A MIXED METHODS INVESTIGATION

OF INTRODUCTORY MUSIC EDUCATION COURSES,

PRESERVICE MUSIC TEACHING EFFICACY BELIEFS,

AND COMMITMENT TO MUSIC TEACHING

by

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Abstract

The purpose of this study was to gain an understanding of practices characteristic of introductory music teacher education courses including timing (when offered), content, and types of teaching experiences. Further, the purpose of this study was to investigate the music teaching efficacy beliefs and commitment to teaching of preservice music teachers when enrolled an introductory music education course. Research questions addressed the status of introductory music education courses with respect to content, teaching and field experiences, and year/semester offered, the status of preservice music teachers' music teaching efficacy beliefs and commitment, and preservice music teachers' perceptions regarding the types or characteristics of experiences that contributed to their music teaching efficacy beliefs or commitment.

This study was conducted in a sequential explanatory mixed methods design, organized into two strands (Strand I-Quantitative; Strand II-Qualitative). Forty-two music teacher educators and 684 introductory music education students from 41 NASM accredited institutions completed researcher-created Strand I questionnaires. Twenty-four preservice music teachers participated in Strand II interviews. Descriptive statistics and principal components analyses were computed for Strand I variables. Group differences and correlational analyses of music teaching efficacy beliefs and commitment were explored. Strand I analyses informed Strand II sampling and data collection methods. Interview transcripts were analyzed using multiple levels of coding. Aggregate pattern codes and cross-case themes emerged from Strand II data analysis.

Results indicate that introductory music education courses are typically offered during the freshman or sophomore year and include a wide variety of course content. Preservice music teachers' efficacy beliefs can be interpreted as having two dimensions: personal music teaching efficacy beliefs and classroom management efficacy beliefs. Mixed methods analyses indicate that introductory music education students' music teaching efficacy beliefs can be impacted by a variety of experiences, including mentoring, peer interaction, and field experience. Commitment may also be strengthened by mentoring, though instances of weakening influence were rare. Additional qualitative themes address the experiences perceived by participants as influential to music teaching efficacy beliefs or commitment, as well as qualities of productive field experiences and mentoring relationships.

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Chapter I

"Although the process of becoming a teacher begins before preservice music students

enter the program and does not end on its completion, the teacher education program

represents the most intensive and formal effort to prepare music teachers for teaching."

(Forsythe, Kinney, & Braun, 2007, p. 19)

Introduction

The National Association of Schools of Music (NASM) was founded in 1924 for the

purpose of establishing consistency in music degree programs and setting minimum standards for

music degrees (NASM, 2011). NASM, along with other accrediting organizations, sets the

standards for music teacher education programs, which address a wide array of expectations for

preservice music teachers, including musical content knowledge and performance competencies,

teaching competencies, and professional behaviors. NASM asserts that institution-level curricula,

based on recommended standards and competencies should enable preservice music teachers to

develop a range of knowledge and skills necessary for entry into the profession of music

education (NASM, 2011).

Music teacher education programs are comprised of a broad series of requirements,

including a sequence of coursework, electives, and other experiences thought to be essential for

the preparation of competent music teachers. Included in the NASM *Handbook* is a list of

general guidelines regarding the proportioning of credit hours for music education degrees,

including studies in basic musicianship and performance (50%), general studies (sometimes

referred to as "core" requirements) (30-35%), music education courses, and professional

education (15-20%). Music education courses specifically mentioned in the NASM *Handbook*

(NASM, 2011) include methods courses (e.g., elementary, secondary), and techniques courses

(secondary instruments). NASM recommends that methods courses be taught by music education faculty with successful K-12 music teaching experience, and that institutions encourage observation and teaching experiences prior to formal admission to the teacher education program (NASM, 2011).

The National Association for Music Education encourages institutions of higher education to include laboratory courses, early field experience, and teaching practicum within music teacher education curricula (MENC Task Force on Music Teacher Education, 1987). In combination, these elements contribute to the personal, intellectual, and professional development of preservice music teachers. In addition to coursework in musical topics, the inclusion of such topics as educational psychology, instructional design, educational technology, working with diverse learners are recommended as valuable in developing the types of knowledge and skills necessary for success in the music education profession. Despite these guidelines and recommendations, opinions concerning best practices in music teacher education and program design vary considerably (Forsythe, Kinney, & Braun, 2007).

Asmus (2001) encourages music teacher educators to base curricular requirements upon the needs of the K-12 communities in which music teachers will seek employment, cautioning music teacher educators to create quality course experiences for preservice music teachers, utilizing departmental strengths and intuition about K-12 music education to do so. According to Wiggins (2007), curriculum should provide opportunities for preservice teachers to develop knowledge and understanding of both theory and practice. Wiggins promotes connectivity, or synthesis across courses, wherein coursework in educational psychology is directly applied within methods courses and field experiences.

Music teacher education coursework is designed to provide preservice teachers with the musicianship skills, musical content knowledge, and pedagogical knowledge necessary for success in K-12 music teaching (Hourigan & Schieb, 2009). Topics typically addressed through methods courses include rehearsal techniques, lesson planning, pedagogy, classroom management, and assessment, while class discussions, lesson plan development, and observation of K-12 classrooms are among the most commonly included activities (Hewitt & Koner, 2011).

Many institutions of higher education have added an introductory music education course to their music teacher education program in recent years (Wiggins, 2007). These courses often precede any other undergraduate music education experiences, and may therefore play a significant role in shaping preservice music teachers' knowledge and beliefs. Such courses may include both teaching and field experiences, and cover material ranging from historical foundations of the music education profession, to philosophical underpinnings, to basic educational psychology and teaching practices.

Although little is known about the impact of course experiences on introductory music education students, student teachers report gaining necessary pedagogical skills from applied lessons, conducting and ensemble experience, methods courses, and field experiences. Both student teachers and early-career teachers identify methods classes and field experiences as the most beneficial portions of their undergraduate education (Brophy, 2002; Hourigan & Schieb, 2009; McDowell, 2007), and suggest that the undergraduate music education curriculum should be evenly divided between coursework and field experience. Field experience has also been demonstrated to encourage reflective practice (Reynolds & Conway, 2003; Reynolds et al., 2005), and have a positive impact on commitment to music teaching (Allen, 2003).

In terms of music teacher identity development, researchers have found that students entering undergraduate music education programs have strongly established performer identities (Austin et al., 2010; Beynon, 1998; Froehlich & L'Roy, 1985; Hellman, 2007; Isbell, 2008; Roberts,1991). Once labeled as music education majors, preservice teachers may be ascribed a lower level of social status than performers (Roberts, 1991). However, a prime contributor to music teacher socialization, and therefore identity development, is field experience during the music teacher education program. Field experience is essential, not only to the development of pedagogical skills, but also to the development of music teacher identity and beliefs (Ballantyne & Packer, 2004; Conkling, 2003; Conway, 2002; Haston & Russell, 2012; Isbell, 2008; Woodford, 2002).

Psychological constructs. Commonly defined as a set of individual beliefs regarding a teacher's ability to affect change in a classroom setting (Woolfolk & Hoy, 1990) teaching efficacy beliefs is associated with professional behavior as well as student performance (Ross, 1992; Tshannen-Moran & Woolfolk-Hoy, 2001). Teachers' efficacy beliefs are connected to attitudes and behaviors such as persistence, effort, commitment, and student expectations (Bandura, 1997; Brouwers & Tomic, 2001; Flores, 2006; Gordon et al., 1998; Henson, 2002). Teaching efficacy beliefs are also related to student achievement (Ashton, Webb, & Doda, 1983; Ashton & Webb, 1986; Brookover, Beady, Flood, Schweitzer, & Wisenbaker, 1979), students' efficacy beliefs (Anderson, Greene, & Loewen, 1988), and student motivation (Midgely, Feldlaufer, & Eccles, 1989).

Commitment to teaching, or the strength of an individual's desire to remain a part of the teaching profession (Ware & Kitsantas, 2007), is linked to retention (Billingsley, 1992; Darling-Hammond, 1990), effectiveness (Karakus & Aslan, 2009), persistence, and efficacy beliefs

(Coladarci, 1992; Evans & Tribble, 1986; Erwan, 2010). Both undergraduates and in-service teachers identify specific challenges as potentially damaging to their professional commitment. Perceived lack of support, inadequate preparation, and challenges with classroom management are cited among the most frequent frustrations by early-career teachers (Bernhard, 2005; Hamilton, 2003; Killian & Baker, 2006). Somewhat similarly, undergraduates identify performance difficulties, erosion of musical confidence, and various personal issues as reasons for withdrawal from a music education degree program (Gavin, 2012).

Preservice music teacher commitment has been studied within the context of attrition from an undergraduate music education degree program (Gavin, 2012). However, commitment and teaching efficacy beliefs have not been examined in relation to each other, or within the context of music teacher preparation. While many scholars have addressed the need for increased focus and research on various aspects of music teacher education programs (e.g., application of content and pedagogical knowledge to practice, field experiences, classroom management) (Brophy, 2002; Dillon, 2004; Hourigan & Schieb, 2009; Wiggins, 2007), significantly fewer have examined the role of course experiences in shaping preservice music teachers' teaching efficacy beliefs or commitment to the profession.

Problem

Although guidelines exist for the broad range of competencies required for all preservice music teachers, and some courses have become almost ubiquitous in their inclusion in music teacher education programs, practices surrounding introductory music education courses remain largely unclear. Research in music teacher education has demonstrated the existence of common practices in program structure (Asmus, 2001), and methods course content (Hewitt & Koner, 2011), as well as trends in preservice music teacher identity development (Allen, 2003; Haston &

Russell, 2012; Isbell, 2007). Little is known however, about introductory music education courses, as no research has been conducted to establish an understanding of the timing, structure, and content of such courses. As the earliest music education course experience, introductory level courses may play a pivotal role in molding preservice music teachers' knowledge and beliefs.

Introductory music education students are, similarly, a significantly under-researched population. A variety of research has been conducted on junior-level methods students (Della-Pietra & Campbell, 1995; Haston, & Russell, 2012; Robinson, 2001), and student teachers (Bergee, 1992; Madsen, Standley, & Byo, 1992; Teachout, 2001), however no studies have examined a population comprised specifically of introductory music education students.

Two important psychological constructs developed over the course of a music teacher education program, are teaching efficacy beliefs and professional commitment. Teaching efficacy beliefs have a direct connection to the types of attitudes and behaviors teachers exhibit, specifically the amount of effort put forth in a task, and the degree of persistence maintained throughout (Flores, 2006). Teaching efficacy beliefs and professional commitment have a demonstrated relationship (Coladarci, 1992; Evans & Tribble, 1986; Erwan, 2010; Tschannen-Moran & Hoy, 2001). More efficacious teachers tend to be more committed to their profession (Coldarci, 1992), and in fact, teaching efficacy beliefs may be a predictor of teachers' career commitment or longevity (Erwan, 2010).

Although these constructs have long-term implications for preservice music teachers' success, it is unclear how and when preservice teachers' efficacy beliefs begin, or how they may grow and evolve as a result of undergraduate experiences. (Charalambous, Philippou, & Kyriakides, 2008). Bandura's (1986; 1997) theory of self-efficacy suggests that efficacy beliefs

may be most malleable early in the learning process, and thus the earliest courses or experiences within a teacher education program could be critical in terms of long term development of teaching efficacy beliefs. There is a distinct lack of knowledge however, concerning teaching efficacy beliefs and commitment, particularly in the beginning stages of a music education degree program.

Music Teacher Education Programs

Before beginning a discussion of the theories underlying this study, it is first necessary to describe the context in which these theories will be examined.

Music teacher education coursework. In addition to basic coursework (e.g., techniques, methods, conducting, ensembles, and other music courses) most music teacher education programs provide preservice teachers with opportunities for practicing teaching in peer groups as well as in authentic school contexts. K-12 observations and practicum teaching, as well as peer teaching and other laboratory experiences are commonly included in various music education courses, however, these experiences are widely varied across music teacher education programs (Powell, 2011; McDowell, 2007; Reynolds & Conway, 2003). Some research has been conducted on music teacher education coursework and music teacher education program design (Asmus, 2001). Prior studies have investigated content, pedagogy, and assessment in instrumental methods courses (Della-Pietra & Campbell, 1995; Haston, & Russell, 2012; Robinson, 2001), music courses for elementary education majors (Gauthier & McCrary, 1999; Koops, 2008; Propst, 2003); university music appreciation courses (Price, 1988), music theory courses (Harrison, 1990a; 1990b). No studies however, have been focused on the development of beliefs within the context of introductory music education courses.

Introductory music education courses.   Textbooks written specifically for use in introductory music education courses address topics such as the history of music education, philosophical or sociological positions concerning the importance of teaching music (Campbell, Demorest, & Morrison, 2008), basic child development and learning psychology (Campbell, Demorest, & Morrison, 2008; Erwin et al., 2003; Hoffer, 1992; Mark & Madura, 2009), incorporation of technology (Erwin et al., 2003; Mark & Madura, 2009), classroom management, teacher-student relationships (Hoffer, 1992; Mark & Madura, 2009), and various discipline specific elements (e.g., band, orchestra, choir, general music) including repertoire selection and specific pedagogies (Campbell, Demorest, & Morrison, 2008; Erwin et al., 2003; Hoffer, 1992). While some universities utilize these texts and include their content in an introductory music education course, other schools use more than one book, or a collection of source readings. Additionally, although texts written for introductory music education courses include many topics that are relevant and helpful for preservice teachers' learning and socialization into the profession, these texts do not specifically address the development of psychological constructs and beliefs such as music teaching efficacy beliefs and commitment to music teaching. There is a need for exploration of such constructs within the context of introductory music education courses.

Theoretical Framework

Self-efficacy.   Within the Social Cognitive Theory, Bandura (1986) defines self-efficacy as a person's beliefs about their capabilities to produce an effect in a specific context. Self-efficacy beliefs are different from self-esteem, Bandura suggests, in that self-efficacy beliefs are a judgment of personal capability, not of self worth. There are two main components that make up the construct of self-efficacy: outcome expectancies, and efficacy beliefs. An outcome

expectancy is the belief that a certain behaviors will lead to specific outcome. Efficacy beliefs are individuals' beliefs about their own competence to bring about a particular outcome.

Bandura (1997) suggests that efficacy beliefs are multidimensional, and vary in several important ways: level, strength, and generality. Level refers to the complexity of task demands in which a person feels efficacious. A person may have a high level of self-efficacy beliefs for complex tasks in one domain, while possessing efficacy beliefs to perform only simple or moderately difficult tasks in another. Efficacy beliefs also vary in strength. Bandura states that weaker efficacy beliefs are easily negated by challenging or negative experiences, while stronger efficacy beliefs lead to perseverance in a task. Finally, efficacy beliefs vary in generality. That is, individuals may believe themselves to be efficacious across a wide array of activities within the same domain, or only in certain areas.

Similar to the variance in efficacy beliefs, outcome expectancies can take three major forms (Bandura, 1986). Within each form, positive expectations function as incentives, while negative expectations function as deterrents. Outcome expectancies can be in the form of physical expectations, such as sensory experiences. They can be social expectations such as approval, rejection, or status, and self-evaluative. Outcome expectancies can also be self-evaluative, or reactions to one's own behavior, which in turn impact efficacy beliefs. Figure 1.01 depicts the causal relationship Bandura outlines between efficacy beliefs and outcome expectations (1977b, p. 193).

Figure 1.01. Relationship between personal efficacy beliefs and outcome expectations
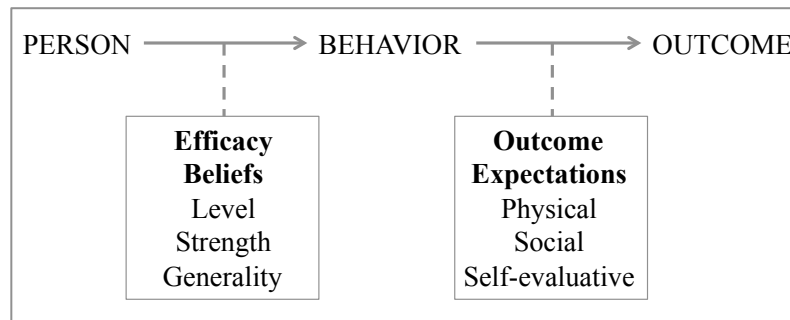
Because people value outcomes, and see outcomes as contingent upon a particular behavior, they rely on their own efficacy beliefs in determining a course of action to pursue. Efficacy beliefs also determine how long a person persists in a particular course of action, and individuals may avoid or devalue tasks for which they do not feel efficacious.

Development of self-efficacy beliefs. Self-efficacy beliefs are not a fixed capability, but rather, is a multiplicative aptitude that incorporates the sum total of cognitive, behavioral, social, and emotional sub-skills in a particular area (Bandura. 1997). Effective functioning in any realm requires efficacy beliefs as well as skills. The most effective or influential way to develop self-efficacy beliefs is through enactive mastery experiences—success in a particular task or domain (Bandura, 1997)—as this type of experience provides the most trustworthy evidence regarding whether or not an individual is capable of success in a particular task. A person who experiences only successful enactive mastery experiences comes to expect success, and may be frustrated by failure. The development of strong self-efficacy beliefs therefore, requires experiences with success as well as overcoming failure.

Self-efficacy beliefs can also be developed through vicarious learning (Bandura, 1997) that occurs through modeling or observation. Vicarious acquisition of self-efficacy beliefs requires that an individual gleans an approximation of their own capabilities by observing others. This process is therefore most effective when the model is closely related to an individual. In

certain contexts, individuals may even seek proficient models in order to better appraise their own abilities.

Verbal persuasion is a third avenue of strengthening self-efficacy beliefs. Bandura (1997) suggests that self-efficacy beliefs may be better sustained when presented with challenges if significant others express confidence in an individual's skills capabilities. Encouragement and discouragement may also have positive and negative effects on self-efficacy beliefs, respectively. The effect of verbal persuasion on self-efficacy beliefs is dependent upon the relationship between the giver and receiver of feedback, including history, trustworthiness, and perceived expertise. Bandura indicates that enactive mastery experiences produce stronger and more generalized feelings of self-efficacy beliefs than experiences that are predominantly vicarious or verbal.

Outcomes associated with self-efficacy beliefs. Self-efficacy beliefs have an influence on cognitive processes such as goal-setting and commitment. Self-efficacy beliefs also play a role in motivation—individuals' actions are guided by their beliefs regarding what they are able to do, as well as their beliefs about causes of success and failure. Self-efficacy beliefs can play a role in affective processes such as anxiety arousal, as individuals who believe in their ability to exercise control over stressors are less likely to experience high anxiety. Finally, self-efficacy beliefs can mediate performance. The self-efficacy beliefs with which an individual approaches a task may determine whether that individual makes effective or poor use of their capabilities (Bandura, 1997).

Teaching efficacy beliefs. A body of research on teaching efficacy beliefs has grown out of Bandura's (1997) Social Cognitive Theory, and his construct of self-efficacy beliefs. Bandura suggests that self-efficacy beliefs can vary in generality, among other possible

dimensions. The construct of teaching efficacy beliefs is, therefore, a contextualized but broader type of self-efficacy beliefs—contextualized in that teaching efficacy beliefs deal with elements of the teaching profession, but generalized in that they are referred to as a whole construct, rather than at the level of specificity of attendance-taking efficacy beliefs, student assessment efficacy beliefs, or lesson plan writing efficacy beliefs. In other words, teaching efficacy beliefs encompass a wide range of tasks related to teaching. Teaching efficacy beliefs have been defined as a teacher's "judgments of his or her personal ability to execute particular courses of action" (Woolfolk & Hoy, 1990, p. 81). That is, teaching efficacy beliefs are an individual's broad sense about his or her own "capabilities to bring about desired outcomes of student engagement and learning, even among those students who may be difficult or unmotivated" (Tschannen-Moran & Woolfolk-Hoy, 2001, p. 783). This is an example of Bandura's (1997) concept of "generality," in that teaching encompasses a wide array of tasks, behaviors, and desired outcomes. Teaching efficacy beliefs can be content-specific (e.g., mathematics, reading, music), task-specific (as described above) or more general. Teaching efficacy beliefs encompass teacher competencies, student outcomes, and elements related to a school community.

Teaching efficacy beliefs are influenced by the same types of experiences Bandura describes in relation to the development of self-efficacy beliefs. Teaching efficacy beliefs are strengthened by enactive mastery experiences, such as successful teaching, and may be negatively impacted by a sense of failure in teaching (Hoy & Spero, 2005). One powerful aspect of teaching efficacy beliefs is their cyclical nature (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). Proficiency in performance creates an enactive mastery experience, which provides new information used to shape teaching efficacy beliefs. Stronger teaching efficacy beliefs are related to greater effort as well as teacher persistence. Highly efficacious teachers persist in efforts to

help struggling students, and tend to criticize less when students give incorrect responses

(Gibson & Dembo, 1984). Figure 1.02 illustrates the cyclic nature of teaching efficacy beliefs, as

outlined by Bandura (1997) and Tschannen-Moran, Woolfolk Hoy, and Hoy (1998).

Figure 1.02. Cyclic nature of teaching efficacy beliefs
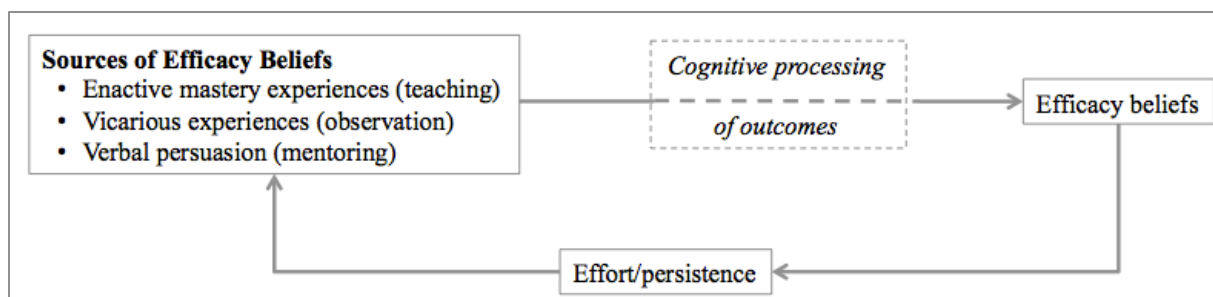
In place of or in addition to enactive experiences, teachers can develop teaching efficacy

beliefs through vicarious learning in the form of modeling, observation, and peer teaching

experiences. Vicarious experiences are of particular importance for preservice teachers'

development of teaching efficacy beliefs, as these individuals likely have limited enactive

experiences (Charalambous et al., 2008; Labone, 2004). Teaching efficacy beliefs can also be

strengthened or weakened based upon feedback provided by significant others. These beliefs are

often future-oriented (Hoy & Spero, 2005), such that teaching efficacy beliefs may influence

commitment to teaching, as well as short and long-term career goals (Flores, 2006; Schmidt,

Zdinski, & Ballard 2006).

Components of teaching efficacy beliefs. Although debated in the research literature,

there are two generally agreed upon components of teachers' efficacy beliefs (Ashton, Olejnik,

Crocker, and McAuliffe, 1982): teaching efficacy beliefs, and personal teaching efficacy beliefs.

Teaching efficacy beliefs are more generalized beliefs about the relationship between teaching

and learning. That is, can teachers, in general, make a difference in students' learning and

achievement? Personal teaching efficacy beliefs are a teacher's individual belief about her own

effectiveness as an educator. These components consistently emerge from research involving teaching efficacy beliefs of in-service teachers.

Research has also uncovered the importance of content-specific teaching efficacy beliefs (e.g., music teaching efficacy beliefs, science teaching efficacy beliefs) (Charalambous et al., 2008), and classroom management efficacy beliefs (Bergee, 2002; Soodak & Podell, 1996). Although it is not entirely clear whether teaching efficacy beliefs and personal teaching efficacy beliefs are relevant components when studying preservice teachers, who often lack consistent K-12 classroom experience, context-specific efficacy beliefs and classroom management efficacy beliefs have been more consistently identified in studies of preservice teachers.

Measurement of teaching efficacy beliefs. Teaching efficacy beliefs were first studied in two investigations by the Rand Corporation (Armor, Conry-Osequera, Cox, Kin, McDonnel, Pascal, Pauly, & Zellman, 1976; Berman, McLaughlin, Bass, Pauly, & Zellman, 1976). The authors of these studies concluded that teaching efficacy beliefs were one of the best predictors of increases in student achievement scores. Building upon the prior Rand Corporation studies, Ashton, et al (1982) developed an instrument made up of fifteen specific scenarios commonly confronted by classroom teachers, each representing personal teaching efficacy beliefs. Participants in this study were asked to rate their level of effectiveness at handling each situation.

Several measures of teaching efficacy beliefs grew out of this tradition, including the Teacher Efficacy Scale (Gibson & Dembo, 1984), the Teaching Self-Efficacy Scale (Tschannen-Moran & Woolfolk-Hoy, 2001), the Science Teaching Efficacy Belief Instrument (Riggs & Enochs, 1990), The Personal Teaching Efficacy Scale (Ashton, Olejnik, Crocker, & McAuliffe, 1982), the Ashton Vignettes (Ashton, Buhr, & Crocker, 1984), the Teacher Self-Efficacy Scale

(Bandura, 1990), the Teacher Efficacy Scale (Emmer & Hickman, 1991), and the same measure TES-Revisited (Hagen, Gutkin, & Wilson, 1995).

The most widely used of these measures is Gibson and Dembo's (1984) Teacher Efficacy Scale (TES). This measure is comprised of 30 items originally geared toward the measurement of the two dimensions of Bandura's theory: self-efficacy beliefs and outcome expectations. In their study of 208 elementary school teachers, Gibson and Dembo (1984) utilized principal components analysis with varimax rotation, yielding two factors, which accounted for a combined 29% of the total variance in efficacy beliefs. Gibson and Dembo reported that these two factors corresponded with Bandura's dimensions of self-efficacy beliefs and outcome expectations, and opted to conceptualize them as Personal Teaching Efficacy and Teaching Efficacy, respectively.

Suggesting that the measurement of teaching efficacy beliefs required developing items surrounding specific elements of teachers' roles, Bandura (1997) proposed a 30-item scale measuring teaching efficacy beliefs in seven dimensions, including instructional self-efficacy, disciplinary self-efficacy, and efficacy for elements such as parental involvement, community involvement, and school climate. Although this measure has not been widely adopted in subsequent studies, it was from Bandura's perspective that Tschannen-Moran and Woolfolk-Hoy (2001) developed the Teachers' Sense of Efficacy Scale (TSES) (24 item scale, which facilitates analysis of in-service teachers' efficacy beliefs).

Woolfolk-Hoy (2000) also developed the Teaching Confidence Scale (TCS)—a program-specific measure of preservice teachers' teaching efficacy beliefs. This measure differs from those designed for use with in-service teachers, as it was created specifically for the purpose of assessing teaching efficacy beliefs in several specific competencies required by the teacher

education program at The Ohio State University (Woolfolk-Hoy, 2000). In addition to addressing personal teaching efficacy beliefs (content specific items in mathematics and science) and classroom management efficacy beliefs, the TCS also includes several items related to specific instructional practices or innovations. Complete versions of the TES (Gibson & Dembo, 1984), TCS (Woolfolk-Hoy, 2000), and the TSES (Tschannen-Moran & Woolfolk-Hoy, 2001) are presented in Appendix A.

Challenges of measurement. Researchers utilizing Gibson and Dembo's (1984) TES have confirmed a two factor model (Coladarci & Breton, 1997; Guskey & Passaro, 1994; Soodak & Podell, 1996; Wolfolk, Rosoff, & Hoy, 1990), but are not always in agreement regarding what the factors represent. Guskey and Passaro (1994) suggested that the loading of items into two factors was a consequence of the way items were worded, rather than the content of the items themselves. They pointed out that Personal Teaching Efficacy items were positively worded, beginning with "I can," while Teaching Efficacy items were worded negatively, using language such as "teachers cannot." In order to test this theory, Guskey and Passaro (1994) randomly reworded the TES items, and determined that although there were still two factors, they represented an internal and external orientation (similar to locus of control) as opposed to Gibson and Dembo's Personal Teaching Efficacy and Teaching Efficacy categories. In a later study, Soodak and Podell (1996) questioned this finding, suggesting that the two factors actually represented teaching efficacy beliefs and classroom management efficacy beliefs.

Tschannen-Moran and Woolfolk-Hoy's (2001) TSES, adapted from Bandura's (1997) own measure of teaching efficacy beliefs, resulted in a three factor model: students' involvement in learning, adoption of teaching strategies, and classroom management. When administered to preservice teachers, however, the TSES items were all grouped into one factor. Tschannen-

Moran and Woolfolk-Hoy (2001) suggested that this may be because these three facets of teaching efficacy beliefs have little meaning for preservice teachers, or are viewed in unidimensional terms, as preservice teachers lack adequate experience in a K-12 position. As the question of how best to measure preservice (as opposed to in-service) teaching efficacy beliefs continues to arise, it is important to take into account item wording, content, and in particular, measures developed specifically for use with preservice teachers, such as Woolfolk-Hoy's (2000) TCS.

As outlined above, some researchers have discovered inconsistencies in the two factor model (general teaching efficacy beliefs, personal teaching efficacy beliefs) utilized in Gibson and Dembo's (1984) work. Others have suggested that this commonly used measure is not fully valid when collecting data from preservice teachers (Lin & Taylor, 2002; Emmer & Hickman, 1991; Guskey, 1988; Soodak & Podell, 1996; Woolfolk & Hoy, 1990). Tschannen-Moran and Woolfolk-Hoy (2001) assert that most existing measures of teaching efficacy beliefs (such as Gibson & Dembo's TES, and their own TSES) address a range of capabilities that while related to teaching, are too broad for use with preservice populations, and are therefore in need of validation and revision (Henson, 2002; Tchannen-Moran & Hoy, 2001). Still others have suggested a need for content-specific measures of teaching efficacy beliefs, based on research that demonstrates a preservice split between content-specific teaching efficacy beliefs and classroom management efficacy beliefs. A third area of criticism revolves around the wording of questionnaire items—first person singular, or more generally stated; positively or negatively worded (Guskey & Passaro, 1994; Hagen, Gutkin, & Wilson, 1995). Finally, the use of different measures throughout this body of research creates problems for those interpreting study results.

Conclusions cannot sufficiently be drawn across studies in which differing measures of teaching efficacy beliefs have been utilized (Benz, Bradley, Alderman, & Flowers, 1992).

>   ***Outcomes related to teaching efficacy beliefs.*** Results of some research on practicing teachers have indicated a strongly significant relationship between teachers' efficacy beliefs and increases in student achievement (Ashton, Webb, & Doda, 1983). Teachers with strong teaching efficacy beliefs are more likely to believe that all students have the potential to achieve at a high level, and are also more likely to feel personally responsible for student learning than teachers with weaker teaching efficacy beliefs (Ashton & Webb, 1986; Bandura, 1997; Brouwers & Tomic, 2001; Henson, 2002; Gordon et al., 1998). Teachers with strong teaching efficacy beliefs are more willing to adopt new classroom practices, are more pedagogically innovative, are more likely to persist when working with struggling students, and are less likely to criticize a student for giving a wrong answer (Tschannen-Moran & Woolfolk-Hoy, 1998). There is additional evidence that teachers' efficacy beliefs are related to teaching effectiveness, affecting student learning and achievement (Brookover, Beady, Flood, Schweitzer, & Wisenbaker, 1979).

Generally speaking, results of research in this area support the importance of strong teaching efficacy beliefs. The growth of knowledge throughout a teacher preparation program may strengthen preservice teachers' efficacy beliefs (Lin & Taylor, 2002). Preservice teachers are sometimes overly efficacious prior to "real-world" teaching experience (Broussard, Book, & Byars,1988), however when nearing the end of their program of study some preservice teachers may develop stronger beliefs in their abilities to help students succeed. (Ares, Gorrell, & Boakari, 1999; Gorrell, Ares, & Boakari, 1998). Kalian and Freeman (1987) determined that preservice teachers with stronger teaching efficacy beliefs were more likely to believe that

teachers should be held accountable for student learning, and Evans and Trimble (1986) found a significant correlation between teaching efficacy beliefs and commitment to teaching among preservice teachers.

Commitment to teaching. Commitment to teaching is generally defined as the strength of an individual's desire to remain a part of the teaching profession (Ware & Kitsantas, 2007). Professional commitment is linked to teacher retention (Billingsley, 1992; Darling-Hammond, 1990), school environment, teaching effectiveness (Karakus & Aslan, 2009), and teaching efficacy beliefs (Coladarci, 1992; Evans & Tribble, 1986; Erwan, 2010).

In particular, teaching efficacy beliefs and professional commitment have a demonstrated relationship (Coladarci, 1992; Evans & Tribble, 1986; Erwan, 2010; Tschannen-Moran & Hoy, 2001). More efficacious teachers tend to be more committed to their profession (Coldarci, 1992), and in fact, teaching efficacy beliefs may be a predictor of teachers' career commitment or longevity (Erwan, 2010).

Measurement of commitment to teaching. Commitment to teaching has been examined empirically in two distinct ways. When examining the commitment of experienced teachers, researchers commonly inquire whether, given the chance to begin their career over again, they would still choose to become a teacher (Borg & Riding, 1991; Coldarci, 1992; Darling-Hammond, 1990; Riehl & Sipple, 1996). When investigating the commitment of preservice or early-career teachers, however, researchers most often ask participants to respond to a series of items related to their longevity in the profession (Billingsley, 1992; Schmidt, Zdinski, & Ballard, 2006;), pride in being/becoming a teacher (Mueller, Finley, Iverson, & Price, 1999) level of interest in changing occupations (Fresko, Kfir, & Nasser, 1997), and level of

enjoyment in their current position (Chan et al., 2008; Karakus & Aslan, 2009; Riehl & Sipple, 1996).

Need for the Study

While some literature on preservice teaching efficacy beliefs indicates that they are likely to shift as individuals progress through a music teacher education program (Lanier, 1984; Narang, 1990, Walker, 1992), researchers have not yet reached a consensus regarding where preservice teachers' teaching efficacy beliefs begin, or how they may grow and evolve throughout teacher preparation (Charalambous, Philippou, & Kyriakides, 2008). Other researchers suggest that once teaching efficacy beliefs are established, they may be more resistant to change (Hoy, 2000). This reifies the importance of developing an understanding of teaching efficacy beliefs in the beginning stages of a teacher-training program, as well as an understanding of the types of experiences that contribute to the development of strong teaching efficacy beliefs.

Despite the need for greater understanding concerning the foundation and development of teaching efficacy beliefs at the preservice level, most studies of teaching efficacy beliefs have been conducted with older undergraduates (junior or senior level) or in-service teachers. Many studies have been conducted in the disciplines of science or math (Charalambous, Philippou, & Kyriakides, 2008; Riggs & Enochs, 2007; Smolleck & Mongan, 2011; Wenner, 1993; 2001), or in a manner that suggests that teaching efficacy beliefs are transcendent across disciplines. However, both research and theory suggest that teaching efficacy beliefs are context-specific (Bandura, 1997; Charalambous, Philippou, & Kyriakides, 2008), begin in the early stages of teacher education programs (Martin, 1989), and are considered most impressionable during early stages of learning (Bandura, 1986; 1997).

Introductory level music teacher education courses are therefore a critical context for inquiry regarding the development of teaching efficacy beliefs. Because Bandura (1977; 1997; 2006) and others (Brouwers & Tomic, 2001; Flores, 2006; Gordon et al., 1998; Henson, 2002; Russell, 2008, Schmidt, Zdinski, & Ballard, 2006) have identified teaching efficacy beliefs as a key influence in teachers' persistence, innovation, professional commitment, and overall success, it is necessary to examine these constructs and the ways in which they may be developed within the context of a music teacher education program (Benz, Bradley, Alderman, & Flowers, 1992).

Another problematic element of prior research in this area is that studies of preservice music teachers' efficacy beliefs or career commitment have been restricted almost exclusively to quantitative methodologies. Some researchers have advocated further inquiry into the construct of preservice teachers' teaching efficacy beliefs (Hoy & Spero, 2005; Labone, 2004) through the use of more diverse methodologies, including qualitative and mixed method designs (Henson, 2002; Tchannen-Moran et al., 1998). Anita Woolfolk Hoy, a leading researcher in the field of teaching efficacy beliefs advocates the use of a qualitative approach in addition to quantitative methodologies, noting that quantitative research alone cannot answer the question of "why" in exploring the development of teaching efficacy beliefs. Woolfolk-Hoy states, "I believe that qualitative methods are appropriate for an exploration of factors that mediate efficacy beliefs' development and cultural influences on the construction of efficacy beliefs" (Shaughnessy, 2004, p. 155). By employing both broad, quantitative methods, and deep qualitative inquiry, this mixed methods study will be an important addition to the existing body of research regarding preservice music teachers' teaching efficacy beliefs, and will provide a unique perspective on the status of teaching efficacy beliefs and commitment to music teaching in the early stages of music teacher education coursework.

In order to determine the most effective practices, or to make updates or amendments to current course requirements, it is first necessary to gain an understanding of the status of such courses including trends, commonalities, and variance in practices. This study will serve as a baseline for understanding practices regarding introductory music education coursework. Further, this study will present important data regarding the types of experiences that contribute to music teaching efficacy beliefs, as well as possible relationships between teaching efficacy beliefs and commitment to music teaching. The combination of course-related data (timing, structure, types of teaching experiences), and psychological data (teaching efficacy beliefs and commitment to teaching) presented in this study will serve as a valuable resource for those seeking to design an effective introductory music education course that will prepare preservice music teachers to successfully navigate upper-division music education coursework, teaching experiences, and entry into the profession. Understanding preservice music teachers' commitment and teaching efficacy beliefs in introductory level music education courses can facilitate the structuring of undergraduate coursework and experiences to provide opportunities for growth both personally and professionally and to encourage goal-setting, persistence when faced with challenges in the classroom, and increase longevity in the profession.

Purpose & Research Questions

The purpose of this study was to gain an understanding of practices characteristic of introductory music teacher education courses including timing (when offered), content, and types of teaching experiences. Further, I sought to investigate the music teaching efficacy beliefs and commitment to teaching of preservice music teachers when enrolled an introductory music education course. Finally, the impact of introductory music education course experiences on preservice music teachers' music teaching efficacy beliefs and commitment to teaching was explored. Nine quantitative and qualitative research questions, as well as one mixed methods research question, guided this inquiry:

Strand I: Quantitative

1. What is the current status of introductory music education courses with respect to content, amount and type of teaching and field experiences, and year/semester offered in selected Bachelor of Music Education degree programs in the United States?

2. What is the status of preservice music teachers' music teaching efficacy beliefs while enrolled in an introductory music education course?

3. What is the status of preservice music teachers' commitment to music teaching while enrolled in an introductory music education course?

4. What, if any relationships exist between preservice music teachers' music teaching efficacy beliefs and commitment to music teaching while enrolled in an introductory music education course?

5. What, if any other introductory music education course components have a relationship with preservice music teachers' music teaching efficacy beliefs or commitment?

Strand II: Qualitative

6. What is the nature of the activities and relationships that preservice music teachers experience as a part of an introductory music education course?

7. What introductory music education course activities or experiences do preservice music teachers perceive as contributing to their music teaching efficacy beliefs or commitment to music teaching?

8. What background or non-curricular activities or experiences do preservice music teachers perceive as contributing to their music teaching efficacy beliefs or commitment to music teaching?

Mixed Methods Research Question

9. In what ways do survey and interview data align with one another?

Definitions

Teaching efficacy beliefs are typically defined as "the teacher's belief or conviction that they can influence how well students learn" (Guskey & Passaro, 1994). Within the context of music education, Wagoner (2011) defined music teaching efficacy beliefs as "one's sense of his or her ability to affect students in the classroom setting, influence parents, administration, and community, and be resilient in the face of adversity" (p. 8). Because the present study deals with preservice, rather than in-service teachers, I have chosen to amend Wagoner's definition. The following is a list of definitions for important terminology utilized throughout this study.

1. Music teaching efficacy beliefs: An individual's sense of his or her ability to affect students in the music classroom setting. (*Note: The term "efficacious music teacher" is defined as "music teacher who possesses strong music teaching efficacy beliefs.*) This construct is made up of several components:

a. Personal music teaching efficacy beliefs [abbreviated PMTE beliefs]: Teacher's individual beliefs about his or her effectiveness as a music educator

b. General music teaching efficacy beliefs: Teacher's generalized belief about the power of music teachers to affect student outcomes

c. Classroom management efficacy beliefs [abbreviated CME beliefs]: Teacher's individual belief about his or her ability to manage behavioral and other non-content area classroom situations

2. Commitment to music teaching: Teacher's individual strength of desire or motivation to work in the field of music education

3. Teaching/field experience: Several types of teaching and/or field experience will be included in the Preservice Music Teacher Efficacy Scale (PMTES).

a. Peer teaching: Planning and teaching a lesson to a group of peers or classmates within the context of the introductory music education course

b. Practicum teaching: Planning and teaching a lesson to K-12 students in the school music classroom

4. Past experiences: Experiences that occurred prior to the participant's enrollment in an introductory music education course

5. Curricular experiences: Experiences that were included (e.g., assignments, required course elements) in an introductory music education course

6. Non-curricular experiences: Experiences that occurred simultaneously to the participant's enrollment in an introductory music education course, but that were not a part of the course itself

Delimitations

Study participation. Study participation was limited to undergraduate students pursuing a traditional baccalaureate degree (Bachelor of Music Education, Bachelor of Arts, Bachelor of Science) in music education. Students enrolled in post-baccalaureate programs, Master's plus licensure degree programs, or alternative certification programs were not included in the study. Music teacher educator participants were limited to those who were responsible for teaching the introductory music education course at their institution.

Data collection.   No information was collected regarding participants' race or ethnicity. Qualitative interviewees were selected, in part, based upon their willingness to participate. Efforts were made to maximize variation within this reduced sample of participants.

Interviews.   A single interview was conducted with each Strand II participant.

Type(s) of data.   Although Bandura (1997) suggests that self-efficacy beliefs may impact the degree to which an individual uses her capabilities to their fullest extent, that portion of Bandura's theory is outside the scope of this inquiry. No performance or teaching data were collected from participants, and as such, analysis of teaching efficacy beliefs was limited to participants' beliefs and perceived relationships with curricular or extracurricular experiences.

Chapter II

Related Literature

Bandura (1997) identified teaching efficacy beliefs as a type of self-efficacy beliefs. Self-efficacy beliefs have been demonstrated to influence thought patterns, effort, pursuit of goals, persistence when faced with a challenge, and the amount of stress an individual will experience in coping with a demanding task (Bandura, 1977; 1997). Teaching efficacy beliefs, similarly, have a demonstrated relationship with persistence when working with challenging students (Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998), innovation in curriculum (Wenner, 1993), commitment to teaching, and career goals (Bright, 2005; Jones, 1964; Schmidt, Zdinski, & Ballard, 2006).

Teaching efficacy beliefs may be influenced by mentoring (Auh, 2004; Chaffin & Manfredo, 2010), observation (Jeanneret, 1997), teaching experiences (Leader-Janssen, 2006; Lin, Gorrell, & Taylor, 2002) and content knowledge (Smolleck & Mongan, 2011; Swackhamer, 2009; Wenner, 1993), although few researchers have investigated this construct as it pertains to preservice music teachers.

The body of research reviewed in this chapter is organized into three main sections: a) teaching efficacy beliefs (including preservice teachers' teaching efficacy beliefs in non-music subject areas, elementary teachers' music teaching efficacy beliefs, and preservice music teachers' teaching efficacy beliefs), b), commitment to teaching (including music teachers' commitment to teaching), and c) music teacher education coursework.

Teaching Efficacy Beliefs

  Preservice teachers' teaching efficacy beliefs in non-music subject areas.

  Researchers in science, mathematics, reading, and other areas of educational specialization have made efforts to understand the construct of preservice teachers' teaching efficacy beliefs, including the multiple sub-constructs included within the construct of teaching efficacy, group differences across area of specialization or amount of teaching experience, and possible factors affecting teaching efficacy beliefs.

  Researchers have uncovered the content-specific nature of teaching efficacy beliefs (Charalambous, Phillipou, & Kyriakides, 2008), supporting Bandura's (1977) original assertion that self-efficacy beliefs are context specific. Teaching efficacy beliefs have also been linked to experience, with some researchers concluding that experienced teachers had stronger teaching efficacy beliefs (Benz, Bradley, Alderman, & Flowers, 1992), while others suggested that experienced teachers demonstrate slightly weaker teaching efficacy beliefs based on their more realistic view of classroom situations (Wenner, 2001). Some inquiries have highlighted a difference in teaching efficacy beliefs across area of specialization (Evans & Tribble, 1986), and others have indicated that teaching efficacy beliefs are somehow linked with the development of content knowledge (Lin, Gorrell, & Taylor, 2002; Smolleck & Mongan, 2011; Swackhamer, 2009; Wenner, 1993).

  Out of this body of research has grown a set of recommendations for teacher educators and researchers. While background experiences should not be discounted, collegiate experiences and coursework are perhaps more important than background experiences (Wenner, 1993). As such, preservice teachers should be provided with a variety of "real-world" teaching experiences in order to develop teaching efficacy beliefs (Leader-Janssen, 2006). Mentoring and support may

also be crucial in the development of teaching efficacy beliefs (Swackhamer, 2009). Increased efforts are required in order to further explore preservice teachers' teaching efficacy beliefs, as well as to understand the types of experiences that may shape teaching efficacy beliefs during a teacher education program (Leader-Janssen, 2006; Smolleck & Mongan, 2002; Woolfolk & Hoy, 1990).

Tschannen-Moran, Woolfolk-Hoy, and Hoy (1998) found that teachers with high scores on Gibson and Dembo's (1984) Teacher Efficacy Scale (TES) (indicating strong teaching efficacy beliefs) were more likely to persist when working with struggling students, and were less likely to criticize a student for giving a wrong answer. This same group of researchers suggested that teachers' efficacy beliefs scores may predict their level of focus on a specific subject matter while teaching, as well as their confidence in responding to students' needs.

Charalambous, Phillipou, and Kyriakides (2008) adapted the Teacher Sense of Efficacy Scale (TSES) (Tschannan-Moran & Woolfolk-Hoy, 2001) in order to determine whether or not this measure was feasible for use with preservice mathematics teachers. The adapted TSES was administered to 90 preservice teachers enrolled in a field experience course, and the researchers conducted follow up interviews with a purposive sample of eight participants. Results of quantitative and qualitative data pointed to a two-factor model of preservice mathematics teaching efficacy beliefs, made up of mathematics teaching efficacy beliefs and classroom management efficacy beliefs. Charalambous et al. determined that feedback from mentors informed preservice teachers' efficacy beliefs, particularly when students considered mentors to be very knowledgeable or trustworthy. Participant interviews also revealed that preservice math teachers developed teaching efficacy beliefs specifically related to their math teaching capabilities, as opposed to their general teaching competence.

In an exploration of teaching efficacy beliefs across groups with varying levels of teaching experience, Benz, Bradley, Alderman, and Flowers (1992) researched a group of students enrolled in professional education courses, students beginning teacher education programs, student teachers, student teaching supervisors, in-service teachers, and teacher educators ($N = 348$). Benz et al. found that teaching efficacy beliefs scores were highest for more experienced teachers in some instances, however, preservice teachers scored higher in simulated classroom teaching settings. The researchers identified a general trend that practicing teachers tended to have slightly lower efficacy beliefs than preservice teachers or teacher educators, and suggested that this may be due to the real world of day-to-day classroom interactions. Benz et al. suggested increased efforts to explore how preservice teachers perceive their own effectiveness in a classroom situation, as well as efforts to uncover experiences that shape preservice teachers' teaching efficacy beliefs.

Also examining the role of experience in relation to teaching efficacy beliefs, Wenner (2001) compiled multiple studies conducted in the area of elementary teachers' science and mathematics teaching efficacy beliefs, and determined that teachers with more experience (in-service) had stronger teaching efficacy beliefs than preservice teachers. In the area of general teaching efficacy beliefs, preservice and in-service teachers believed similarly, that teachers are responsible and can have an impact on student learning, student motivation, and interest in a subject area. Wenner also found that preservice teachers had a desire for students to ask questions, but had weak efficacy beliefs regarding their ability to answer these questions. Wenner noted that this trend suggests a relationship between content knowledge and teaching efficacy beliefs. Wenner concluded that teaching experience lead to stronger teaching efficacy

beliefs, and it is therefore important to provide preservice teachers with teaching efficacy-building experiences early on in a teacher education program.

In a study of preservice and in-service teachers, Evans and Tribble (1986) compared perceived teaching problems of 179 elementary and secondary teacher candidates, as well as early career teachers. The problems cited by preservice and early career teachers differed, which the researchers attributed to a lack of classroom experience on the part of the preservice teachers. Evans and Tribble also found a significant gender effect for teaching efficacy beliefs: females had stronger teaching efficacy beliefs than males across all teaching specialties. Additionally, preservice elementary teachers scored significantly higher on measures of teaching efficacy beliefs and commitment to teaching than preservice secondary teachers.

Wenner (1993) examined the background knowledge and attitudes toward teaching science of 167 preservice elementary teachers enrolled in an upper level elementary science methods course. Wenner used the Science Teaching Efficacy Belief Instrument (Riggs & Enochs, 1990), comprised of 25 Likert scale items designed to measure teaching efficacy beliefs in science. Preservice elementary teachers had a generally low level of science content knowledge (mean score on science knowledge test under 50%), and a lack of confidence (efficacy beliefs) toward incorporating science instruction into their teaching experiences. Wenner suggested that although high school background courses play some role in content knowledge or teaching efficacy beliefs, college-level instruction is a more significant influence on preservice teachers' knowledge and teaching efficacy beliefs.

In a study of Taiwanese ($n = 240$) and American ($n = 231$) preservice teachers' teaching efficacy beliefs, Lin, Gorrell, and Taylor (2002) surveyed participants at the beginning and end of a teacher preparation program using a revised version of the Gibson and Dembo (1984)

Teacher Efficacy Scale (TES). Lin, Gorrell, and Taylor found that while there were key differences across countries in parental relationships and social situations, all preservice teachers had similar beliefs regarding their ability to adapt pedagogical approaches to meet the needs of students. Researchers suggested that preservice teachers' efficacy beliefs are influenced by teaching experience, increased competence through gaining content or pedagogical knowledge, and through cultural knowledge of the region in which they teach.

In a mixed methods study, Leader-Janssen (2006) examined the impact of a sixteen-week literacy course and reading center practicum experience on preservice elementary teachers' reading content knowledge and teaching efficacy beliefs. Leader-Janssen created the Teacher Efficacy Scale for Teaching Reading (TSETR), adapted from Gibson and Dembo's (1984) measure, as well as Bandura's (1997) measure of teaching efficacy beliefs. The TSETR was administered to a group of preservice elementary teachers at three points throughout the semester, and Leader-Janssen conducted a series of five interviews with a subsample of five participants in order to better understand their learning process and efficacy beliefs for teaching reading. Both control and experimental groups began with relatively strong teaching efficacy beliefs and low content knowledge. At the conclusion of the study, the experimental group (received sixteen-week reading course) showed significantly higher levels of reading content knowledge and stronger efficacy beliefs for teaching reading. Leader-Janssen also found that teaching efficacy beliefs and content knowledge were highly correlated in the posttest. Real-world teaching situations are important for the development of content knowledge, as well as teaching efficacy beliefs.

Hagen, Gutkin, and Wilson (1998) investigated whether preservice teachers' efficacy beliefs concerning "difficult-to-teach children" (p. 169) could be strengthened using vicarious

experiences (observation) and verbal persuasion (guidance from experienced teachers). Eighty-nine undergraduate participants were randomly assigned into control and experimental groups. The experimental group watched a video describing and demonstrating effective behavior-management techniques for challenging students, and also heard teacher testimonials and read published research on the subject. Participants in the experimental group scored significantly higher on the posttest teaching efficacy beliefs measure in two of four categories—personal teaching efficacy beliefs and classroom management efficacy beliefs. Hagen et al. suggested that vicarious experiences and verbal persuasion may have a positive effect on preservice teachers' teaching efficacy beliefs.

Similarly, Cherubini (2007) studied novice teachers in two districts, drawing comparisons between new teacher mentoring and induction practices. Cherubini determined that novice teachers who received individualized support from a more experienced teacher mentor demonstrated stronger teaching efficacy beliefs, while teachers who were mentored in a larger group setting were generally frustrated and did not feel that the mentoring experience was helpful.

Smolleck and Mongan (2011) studied preservice teachers over the course of one semester in effort to determine whether teaching efficacy beliefs change over time. Smolleck and Mongan utilized the Teaching Science as Inquiry (TSI) instrument, developed based on Bandura's (1997) ideas by Smolleck, Zembal-Saul, and Yoder (2006). The measure was divided into items assessing personal teaching efficacy beliefs, and items assessing outcome expectancy. The TSI was administered to thirty-eight preservice elementary teachers enrolled in a science methods course, and researchers also collected qualitative data from participants in order to determine what events may have influenced a change in their teaching efficacy beliefs. Participants

exhibited a positive change in personal teaching efficacy beliefs and outcome expectancy from the beginning to the end of the semester. Preservice teachers indicated that field experiences, opportunities to teach lessons to elementary children, and practice in developing lessons and units were the most significant contributors to higher levels of teaching efficacy beliefs.

Woolfolk and Hoy (1990) used Gibson and Dembo's (1984) Teacher Efficacy Scale (TES) to examine the beliefs of 182 preservice teachers (sophomores and juniors) concerning motivation to teach, control, and teaching efficacy beliefs. Woolfolk and Hoy found that Gibson and Dembo's previously identified dimensions of teaching efficacy beliefs and personal teaching efficacy beliefs held true for participants in this study. Preservice teachers who indicated strong personal teaching efficacy beliefs were more humanistic in their orientation toward pupil control than those with weak personal teaching efficacy beliefs. Neither teaching efficacy beliefs or personal efficacy beliefs were related to preservice teachers' motivational style, however, teaching efficacy beliefs were related to participants' beliefs about "pupil control" (classroom management). As a result of this study, Woolfolk and Hoy suggested that personal teaching efficacy beliefs may be further divided into responsibility for positive student outcomes and responsibility for negative student outcomes.

Teaching Efficacy Beliefs in Music

Research of teaching efficacy beliefs in music has been conducted with populations of both preservice and in-service teachers. Some trends are similar to those highlighted in general education research, while other findings are unique to the realm of music teacher education. Prior teaching experiences and a high level of interest in musical content may contribute to music teaching efficacy beliefs (Auh, 2003; Byo, 1999; Bright, 2005), while collegiate experiences such as practice teaching, mentoring, peer feedback, and class discussion may also have a

positive influence (Auh, 2004; Chaffin & Manfredo, 2010). In contrast, experiences such as demeaning feedback or interruptions to classroom teaching may have a negative impact on preservice music teachers' efficacy beliefs (Chaffin & Manfredo, 2010).

An increase in content knowledge due to musical training (Auh, 2004; Byo, 1999; Bright, 2005; Hewitt, 2003; Jeanneret, 1997), as well as strong modeling from teacher educators (Jeanneret, 1997) has been linked with strengthened music teaching efficacy beliefs. Teaching efficacy beliefs based on past experiences may also have an impact on music majors' career choice and goals (Bright, 2005; Jones, 1964; Schmidt, Zdinski, & Ballard, 2006).

Generally speaking, musical expertise (content knowledge) and teaching experience are agreed upon as important contributors for the development of music teaching efficacy beliefs (Auh, 2004; Bergee, 2002; Hewitt, 2003; Jeanneret, 1997; Thornton & Bergee, 2008). It is the responsibility of teacher educators to convey the importance of undergraduate coursework and teaching experiences, as well as to provide opportunities for positive development of teaching efficacy beliefs (Forsythe, Kinney, Braun, 2007).

Preservice elementary teachers' music teaching efficacy beliefs. In a study of 148 preservice elementary teachers, Hewitt (2003) examined the effects of an elementary music training program. Hewitt collected data on participants' beliefs regarding their capacity for teaching music (music teaching efficacy beliefs), as well as specific beliefs regarding their own performance, listening, and composition abilities. Results of this study demonstrated that the music training program had a positive effect on non-music specialists' music teaching efficacy beliefs, and therefore encouraged the incorporation of music in the elementary classroom. Participants made statistically significant gains in their teaching confidence, as well as in their belief in their own music teaching skills.

Jeanneret (1997) also studied preservice elementary teachers ($N = 222$) enrolled in a music fundamentals courses. Similar to Hewitt's (2003) study, findings indicated that enrollment in a course of this nature significantly strengthened music teaching efficacy beliefs in elementary education candidates, encouraging diversified approaches to incorporating music in the classroom, as well as varied pedagogical approaches to introducing musical material. Jeanneret also noted that preservice teachers' music teaching efficacy beliefs were influenced most when course instructors served as a strong model of delivery and pedagogical strategy.

Auh (2004) similarly found that forty-eight preservice elementary teachers made significant gains in music teaching efficacy beliefs as a result of a musical foundations course. Preservice teachers also cited practice teaching as being a significant contributor to their music teaching efficacy beliefs.

In an earlier study, Auh (2003) investigated the musical profiles—prior experiences, level of expertise—of preservice elementary teachers who indicated a level of strength in their music teaching efficacy beliefs. Students who had prior training in private instrumental lessons, instrumental groups, or choirs were more likely to be confident in their ability to incorporate music into their elementary classroom teaching. Preservice elementary teachers' liking of music was also significantly related to their music teaching efficacy beliefs.

Preservice music teachers' teaching efficacy beliefs. Byo (1999) studied teacher perceptions of factors influencing successful implementation of the National Standards for Music Education. Elementary music specialists ($n = 122$), and fourth grade classroom teachers ($n = 122$) took a survey comprised of seven Likert scale items pertaining to each National Standard. Music specialists were more willing and felt more able to implement all nine National Standards, while general elementary teachers were more likely to indicate needing

assistance from a music specialist before feeling comfortable implementing the National

Standards. Byo suggested that a teacher's interest in the subject, prior experience, and level of

content knowledge influence their music teaching efficacy beliefs. Similarly, Bright (2005)

surveyed music education majors, as well as students of other majors enrolled in college band

programs, and determined that music education majors had stronger music teaching efficacy

beliefs than their non-major peers.

In a qualitative examination of four preservice music teachers, Chaffin and Manfredo

(2010) investigated students' perceptions of the interactions that occurred during and following

their practicum teaching observations. Participants' interviews demonstrated that individualized

written feedback, modeling of teaching strategies, and class discussions were the most beneficial

in encouraging reflection and preparation for future teaching. Preservice teachers also indicated

that feedback after teaching was helpful to their sense of teaching efficacy beliefs, while

interruptions or verbal feedback during their teaching was damaging to their feelings of efficacy

beliefs. Similar to Chaffin and Manfredo, Hancock (2008) found that in-service music teachers'

teaching efficacy beliefs were influenced by their perceived level of support from colleagues,

mentors, and administrators.

To determine the views, including teaching efficacy beliefs, of preservice music teachers

and music teacher educators regarding the National Association of Schools of Music (NASM)

standards for music teacher education, Forsythe, Kinney, and Braun (2007) created a

questionnaire comprised of items taken from the NASM handbook. Twenty music teacher

educators and 53 preservice music teachers agreed in the general importance of all questionnaire

items, and both groups ranked "personal commitment to the art of music" highest. There was a

wider range of responses on questions dealing with the importance of music history knowledge,

however, and both groups ranked the ability to compose near the bottom of the list. When asked about the "learnability" of each item, teacher educators ranked items significantly higher than preservice teachers, indicating a possible lack of preservice teaching efficacy beliefs in certain areas. Forsythe, Kinney, and Braun suggest that preservice teachers may have lacked confidence or may not have felt that certain competencies were important for their future career.

Investigating high school students' motivation for teaching, teacher identity, teaching effectiveness, and classroom management efficacy beliefs, Austin and Miksza (2012) surveyed precollegiate participating in a music teacher recruitment program. Following a twelve-week period of teaching and mentoring middle school band students, the high school teachers demonstrated increases in commitment to music teaching, teacher identity, and classroom management efficacy beliefs. Austin and Miksza recommended assigning teaching responsibilities to high school students in order to promote growth in teaching efficacy beliefs and commitment to teaching.

In a study of 242 preservice music teachers, Thornton and Bergee (2008) found that musical efficacy beliefs contributed to students' interest in becoming a music teacher. In addition to high musical efficacy beliefs (belief in one's ability to achieve musical performance results), participants indicated a desire to influence students through teaching and instill a love of music in their students. Influences on choosing music teaching as a career included important others (former teachers, parents, peers), love of music, love of teaching, and prior teaching experience. Thornton and Bergee highlighted the importance of teaching experience in the development of teaching efficacy beliefs.

Jones and Parkes (2009) surveyed 143 undergraduate music students enrolled in performance or education programs in order to assess factors contributing to career choice.

Undergraduates who had a desire to share music with others, or who believed that they were a strong teacher were more likely to choose a career in music teaching. Prior teaching experiences also have contributed to this desire. Jones and Parkes found that preservice music teachers with stronger music teaching efficacy beliefs were more likely to be committed to a career in teaching than those who were less efficacious about their teaching abilities.

Preservice music teachers made significant gains in music teaching efficacy beliefs after a period of practicum teaching in K-12 schools combined with group discussion and reflection upon teaching strategies (Bergee, 2002). Bergee developed the Preservice Music Teachers' Classroom Management Self-Efficacy Scale after examining previous measures of teaching efficacy beliefs, such as Gibson and Dembo's (1984) instrument. Sixty music education undergraduates were divided into two groups: the experimental group met in small groups to discuss classroom management strategies and behaviors, then rehearsed a group of students and applied classroom management strategies; the control group met in small groups to discuss approaches to classroom management, and then viewed videotaped lessons of experienced teachers utilizing the behaviors they had discussed. The first group made significant gains in classroom management efficacy beliefs, while the control group made smaller gains. In a follow-up test (after the posttest) experimental group scores increased again, while control group decreased, demonstrating a lasting effect when real teaching experience was involved.

Barnes (1998) compared preservice string teachers' music teaching efficacy beliefs with their own ratings of videotaped teaching episodes, and experienced teachers' ratings of the same teaching episodes. Barnes used Gibson and Dembo's (1984) measure of teaching efficacy beliefs, as well as a music teaching observation form to gather data from eighteen preservice string teachers. Preservice teachers' efficacy beliefs scores declined slightly from fall to spring

semesters, while mean scores of both preservice and experienced teachers' ratings of teaching

episodes increased from over the course of the year. Barnes pointed out that although music

teaching efficacy beliefs weakened slightly, preservice teachers increased their overall teaching

effectiveness. Their initial teaching efficacy beliefs may therefore have been inflated, and the

decline was a reflection of more realistic feelings of efficacy beliefs.

Section summary.   Results of studies of preservice teachers in non-music content

areas suggest that teaching efficacy beliefs are content-specific (Bandura, 1977; Charalambous,

Phillipou, & Kyriakides, 2008). Two factors that may play a role in positively shaping preservice

teaching efficacy beliefs are increases in content knowledge (Lin, Gorrell, & Taylor, 2002;

Smolleck & Mongan, 2011; Swackhamer, 2009; Wenner, 1993), and participation in teaching

experiences (Benz, Bradley, Alderman, & Flowers, 1992; Wenner, 2001).

In music education, similarly, research has demonstrated that preservice teachers'

efficacy beliefs are stronger when they have a higher level of content knowledge or interest in a

subject area (Byo, 1999; Jeanneret, 1997). Practice teaching (Auh, 2003; Auh, 2004; Austin &

Miksza, 2012; Thornton & Bergee, 2008), mentoring, and positive feedback (Bergee, 2002;

Chaffin and Manfredo, 2010; Hancock, 2008) may also affect preservice music teachers' music

teaching efficacy beliefs. Little is known, however, about music teaching efficacy beliefs in the

earliest stages of a teacher education program.

Researchers in all areas advocate further investigation of teaching efficacy beliefs,

particularly with preservice teachers (Woolfolk & Hoy, 1990). Additional research is needed in

order to determine how and when teaching efficacy beliefs are established (Charalambous,

Philippou, & Kyriakides, 2008; Hoy, 2000), and the types of experiences that may influence

development or change in efficacy beliefs (Leader-Janssen, 2006; Smolleck & Mongan, 2002; Woolfolk & Hoy, 1990).

Commitment to Teaching

Professional commitment is linked to teacher retention (Billingsley, 1992; Darling-Hammond, 1990), school environment, teaching effectiveness (Karakus & Aslan, 2009), and teaching efficacy beliefs (Coladarci, 1992; Evans & Tribble, 1986; Erwan, 2010). Teachers' commitment may be influenced by amount of teaching experience (Coldarci, 1992), school climate, level of administrative support (Karakus & Aslan, 2009; Riehl & Sipple, 1996), or mentoring (Billingsley, 1992; Erwan, 2010). In particular, many researchers have found a relationship between teaching efficacy beliefs and professional commitment in in-service teachers (Coladarci, 1992; Evans & Tribble, 1986; Erwan, 2010; Tschannen-Moran & Hoy, 2001). More efficacious teachers tend to be more committed to their profession (Coldarci, 1992), and in fact, teaching efficacy beliefs may be a predictor of teachers' career commitment or longevity (Erwan, 2010).

In a survey study of 1,146 teachers in a variety of subject areas, Billingsley (1992) determined that teachers' commitment to remain in the profession was influenced by their perceived institutional support, salary, and stress level. Each of these elements were significant predictors of teachers' professional commitment. Teachers who felt greater support from peers and administrators were more likely to be committed to teaching for their whole career. Billinglsey recommended further research examining the possible connections between teaching commitment and content knowledge, as well as other psychological constructs.

Similarly, Riehl and Sipple (1996) studied data gathered from more than 14,000 teachers by the National Center for Educational Statistics' School and Staffing Survey. Riehl and Sipple

found that teachers' professional commitment was significantly related to their school climate, support from administrators and colleagues, and number of years of teaching experience.

In a study of the possible influence on teachers' professional commitment, Karakus and Aslan (2009) surveyed a group of 1,017 in-service teachers. Results of this study showed the importance of environmental and contextual factors in teachers' professional commitment. Additionally, Karakus and Aslan determined that female teachers were more committed to teaching than male teachers, and that younger teachers (first five years) were more committed than teachers with more experience. Karakus and Aslan suggest a need for more research regarding the underlying psychological influences on commitment to teaching.

Coldarci (1992) surveyed a group of 170 late-career teachers to determine the degree to which their teaching efficacy beliefs influenced their commitment to teaching. More efficacious teachers expressed a greater commitment to teaching, and indicated that, given the chance, they would select teaching as a career again. Similar to Karakus and Aslan (2009), Coldarci found that female teachers were more committed to the profession than male teachers, and suggested the need for more research in the area of possible group differences concerning commitment to teaching.

Erwan (2010) surveyed 322 preservice teachers in order to investigate the relationship between teacher preparation programs, teaching efficacy beliefs, and commitment to the teaching profession. Preservice teachers indicated that their experiences with mentoring and peer feedback had a positive impact on their teaching efficacy beliefs as well as professional commitment. Erwan determined that teaching efficacy beliefs were a significant predictor of professional commitment.

Music teachers' commitment to teaching. Teaching efficacy beliefs may also be related to teacher retention and commitment to music teaching as a profession. Russell (2008) found that music teachers' career plans were impacted by their level of commitment to teaching, as well as teaching efficacy beliefs and overall job enjoyment. Preservice music teachers with stronger teaching efficacy beliefs may also be more committed to a career in teaching than those who are less efficacious (Jones & Parkes, 2009). Additionally, teachers who reported stronger teaching efficacy beliefs in addition to satisfaction with their school environment were less at risk for attrition or migration (Hancock, 2008). Glickman and Tamashiro (1982) studied first and fifth-year teachers, as well as former teachers, and determined that those who had left the profession of teaching demonstrated significantly weaker teaching efficacy beliefs.

Hancock (2008) found that music teachers who spent more time working with students in extracurricular activities were less likely to be at risk for attrition or migration from the profession, and suggested that this type of behavior may be an indicator of a high level of commitment to the profession. Teachers who had higher levels of support from mentors, administrators, and other people within the school community were less likely to be at risk for attrition, a finding that highlights the importance of mentoring.

Investigating vocational identity and commitment to a profession, Allen (2003) surveyed thirty undergraduate music education and music performance majors. Participants completed parallel versions of a measure during their first week of class as freshmen, the last week of their first semester, and last week of their second semester. The same participants also completed Allen's vocational identity measure during the last week of the spring semester in their sophomore and junior years. Music education majors demonstrated a slow gain in identity scores over their freshman and sophomore years, with a larger jump between the end of the sophomore

and junior years. In contrast, performance majors showed a decline in identity scores over their first three years as undergraduates. Allen attributed the rise in music education commitment scores between sophomore and junior years to increased field experiences and music education coursework.

In a case study of fourteen recently withdrawn students, Gavin (2012) examined patterns of withdrawal from degree programs of undergraduate music education majors. Interview and questionnaire data suggested that the majority of students' concerns or negative experiences stemmed from performance expectations or other issues related to their applied studio. Reasons given for withdrawal from the music education program also included erosion of personal musical confidence, and realizations about personal career goals. Negative applied music experiences in more than half of participants affected withdrawal, including studying with graduate assistants as opposed to an applied professor and decreased performance confidence. Personal life difficulties affected the career commitment of fewer participants (death of a significant other, parental divorce. Gavin suggested the need for attention to preservice teachers' musicianship experiences, particularly those that may have an impact on musical performance or teaching confidence.

Corley (2003) studied three learning environments of undergraduate music education majors: applied lessons, ensembles, and non-performance courses. Ninety-five freshman and sophomore music education majors completed the Music Student Inventory, designed to collect data on participants grades, as well as other survey data aimed at uncovering students' perceptions of the various learning environments in which they were involved. Corley did not identify any significant predictors of preservice music teachers' intentions to withdraw from music education programs, however, he did recommend the investigation of other constructs and

experiences affecting preservice music teachers' commitment or tendency for withdrawal.

In a multiple case study focused on preservice music teachers' occupational identity development, Haston and Russell (2012) determined that Authentic Context Learning experiences contributed to an increase in career commitment, as well as a willingness to teach outside of their primary musical area of emphasis. Haston and Russell suggest that teaching experience had a profound impact on preservice music teachers' identity development and commitment to teaching. Students who thrive in an authentic teaching context may strengthen their commitment to music teaching.

Section summary.   Preservice music teachers' commitment to music teaching may be positively affected by real-world teaching experiences (Haston & Russell, 2012), satisfaction with a degree program (Gavin, 2012; Hancock, 2008), and by the development of music teaching efficacy beliefs (Glickman & Tamashiro, 1982; Jones & Parkes, 2009; Russell, 2008). Commitment to teaching likely develops slowly over the course of an undergraduate music education program, and can be adversely affected by negative experiences with performance or studio teachers, among possible other factors (Gavin, 2012).

While several studies have uncovered a relationship between music teaching efficacy beliefs and commitment to teaching (Coladarci, 1992; Evans & Tribble, 1986; Erwan, 2010; Tschannen-Moran & Hoy, 2001), the majority of these studies have been conducted with in-service, and often late-career teachers. Further examination of music teacher commitment is necessary, particularly in the earliest stages of the preservice level. Researchers also advocate the examination of possible relationships between professional commitment and psychological constructs such as music teaching efficacy beliefs (Coldarci, 1992; Corley, 2003; Karakus & Aslan, 2009) at the preservice level.

Music Teacher Education Coursework

Several music education researchers have focused on preservice music teachers' perceptions of various types of course experiences. In a qualitative study of preservice music teachers, Powell (2011) found that participants valued both peer and field teaching experiences. Preservice music teachers reported valuing for the opportunity to practice specific teaching skills, while field teaching afforded opportunities for immersion in an authentic classroom context.

McDowell (2007) asked ten sophomore and junior music education undergraduates to reflect upon field experiences that were a part of their music education and general education coursework. Participants identified a need for more varied field experience (e.g., observation of different types of music classrooms). Preservice music teachers identified writing a music education philosophy, learning about music education advocacy, writing lesson plans and participating in field teaching as the most significant course activities in terms of their preparation for more teaching responsibilities.

In an ethnographic study of improvisation training in a secondary music methods course, Della-Pietra and Campbell (1995) examined the impact of listening, analysis, and small-group improvisations on two students' thoughts and behaviors. As a result of improvisation training, participants demonstrated improvements and an evolving sensitivity to the process of improvisation. This study also demonstrated the importance of preservice training in specific musical roles.

Teachout (2004) found that undergraduate instrumental music education majors valued teaching experience more highly than projects or exam preparation in their junior-level methods course. In contrast, Teachout indicated that music teacher educators tended to place relatively

more value on course projects and exam preparation and less weight on practical teaching experiences than students would have preferred.

Chandler (2012) studied the structure of choral methods courses at NASM-accredited institutions. In a survey of 161 music teacher educators, Chandler determined that most institutions offered a three-credit, one-semester choral methods course, many of which included both on-campus and field teaching components.

In a similar study of instrumental methods course, Hewitt & Koner (2011) found that rehearsal techniques, lesson planning, instrumental pedagogy, and classroom management were among topics receiving the most attention. Class discussions, lesson plan development, and K-12 observations were the most frequently cited assignments or experiences, while world musics, general music methods, arranging, composition, and improvisation received significantly less attention.

Section summary. Music teacher education coursework has a demonstrated effect on preservice music teachers' behaviors and patterns of thought (Della-Pietra & Campbell, 1995). Preservice music teachers value practice teaching experiences (McDowell, 2007; Powell, 2011, Teachout, 2004), as well as other course topics such as philosophy, advocacy, and lesson plan construction (McDowell, 2007).

There is a need for more research in music teacher education in order to ensure that music teacher education curricula are based upon "true needs" of students, rather than simply upon meeting institutional demands (Asmus, 2001). This includes research on specific types of course design (Chandler, 2012; Hewitt & Koner, 2011) course experiences (Hewitt & Koner, 2011; McDowell, 2007), and teaching experiences (Powell, 2011). Although some researchers have studied course structure and content relating to junior-level methods courses (Chandler, 2012;

Hewitt & Koner, 2011; Teachout, 2004), no research has been conducted examining similar

issues at the introductory level.

Chapter III

Method: Strand I (Quantitative)

The present study is a sequential explanatory mixed methods design, organized into two strands. Strand I data collection and analysis techniques were quantitative, while qualitative methodology was employed throughout Strand II. Although qualitative methods serve an explanatory function within this mixed methods design, both paradigms were equally weighted throughout (Creswell & Plano-Clark, 2011).

Mixed methods chapter structure: An explanation. Perhaps the most salient attribute of a sequential explanatory mixed methods design is the connectivity between Strands I and II. The quantitative Strand (I) influences the qualitative Strand (II) in an intermediate stage. No concrete decisions regarding sampling, procedures, or analysis were therefore made prior to the analysis of Strand I data. In order to preserve the integrity of the sequential explanatory design, chapter 3 deals primarily with Strand I methodology, with brief explanations of Strand II procedures. Additional methodological information regarding Strand II sampling, data collection, and analyses procedures is presented in chapter 5. This formatting decision was made for two reasons: a) it is necessary to present preliminary quantitative findings prior to fully explaining qualitative sampling and analyses methods, and b) the presentation order (quantitative data→qualitative sampling & procedures→qualitative data) more authentically represents the sequential explanatory study design.

Rationale for Mixed Methods Approach

Although sometimes considered an emerging form of inquiry, or the "third research paradigm," a mixed methods approach to data collection and analysis has a much longer history than many realize (Johnson & Onwuegbuzie, 2004). As early as the 1970s, anthropological

researchers utilized a variety of qualitative approaches to facilitate the creation of quantitative survey instruments (Pelto & Pelto, 1978). In the years after 1970, multiple journals featured the use of multiple methodologies or dimensions of measurement, with the first mixed methods journal, *Field Methods* being published in 1989 (Schensul, Schensul, & LeCompte, 2013). Since that time, use of both quantitative and qualitative data collection and analysis techniques within a single study has become increasingly popular among ethnographers and social scientists (Burnard, 2006; Ivankova, Creswell, & Stick, 2006; Schensul, Schensul, & LeCompte, 2013).

Mixed methods, by definition, is a procedure for collecting, analyzing, and integrating qualitative and quantitative data at some stage within the research process, for the purpose of gaining a thorough understanding of the research problem (Creswell, 2005; Creswell & Plano-Clark, 2011; Tashakkori & Teddlie, 2003). This approach to research is utilized when neither qualitative nor quantitative methods are, by themselves, sufficient to build an understanding of the complexities of a particular situation. When thoughtfully combined, quantitative and qualitative methods complement one another, and facilitate robust analysis of a research topic (Ivankova, Creswell, & Stick, 2006; Tashakkori & Teddlie, 2003).

A mixed methods approach can bridge a philosophical schism that has traditionally existed between quantitative and qualitative research (Johnson & Onwuegbuzie, 2004), recognizing the ontological perspective that multiple realities exist, and that truth may vary on an individual basis. Mixed methods research facilitates both breadth and depth of study as well as methodological triangulation, increasing validity by allowing for corroboration across multiple forms of data (Greene, et al., 1989; Schensul, Schensul, & LeCompte, 2013)

Methodological and philosophical orientation. Mixed methods research is not the average of quantitative and qualitative methodologies, requiring sacrifice or suspension of rigor.

Mixed methods research is both a blend of methods and a methodological orientation. The integrity of each paradigm can therefore be upheld, even strengthened through integration, provided that the mixed methods research adopts a "best fit" approach to a particular research problem (Creswell, 2011; Guba & Lincoln, 2005). Johnson and Onwuegbuzie (2004) suggest that a pragmatic philosophical orientation is helpful in understanding the potential applications of mixed methods research. That is, researchers approach study design in an open-minded manner, utilizing both qualitative and quantitative elements in a symbiotic combination to best answer particular questions.

The goal of a mixed methods design is not to replace or minimize either paradigm, but rather to draw upon the strengths of both within a single study (Johnson & Onwegbuzie, 2004). A pragmatic philosophical stance is a way to conceptualize the traditional dualism of research methodology, advancing a third methodological paradigm and shedding light on how qualitative and quantitative approaches can be mixed effectively (Hoshmand, 2003). A pragmatic philosophical orientation allows for the use of multiple approaches in answering research questions, rather than being confined by a single methodology. Research methodologies follow research questions in a way that offers the best chance to obtain useful answers (Johnson & Onwegbuzie, 2004). The inclusion of both quantitative and qualitative methodologies allowed for the development of deeper and more nuanced understandings than a single methodology alone.

Mixed methods research in music education.   In music education research, perhaps even more so than other areas, mixed methods research has yet to become as a widely utilized paradigm. The following is an overview of the extent of mixed methods studies in music education.

Hendricks (2009) utilized a concurrent nested semi-integrated mixed method design to investigate the relationships between students' sources of musical self-efficacy beliefs and changes in their competence perceptions during an all-state orchestra event. While comprised of both qualitative and quantitative strands, Hendricks' study was interactive—she collected qualitative and quantitative data simultaneously, and data were combined prior to the final discussion.

Fitzpatrick (2008) employed a two-part triangulation convergence mixed methods design to examine the experiences of urban instrumental music teachers. In three phases, Fitzpatrick collected qualitative data from a focus group, used that data to inform development of a large-scale quantitative questionnaire, and conducted follow-up interviews and observations of selected teachers' teaching. Fitzpatrick's study was also interactive, in that data collected in each phase informed the subsequent phases.

Also using a mixed methods triangulation design, Austin and Berg (2006) explored practice motivation and regulation of sixth-grade band and orchestra students. A validating quantitative data model was used to enhance survey findings (Creswell & Plano Clark, 2007). Quantitative and qualitative data were collected and analyzed separately, followed by an elaboration on quantitative results based on qualitative findings.

Gerrity, Hourigan, and Horton (2013) utilized a sequential explanatory design, similar to the design of the present study, for the purpose of investigating conditions that facilitate learning among music students with special needs. Researchers began with collection and analysis of quantitative data pertaining to students' musical abilities, followed by semistructured interviews to corroborate quantitative results and determine conditions that best facilitated learning.

In a study of middle school music teachers' perceptions of their effectiveness as jazz

educators, West (2013) used an exploratory sequential mixed methods design, somewhat the reverse of a sequential *explanatory* design. West's study included an initial qualitative exploration for the purpose of creating a quantitative instrument to measure the types of experiences that were significant in preparing highly qualified jazz educators. Quantitative data were then collected from 264 teacher participants, and results of the two strands of inquiry were compared in the analysis phase.

Several other music education researchers have utilized less complex mixed methods designs, including concurrent triangulation and concurrent embedded designs, collecting quantitative data in combination with participant journals or open-ended questionnaire items (Berg & Miksza, 2010; Draves, 2008; Draves, 2009). Regardless of design, however, what these studies have in common is a research approach that facilitates both breadth and depth of information in a manner not possible with qualitative or quantitative inquiry alone.

Sequential Explanatory Mixed Methods Design

The sequential explanatory mixed methods design is one of the most widely utilized approaches to mixed methods research (Creswell & Plano-Clark, 2011). With this design, quantitative data are collected and analyzed first, followed by the collection and analysis of qualitative data. In addition, quantitative and qualitative methodologies are weighted within the study. The quantitative strand may receive more weight (QUANT→qual), the qualitative strand may receive more weight (quant→QUAL), or the strands may be equally weighted (QUANT→QUAL) (Creswell & Plano-Clark, 2011). Despite the surface simplicity of this design, there are complexities that must be adhered to in order to properly implement this design (Ivankova, Creswell, & Stick, 2006).

The sequential explanatory mixed methods design is comprised of two strands:

quantitative (Strand I), and qualitative (Strand II). In Strand I, a researcher collects and analyzes quantitative data, and does the same for qualitative data in Strand II. This is considered a *fixed* design—the use of qualitative and quantitative methods is predetermined at the start of the research process—as well as an *interactive* design—the quantitative Strand Influences the qualitative Strand In an intermediate stage, and the two methods are therefore mixed prior to the final interpretation (Creswell & Plano-Clark, 2011). The connectivity of the two strands (interactive element) is a crucial facet of this design. The rationale behind employing this particular design is that quantitative data provide an overview and general understanding of the research topic, while qualitative data and subsequent analysis serves to deepen, extend, refine, and clarify understanding quantitative results (Creswell & Plano-Clark, 2011; Ivankova, Creswell, & Stick, 2006; Tashakkori & Teddlie, 2003) (see Figure 3.01).

Figure 3.01. Sequential explanatory mixed methods design, modified from Creswell and Plano-Clark, 2011.
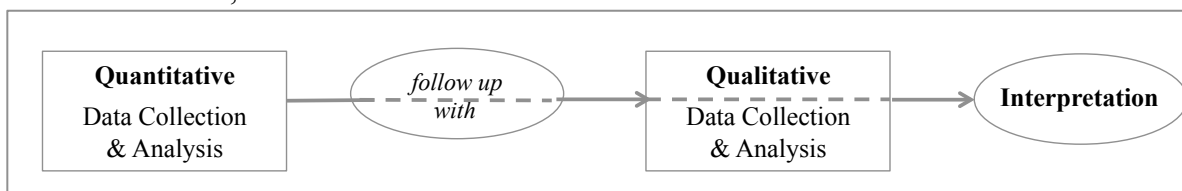
Sequential explanatory mixed methods design: Present study. The present study is a sequential explanatory mixed methods investigation of introductory music education courses. No prior research has focused on introductory music education courses and the students enrolled in such courses. Because little is known about trends or variance in practices surrounding these courses, it is first necessary to gather institutional and course-level descriptive data from course instructors. Data of this type (e.g., structure, timing, and content of introductory music education courses) can be adequately and comprehensively collected through quantitative survey methodology. Through completion of a thoughtfully designed questionnaire, introductory music

education course instructors were able to provide all necessary and relevant data regarding institution location and type, introductory music education course format, timing of offering, basic content, field experience, and students enrolled. This quantitative data provides a frame of reference for introductory music education course practices, and will also play a role in the analysis of student data.

A second quantitative questionnaire, designed for introductory music education students-participants, was also an important part of Strand I. This questionnaire measured music teaching efficacy beliefs and commitment to the profession on a basic level, as well as student demographic data, and extracurricular and/or background teaching experiences. The primary purpose of this second questionnaire was to measure participants' music teaching efficacy beliefs as well as their level of commitment to music teaching. It is important to note that quantitative measures of teaching efficacy beliefs provide only an indication of the strength of an individual's confidence to successfully execute tasks within a particular domain (Bandura, 2006). In order to better understand the experiences that contribute to preservice music teachers' efficacy beliefs and commitment to music teaching, as well as the complex array of ways in which those constructs may be affected by introductory music course experiences, it is necessary to also employ qualitative methodology (Shaughnessy, 2004).

In order to extend, explain, and refine Strand I quantitative findings, a second, qualitative strand was necessary. Strand I quantitative data regarding preservice music teachers' efficacy beliefs, commitment to music teaching, and course experiences informed sampling and protocol design in the qualitative strand (see chapter 5 for detailed sampling and protocol information). Utilizing Strand I findings as a framework and guide, Strand II interviews were focused on understanding the meaning that introductory music education students attributed to various

experiences. Interviews allowed for thorough exploration of the nuances of individual experience in a way that could not be accomplished through quantitative methodology alone. Further, Strand II interviews allowed for exploration and explanation of quantitative trends as well as outliers (see chapter 5 for complete Strand II methodology).

The incorporation of both quantitative and qualitative methodologies facilitated a richer and most robust account of introductory music education students' experiences, including the individual complexities that may impact efficacy beliefs and commitment either positively or negatively. Quantitative methodologies were utilized to provide a breadth of understanding regarding introductory music education course practices, student experiences, and trends in music teaching efficacy beliefs and commitment at the introductory level. Qualitative methodologies were employed to deepen, strengthen, and expand upon Strand I findings. Without both methodologies, or without the interaction between methodologies, the findings and claims resulting from this study would be considerably less strong. This study was therefore constructed using a sequential explanatory mixed methods design.

As stated in chapter 1, the purpose of this study was to gain an understanding of practices characteristic of introductory music teacher education courses including timing (when offered), content, and types of teaching experiences. Moreover, I sought to investigate the music teaching efficacy beliefs and commitment to teaching of preservice music teachers when enrolled an introductory music education course. Finally, the impact of introductory music education course experiences on preservice music teachers' music teaching efficacy beliefs and commitment to teaching was explored.

Research questions framing this study were divided into three categories: quantitative (Strand I), qualitative (Strand II), and mixed methods. Strand I research questions dealt with the

status of introductory music education courses, as well as the status of introductory music education students' music teaching efficacy beliefs and commitment to music teaching. Further, Strand I research questions explored possible relationships or differences among music teaching efficacy beliefs, commitment to music teaching, and various introductory music education course components. Strand II research questions were focused on the meaning of introductory music education students' course experiences, as well as the types or characteristics of experiences that they may perceive as impacting their music teaching efficacy beliefs or commitment to music teaching. The mixed methods research question was focused on the extent to which quantitative and qualitative data were in alignment.

Study Design

As indicated above, a sequential explanatory mixed methods approach involves both quantitative and qualitative data collection and analysis, organized into two strands. Within the context of this study, both quantitative and qualitative paradigms are equally weighted. While qualitative data served as an explanation of quantitative data, both types of data were taken equally into account within the final analysis (Creswell & Plano-Clark, 2011).

Strand I.   Strand I data collection occurred through the administration of two questionnaires: the Introductory Music Education Course Data (IMECD) questionnaire, and the Preservice Music Teacher Efficacy Scale (PMTES). The IMECD was completed online by introductory music education course instructors, and the PMTES was completed in paper form by students enrolled in introductory music education courses.

The goals of Strand I were to a) collect and analyze data from music teacher educators regarding introductory music education course offerings, including content, amount and type of teaching and field experiences, number of credit hours, and year/semester of offerings, and b)

collect and analyze data from preservice music teachers enrolled in introductory music education courses regarding their music teaching efficacy beliefs and commitment to music teaching as a career.

      Strand II.   Following preliminary quantitative data analysis, Strand II consisted of semi-structured qualitative interviews with 24 participants (Bernard, 1988). Qualitative interviewees were selected based upon a) indicated willingness to participate in a follow-up interview, and b) major outcome variables that emerged from Strand I.

      The goals of Strand II were to a) explore and explain Strand I results through semi-structured interviews with a variety of participants, b) explore quantitative trends and outliers, uncovering possible relationships or important meanings attributed to various introductory music education course experiences. For a detailed account of all Strand II procedures, including sampling, interview protocol design, and analysis, please see chapter 5.

Sampling & Population

      Strand I.   In purposive sampling, a researcher intentionally selects participants in order to develop an understanding of a central phenomenon (Creswell, 2005). The criterion for selecting participants or research sites, therefore, is whether they are "information rich" (Patton, 1990, p. 169). No prior research has been conducted specifically on the status of introductory music education classes, or the experiences and efficacy beliefs of students enrolled in those classes. As such, it was necessary to identify an information rich research population. For the purpose of this study, information rich instructor participants were those who had demonstrated professional investment in music teacher education, and who had an understanding of both mainstream practices and newer trends in music teacher education.

      The targeted population for this study was therefore past attendees of the Society for

Music Teacher Education (SMTE) symposia. This organization has held five biennial symposia since 2005. The primary mission of the SMTE is to "improve the quality of teaching and research in music teacher education" (smte.us). Participation in this organization therefore signifies an investment in music teacher education research and practice, and SMTE symposium attendees were considered to be a knowledgeable and information rich research population.

This sampling procedure also satisfied a need for feasibility in the present study. Creating a national sample of all music teacher educators would be time and resource-intensive, yet not necessarily beneficial, as not all institutions of higher education offer introductory music education courses.

From the overall population of SMTE attendees (303 music teacher educators), 115 institutions were represented. Of those, eleven do not offer an introductory music education course, and ten offer a course or seminar during a semester or quarter that did not coincide with fall 2012 data collection. Ninety institutions therefore fit the description necessary for participation in this study. During the semester prior to data collection, introductory music education course instructors at all 90 institutions were contacted via email and asked whether they and their students would be willing and able to participate in this study. Several instructors declined to participate due to a) lack of class time, or b) although their introductory music education course is offered during the fall semester, it is offered every other year, and fall 2012 was not a semester of offering. For these reasons, the target research population for the current study consists of introductory music education course faculty and students affiliated with 61 higher education institutions (61 course instructors, 1,108 introductory music education students). Following approval for data collection by the Institutional Review Board Human Research Committee (IRB/HRC), these 61 course instructors were invited to participate in the

study. The volunteer research sample for Strand I was comprised of 42 course instructors—a 69% response rate—and 684 students—a 62% response rate. This resulted in a student sampling error of ±2.32% and an instructor sampling error of ±8.5%.

    Strand II.   Participants for Strand II interviews were selected using a nested stratified purposive sampling technique (Maxwell, 1997; Onwegbuzie & Collins, 2007; Tashakkori & Teddlie, 2003; Teddlie & Yu, 2007). That is, the Strand II sample was *nested* within the Strand I sample—interview participants represented a subset of the larger quantitative sample (Onwegbuzie & Collins, 2007). Participants were divided into *strata*, or groups, based upon major outcome variables determined based upon Strand I analysis. Finally, the Strand II sample was *purposive*, in that participants were selected in equal numbers from each strata based upon the criteria they represented (Maxwell, 1997). Fully detailed information regarding Strand II sampling is presented in chapter 5.

Measurement of Efficacy Beliefs

    Efficacy beliefs are not global, but are instead a set of beliefs linked to distinct realms of functioning. Bandura (2006) states that there is no "one measure fits all" approach to measuring efficacy beliefs (p. 307). Efficacy beliefs are a judgment of personal capability, while outcome expectancies are judgments about consequences that are likely to occur as a result of particular actions. Outcome expectancies can be measured along with efficacy beliefs, however, the two should not be treated as interchangeable (Bandura, 2006).

    Studies of efficacy beliefs, Bandura suggests, must be appropriately tailored to a domain that is the desired area of interest. The issue of content validity is an important topic when considering the measurement of efficacy beliefs. Because efficacy beliefs are concerning a self-perceived capability, items should be phrased in terms of what a person *can do* (Bandura, 2006).

It is also crucial to eliminate judgments of self-worth and locus of control when attempting to measure efficacy beliefs.

Instruments

Both instruments to be used for preservice data collection in Strand I are researcher-created questionnaires. The online Introductory Music Education Course Data (IMECD) questionnaire, to be distributed to university music education faculty, was developed from prior research in course structure and content (Chandler, 2012; Hewitt & Koner, 2011), as well as a content analysis of topics included in textbooks written for introductory music education courses. The Preservice Music Teacher Efficacy Scale (PMTES) questionnaire, completed by preservice teacher participants, was developed from prior measures of teaching efficacy beliefs including Gibson and Dembo's (1984) Teacher Efficacy Scale, Woolfolk-Hoy's (2000) Preservice Teaching Confidence Scale, Bandura's (2006) Teacher Self-Efficacy beliefs Scale, and Austin and Miksza's (2011) adaptation of Tschannen-Moran and Woolfolk-Hoy's (2001) Teachers' Sense of Efficacy beliefs Scale (TSES).

Adaptations to the above measures of teaching efficacy beliefs were based upon prior research. For example, all teaching efficacy beliefs items (regardless of Gibson and Dembo's original loadings of 'personal' and 'teaching' efficacy beliefs) are positively worded (Guskey & Passaro, 1994). A series of items were added in order to test the notion that preservice teachers' classroom management efficacy beliefs may differ somewhat from their teaching efficacy beliefs (Charalambous, Phillipou, & Kyriakides, 2008; Soodak & Podell, 1996; Tschannen-Moran & Woolfolk-Hoy, 2001). Finally, attention was given to the claim that prior measures of in-service teaching efficacy beliefs (e.g., Gibson & Dembo, 1984; Tschannen-Moran & Woolfolk-Hoy, 2001; Woolfolk-Hoy, 2000) may not be appropriate for measuring preservice teachers' efficacy

beliefs. As such, several items were eliminated from the PMTES, based upon consultation with several teacher educators and cooperating teachers, as well as based upon results of pilot testing. Wording was altered to reflect preservice status, and items dealing with parents or school community issues were eliminated (Woolfolk-Hoy, 2000) Table 3.01 includes sample items from each of the sub-categories of music teaching efficacy beliefs.

Table 3.01. Sample items from each sub-category of music teaching efficacy beliefs

Sub-Category	Sample Item
General music teaching efficacy beliefs	*When students' performance improves, it is most often due to their teacher having found a more effective teaching approach*
Personal music teaching efficacy beliefs	*I am confident in my ability to implement new approaches to teaching music*
Instructional practice efficacy beliefs	*I can develop a rubric to assess students' musical performance*
Classroom management efficacy beliefs	*I can convey clear expectations about student behavior*

Items measuring preservice music teachers' commitment to teaching were developed based upon prior research on professional commitment. With a population of preservice or early-career teachers, commitment is typically measured through a series of statements related to an individual's desire to maintain "membership" in the teaching profession (Caprara et al., 2006; Coladarci, 1992; Erwan, 2010; Ware & Kitsantas, 2007) or how long they plan to remain in the teaching profession (Billingsley, 1992). Teaching commitment items included in the PMTES were adapted from Caprara et al. (2006) and Ware and Kitsantas (2007) in order to reflect commitment specifically to the music teaching profession. Table 3.02 includes example items from the commitment to music teaching section of the PMTES.

Table 3.02. Sample items measuring commitment to music teaching

Item Type	Sample Item
Positively-worded	*I would be happy to spend my whole career teaching music*
Negatively-worded*	*I am not sure that I want to be a music teacher*

*reverse coded for analysis

Pilot Testing

In quantitative survey research, the primary purposes of pilot testing are to a) maximize content validity, b) ensure that all items and overall questionnaire format are readily understandable, and c) to determine whether the time and effort required by participants is reasonable. Questionnaires should be pilot tested with a group of individuals similar to the research population (Drew, Hardman, & Hosp, 2008).

Introductory Music Education Course Data Questionnaire (IMECD).

The IMECD was pilot tested between November 5 and November 9, 2012, by eight teacher educators from the University of Colorado, Boulder, and Colorado State University. Mean completion time for the IMECD was eight minutes, fifty-four seconds (8:54). In response to comments from several pilot participants, column spacing was altered slightly in order to increase ease of completion in the online format. Based on a suggestion from a pilot participant, individualized SurveyMonkey (www.surveymonkey.com) links were created for the purpose of tracking responses throughout the data collection process, as well as for the purpose of linking instructor and student responses during Strand I data analysis.

Preservice Music Teacher Efficacy Scale (PMTES). The PMTES was pilot tested on November 7, 2012 with a group of 22 preservice music teachers enrolled in an introductory music education course at the University of Colorado, Boulder. The pilot sample composition is displayed in Tables 3.03 and 3.04.

Table 3.03. Gender breakdown of PMTES pilot sample

Gender	Number of Participants
Male	9
Female	13

Table 3.04. Major instrument breakdown of PMTES pilot sample

Major Instrument	Number of Participants
Woodwind	6
Brass	5
Percussion	2
String	4
Voice	4
Piano	1

Beyond completing the PMTES, students were asked to provide feedback regarding specific items or overall measure format. Pilot participants reported some confusion with negatively worded efficacy beliefs items in Section I of the PMTES. Item-total correlations revealed that five of the six negatively worded items were problematic ($\alpha = .63$ with negatively worded items; $\alpha = .89$ with negatively worded items removed). The sixth negatively worded item was not statistically problematic. Based on this analysis, as well as pilot participants' feedback, the five problematic items were re-worded on the final version of the PMTES. Based on pilot test data analysis, and because self-report questionnaires are susceptible to response bias (participants have a tendency to agree with all statements in order to appear polite or portray themselves positively), one negatively-worded item was retained in sections I and III (Byrne, 1996; Paulhus, 1991).

Mean completion time for the PMTES was six minutes, thirty-two seconds (6:32). No

major formatting challenges were reported during pilot testing. There was one request for a "neutral" or middle option on the 6-point Likert scale agreement scales. The decision was made not to take this suggestion, however, as a neutral rating may encourage "satisficing," or lack of genuine response (Krosnick et al., 2002). A copy of the final PMTES can be found in Appendix B.

Procedures

Pre data collection. Prior to the beginning of the fall semester, initial measures were taken to identify a purposive sample of institutions that would be invited to participate in Strand I. Between June 25 and August 1, 2012, a database was compiled, consisting of all past attendees of the Society for Music Teacher Education symposia. These individuals were cataloged by institution, and one individual from each of the 115 institutions was contacted. Sixty-one respondents were then placed into a database for invitation to participate based upon a) their institution's offering of an introductory music education course, b) the offering of an introductory music education course during the fall semester 2012, and c) willingness for their and their students' participation.

Due to the sensitive timing of data collection in the last two weeks of the fall semester 2012, and with the approval of the dissertation committee, Strand I questionnaires were pilot tested, and Institutional Review Board Human Research Committee (IRB/HRC) paperwork was submitted prior to the proposal defense. IRB/HRC paperwork, including a draft of each questionnaire, was submitted on November 7, 2012, and approved for exempt status on November 9, 2012. All IRB/HRC approval letters can be found in Appendix C. Pilot testing of both the student and course instructor questionnaire took place between November 5 and November 9, 2012. Pilot test data were analyzed between November 9 and November 14, 2012.

Strand I: Data collection.   Following the proposal defense and committee approval (November 14, 2012), all sixty-one previously contacted course instructors were sent a formal invitation email. Due to the Thanksgiving holiday, the data collection window began on Monday, November 26, 2012 and continued through Friday, December 14, 2012 (3-week window). The email invitation sent to course instructors asked for a) their participation in the study through completion of the IMECD, and b) their introductory music education course students' participation in the study through completion of the PMTES.

The IMECD (course instructor questionnaire) was created online using SurveyMonkey. The full IMECD can be found in Appendix D. Individualized hyperlinks were created an embedded within each course instructor's invitation email. This facilitated a) tracking of IMECD completion throughout the data collection window, and b) personalization of all invitations and subsequent communication.

In attempt to facilitate ease of PMTES questionnaire administration, each course instructor was given two options for the PMTES.

1. Receive all required hard copies (based on their indicated number of students enrolled in the introductory music education course) of the PMTES, informed consent forms, and questionnaire script to be read by the course instructor prior to student participation.

2. Receive the PMTES, informed consent form, and questionnaire script via email attachment (.pdf), at which point an appropriate number of copies could be made.

Regardless of the option selected by each course instructor, every institution received return postage paid envelopes as well as a hard copy of a letter thanking them for their participation. Twenty-six course instructors elected to receive electronic copies (.pdf) of all PMTES materials, and sixteen requested hard copies. Informed consent forms for both course

instructors and undergraduate students can be found in Appendix E, the instructor invitation letter can be found in Appendix F, and administration instructions, as well as the PMTES questionnaire script can be found in Appendix G.

The distribution of questionnaires and other materials occurred during the last week of November, 2012. In effort to maximize response rates, all communication with course instructors was individualized, using their name and the name of their institution. Course instructors received a second, reminder email one week after the initial invitation was sent. Individualized SurveyMonkey links were monitored, and course instructors who had not yet completed the IMECD were contacted a third time prior to the end of the data collection window.

Strand I: Receipt and entry of data. During the last two weeks of December 2012, and the first two weeks of January 2013, two data files were created using the Statistical Package for Social Sciences (SPSS, Version 21.0.0.0 for Mac OS X, 2012). As student questionnaires were returned by mail, they were numbered by school code (1-41) and participant number (1-684). The IMECD data file consisted of 68 variables, and the PMTES data file included 77 variables. Some instructor responses, including field experience hours, inclusion and number of peer teaching episodes, and institution type (public or private) were entered into the student data file.

Strand I: Data analysis. During the months of January and February 2013, Strand I data were analyzed. Throughout data entry and the early stages of analysis, frequency counts were examined to ensure that keypunching errors were identified and corrected, and that missing data were appropriately represented. Responses for negatively worded items on the PMTES were reversed using the recoding function in SPSS.

Introductory Music Education Course Data (IMECD). Analysis of IMECD data was primarily descriptive. Descriptive statistics, including frequencies and percentages were produced for a) institutional and instructor data, b) data related to course practices, topics, and activities, and c) field experience.

Preservice Music Teacher Efficacy Scale (PMTES). PMTES data were considerably more nuanced than IMECD data—the PMTES included multiple sections pertaining to psychological constructs, including music teaching efficacy beliefs and commitment. Descriptive data, including frequencies and percentages were first produced for student characteristics. Next, principal components analyses were performed in order to clarify the underlying dimensions of music teaching efficacy. Principal components analysis is a type of dimension reduction, the goal of which is to explain the total variance of a variable or variables. Principal components analysis can be utilized, as in this case, to reveal the underlying or internal structure of data. Principal components are latent variables or facets of a larger variable, and "arise from" measured variables (Meyers, Gamst, & Guarino, 2013). Principal components analysis was performed on sections 1 and 3 of PMTES data to uncover possible latent variables, as well as to establish construct validity and eliminate items that were not sufficiently measuring identified constructs.

Results of principal components analyses were utilized to calculate descriptive statistics and reliability estimates for each valid subscale. Group and institutional differences in music teaching efficacy beliefs and commitment were then explored, first by institution type (public/private) and size, as well as for student-level variables. Finally, correlational analyses were performed among major outcome variables and various course components. Because of the large number of student participants ($N = 684$), an alpha level of .01 was established for all

analyses.

Strand II: Data collection and analysis.   Prior to beginning Strand II interviews, an amendment was submitted to the Institutional Review Board, indicating the number of participants (25), informed consent procedures, and basic interview protocol for Strand II. This amendment was approved on March 6, 2013, and Strand II interviews took place between March 11 and March 29, 2013. Quantitative survey data informed the selection of Strand II participants, as well as the development of qualitative interview questions (more specific procedures presented in chapter 5).

Qualitative interviews were analyzed using an a priori list of codes, generated from Strand I data analysis. In instances where a priori codes were not an immediate fit, low level descriptive coding (Saldaña, 2009) was utilized, followed by pattern (Miles & Huberman, 1994) and thematic coding (Saldaña, 2009) (more specific procedures presented in chapter 5).

Chapter IV

Quantitative Results

Data obtained from 42 music teacher educators and 684 undergraduate music education students were analyzed using the Statistical Package for Social Sciences (SPSS, Version 21.0.0.0 for Mac OS X, 2012). In addition to descriptive analysis, primary components analysis was used to examine the underlying conceptual dimensions of music teaching efficacy beliefs and commitment. Group differences in teaching efficacy beliefs related to field experience and other course components were examined via t tests and one-way analyses of variance (ANOVA). Correlational analyses were used to explore the relationship between introductory music education course components, music teaching efficacy beliefs, and commitment to music teaching. Because of the large sample size, an alpha level of .01 was established as the statistical significance threshold for all correlational and group comparison analyses.

Descriptive analyses are organized first by questionnaire—Introductory Music Education Course Data measure (IMECD), followed the Preservice Music Teacher Efficacy Scale (PMTES)—and then according to major sections within each questionnaire. With respect to the IMECD, findings related to institutional and instructor characteristics are presented first, followed by trends in course practices.

In the report of PMTES data, student characteristics are presented first, followed by reliability analyses for sections corresponding to music teaching efficacy beliefs and commitment to music teaching. Principal components analyses are presented next, clarifying the underlying dimensions of major outcome variables. The next section contains descriptive data concerning major outcome variables, followed by an examination of institutional differences with each outcome variable. Finally, group differences (based on a variety of course

components) and correlational analyses among major variables and course components are displayed.

Introductory Music Education Course Data (IMECD)

A total of 42 (83.3% public, 16% private) course instructors completed the IMECD. Sixty-one music education faculty members were invited to participate, resulting in a 69% response rate and a sampling error of ±8.5%. Because instructors were primarily reporting institutional or course-related data, and because most of their responses involved selection-type items rather than proportional or continuum-type responses, the sampling error rate was not considered a major threat to subsequent analyses.

To investigate whether the participating institutions ($N = 41$) were representative of the population (61 institutions) in terms of NASM classification of institution size or public/private status, chi-square statistics were computed. The proportion of public versus private institutions represented by the accessible population and responding sample of instructors and students were not significantly different ($\chi^2 = 1.34$, $p = .247$). Similarly, relatively equal proportions of small (400 students or fewer) and large institutions (401 students or more) institutions were found in the accessible population and respondent sample ($\chi^2 = .005$, $p = .942$). The 41 participating institutions could therefore be considered to be a representative sample, and instructor response rate and sampling error were not a concern for data analysis and interpretation.

Most schools offer Bachelor's, Master's, and Doctoral degrees in music education (54.8%), with 35.7% reporting Bachelor's and Master's degrees, and 9.5% offering Bachelor's only. Course instructors reported a mean of 14.03 years of K-12 teaching experience (range: 3-31 years, and 11.91 years of university teaching experience (range: 1-35), having taught the introductory course 6.58 times on average. Instructors' primary area of emphasis was varied—

38.1% band, 21.4% general music, 19% "other" (including jazz, technology, and research),

14.3% choir, and 7.1% orchestra.

Course data.   While a small number of participating institutions offer an introductory

course in the junior year, the vast majority (94.9%) offer the course in either the freshman or

sophomore year, with freshman year offerings outnumbering sophomore offerings nearly two to

one. The majority of institutions offered introductory level courses during the fall semester of the

freshman year. Table 4.01 displays participant (course instructors) responses regarding when

introductory music education course are offered.

Table 4.01. Introductory music education course offerings: semester and year
($n = 40$)

		Frequency	**Percent**
Year Enrolled	Freshman	26	61.9%
	Sophomore	14	33.3%
	Junior	2	4.8%
Semester or Quarter	Fall only	28	70%
Offered*	Both Fall & Spring	12	30%

**Note: as data collection occurred during the fall semester, institutions that offer
introductory level courses during the spring semester only were not included in this
study.*

Instructors reported mean enrollment of 28.1 students (min = 5; max = 88). Students earn

an average of 2.1 semester credits for completion of this type of course, with a minimum of zero

credits, and a maximum of four. Instructors reported a mean of 2.1 class meetings per week, for a

mean class length of 57.7 minutes (min = 50 minutes; max = 120 minutes). These results imply

that the typical introductory music education course meets twice per week for approximately one

hour, with students earning two credits.

When asked to describe the basic format of their course, the majority of instructors

indicated a seminar-type course (78.6%), including a mixture of lecture and class discussion. The

next most common course format was an on/off campus hybrid, where some meetings are on

campus, and others in K-12 schools (14.3%). Fewer instructors reported a lecture-only format (4.8%).

Course components. The majority of instructors (86%) reported incorporating field experience into their introductory level course, with the most common activity being observation in multiple K-12 classrooms. Instructors reported a mean of 8.5 hours of total experience, with 1.3 hours spent teaching, and 7.5 hours spent observing on average. Table 4.02 displays data related to type of field experiences offered.

Table 4.02. Type and frequency of field experience offerings ($N = 42$)

	Frequency	Percentage
Field experience offered?		
Yes	36	85.7%
No	6	14.3%
Type of Field Experience*		
K-12 Observation at multiple schools	24	57.1%
K-12 Observation at one school	10	23.8%
K-12 Teaching at one school	4	9.5%
K-12 Teaching at multiple schools	2	4.8%

Note: percentages add up to 85.7%, as this is the percentage of institutions reporting including field experience at the introductory level.

The most common type of field experience reported was observation in multiple K-12 classrooms. Fewer schools include K-12 observation at a single school site, and the smallest percentage of institutions (14.3%) includes a K-12 teaching experience at the introductory level.

In addition to field experience information, instructors were asked whether or not their course included peer teaching (defined as students planning and teaching a lesson to a group of peers). The majority of instructors (83.3%) reported the inclusion of peer teaching in their introductory course, with a mean of 1.43 (min = 0, max = 7) peer teaching episodes, at 8.94 minutes apiece (min = 2 minutes, max = 30 minutes).

Slightly less than one half of instructors reported using a textbook in their class (47.6%).

Instructors using a textbook were asked to indicate the text title in an open-ended questionnaire

item. Table 4.03 displays textbook titles, authors, and frequency of use.

Table 4.03. Introductory music education course textbooks and frequency of reported use
(*n* = 20)

Textbook Title	Textbook Author	Publication Information	Schools Using	
Music Education In Your Hands: An Introduction for Future Teachers	Mark, M. & Madura, P.	Routledge, 2009	5	25%
Introduction to Music Education	Hoffer, C.	3rd edition 2009, Waveland Press	4	20%
Prelude to Music Education	Erwin, J., Edwards, K., & Kerchner, J.	2002, Pearson	3	15%
Musician and Teacher: An Orientation to Music Education	Campbell, P. S., Demorest, S. M., & Morrison, S. J.	2007, W. W. Norton	2	10%
Contemporary Music Education	Mark, M. & Gary, C.	3rd edition 1996, Schirmer	1	5%
Constructing a Personal Orientation Toward Music Teaching	Campbell, M. R., Thompson, L. K., & Barrett, J. R.	2010, Routledge	1	5%
Intelligent Music Teaching: Essays on the Core Principles of Effective Instruction	Duke, R.	2009, Learning & Behavior Resources	1	5%
Teaching Music in American Society: A Social and Cultural Understanding of Music Education	Kelly, S. N.	2008, Routledge	1	5%
From Student to Teacher [not yet unpublished]	Teachout, D. & Raiber, M.	n/a	1	5%
Majoring in Music: All the Stuff You Need to Know	Holly, R.	2009, Meredith Music	1	5%

When asked to indicate the amount of weight carried by various course topics, instructors

reported music teacher identity development, teacher-student relationships, philosophy, lesson

planning, and professional organizations as the top-weighted areas of instructional emphasis. In

an open-ended item, instructors noted that other purposes of this course include "turning students

on" to music teaching, and "motivating and priming" students for the next few years of the

degree program. Instructors also listed working with special learners, teaching strategies, and

professionalism/ethics as emphasized topics. Table 4.04 displays the full list of course topics.

Table 4.04. Instructor-reported emphasis on introductory course topics* and frequencies for open-ended items**

Course Topic	Mean Emphasis	Range
Music teacher identity development	4.35	1-6
Teacher-student relationships	4.21	1-6
Philosophy	4.14	1-6
Lesson planning	4.00	1-6
Professional organizations	3.90	2-6
Child development/learning psychology	3.55	1-6
Classroom management	3.38	1-5
Assessment	3.26	1-6
Technology	3.02	1-6
Discipline-specific topics (e.g., band, orchestra, choir)	3.02	1-5
Research	2.88	1-5
Specific methodologies (e.g., Orff, Kodaly, Suzuki)	2.83	1-5
History of music education	2.81	1-6
World musics	2.21	1-5
Conducting	1.40	1-4
Open-ended Items	**Number of times reported****	
Working with special learners	6	
Teaching strategies	5	
Professionalism/ethics	4	
Classroom observation strategies	3	
Creativity (including improvisation, composition, and nontraditional music classes)	3	
National or state standards	2	
Advocacy	1	
Comprehensive musicianship	1	

Note: 1=not addressed, 2=very little emphasis, 3=little emphasis, 4=some emphasis, 5=considerable emphasis, 6=heavy emphasis
**Open-ended item coded according to instructor response. Frequency indicates number of instructors (institutions) that reported placing emphasis on each additional topic area.*

From this data, it is clear that the introductory course curriculum is most often a survey-

type design, wherein emphasis is split between many relevant subject areas. It should also be

noted that while course topics included in the questionnaire were taken from introductory course texts, instructors reported several other areas of focus.

Student Data: Preservice Music Teacher Efficacy Scale (PMTES)

A total of 684 introductory music education students from 41 institutions completed the PMTES. One thousand, one hundred eight students were invited to participate, resulting in a 61.73% response rate, and a sampling error of ±2.32%. Student participants were 50.9% female (n = 348) and 48.4% male (n = 331). The majority of participants were freshman or sophomore (84%) music education majors (85%). A wide variety of primary instruments were represented. Figures 4.01-4.03 display additional student data.

Figure 4.01. Student self-reported major
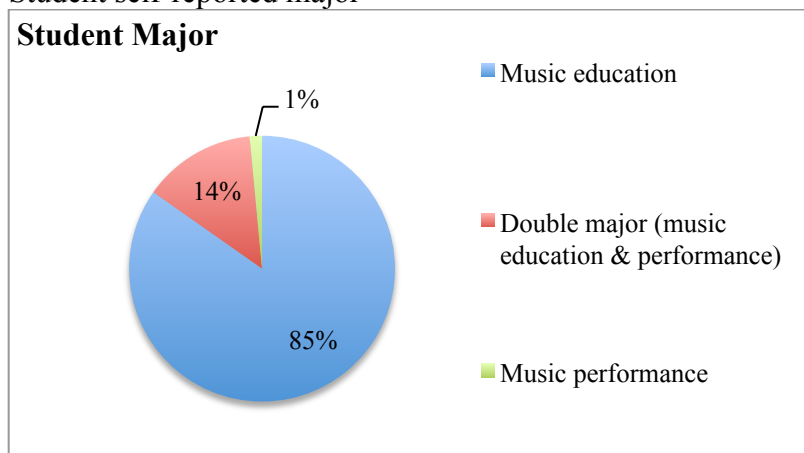
Figure 4.02. Student self-reported year in undergraduate degree program

Year in Undergraduate Program
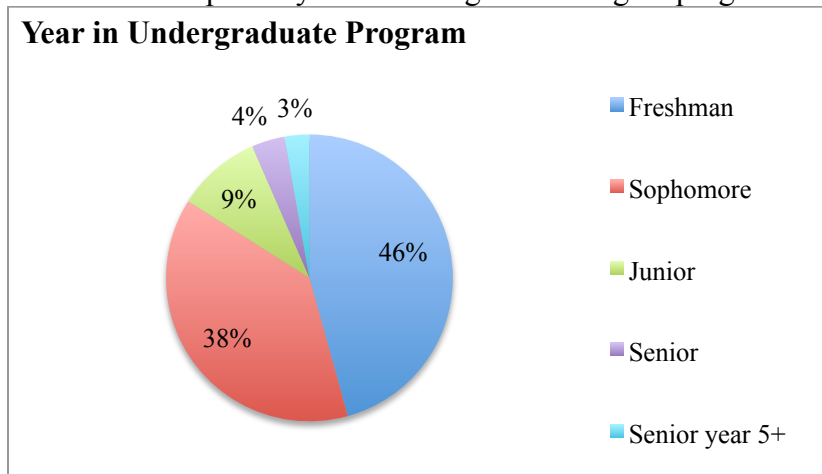
Figure 4.03. Student self-reported primary instrument

Primary Instrument
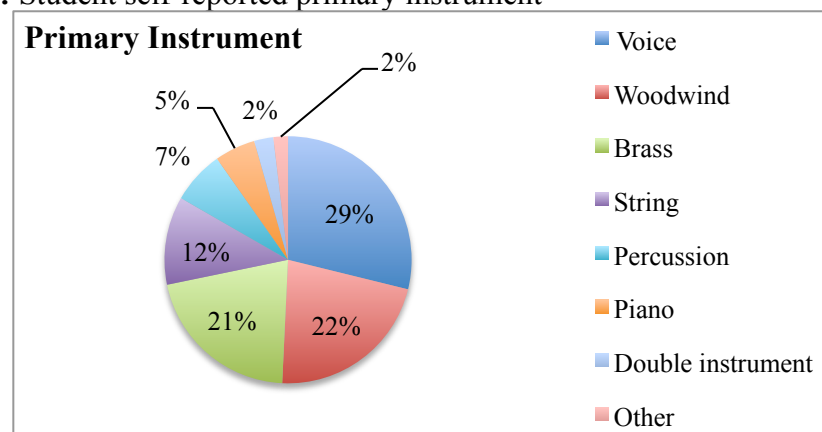
Student outcomes. Items in section I of the PMTES measured music teaching efficacy beliefs. Reliability was estimated at α = .905 for all Section I items with item 12 (a negatively worded item with a weak item-total correlation) omitted. Music teaching efficacy beliefs were further split into two components: personal music teaching efficacy beliefs (PMTE) (α = .930), and classroom management efficacy beliefs (CME) (α = .909).

PMTES: Construct Validity Analysis for Music Teaching Efficacy Beliefs (Section I)

Principal components analysis is an exploratory, data reduction technique used to identify a smaller number of dimensions or components underlying a relatively large set of variables

(Myers, Gamst & Guarino, 2006). A component is a weighted linear combination of variables (variate). Each variable's weight is based on its contribution to or relationship with a given component. For principal components analysis, it is recommended that the number of cases exceed 200 and that there is a 10:1 ratio of cases to variables. The number of cases (684) in this study and the ratios for music teaching efficacy beliefs (33:1) and commitment to music teaching (76:1) were more than adequate. There are two main phases involved with principal components analysis: an extraction phase during which the maximum variance underlying all of the variables in the analysis is accounted for, and a rotation phase during which the components are pivoted around their point of intersection until the interpretation of the analysis is optimized. A particular rotation method, *promax*, is recommended for use with large data sets when components are likely to be correlated.

In exploring participant responses to the 21 music teaching efficacy beliefs items from Section I of the PMTES, principal components analysis with promax rotation revealed two efficacy beliefs components: Personal Music Teaching Efficacy beliefs (PMTE) and Classroom Management Efficacy beliefs (CME). Cronbach's alpha was calculated for each component, and reliability estimates were very strong: (PMTE, $\alpha = .930$; CME, $\alpha = .909$). These components accounted for 50.34% of the total variance in efficacy beliefs scores. A strong relationship emerged ($r = .70$) between PMTE and CME components, which implies that PMTE and CME represent related, yet reasonably distinct facets of music teaching efficacy beliefs. Due to the correlation between PMTE and CME components ($r = .70$, as well as the strong reliability estimate for all music teaching efficacy items ($\alpha = .905$), PMTE and CME were combined for the purpose of some group difference analyses. In analyses where PMTE and CME were treated

separately, they will be referred to as such, however "music teaching efficacy beliefs" refers to

the composite (PMTE + CME).

Table 4.05 includes items from section I of the PMTES, as well as component loadings

for PMTE and CME (loadings below .30 are suppressed).

Table 4.05. PMTES items comprising personal music teaching efficacy beliefs and classroom management efficacy beliefs components

Component	Item	Component Loading
Personal music teaching efficacy beliefs (PMTE)	*I am continually learning better approaches to teaching music*	.705
	I can create effective lessons for music classes	.696
	I have enough knowledge to effectively teach basic musical concepts	.688
	I have the necessary skills to teach music	.687
	My effort has an impact on students' music achievement	.684
	I am confident in my ability to seek out new strategies for teaching musical concepts	.668
	I am typically able to answer students' music questions	.657
	I can create lesson plans using State or National Standards	.639
	My teaching approach allows students to quickly master new musical concepts	.637
	I can evaluate students' musical knowledge	.614
	I can locate resources for preparing music lessons	.563
Classroom management efficacy beliefs (CME)	*I am confident that my classroom management abilities will continue to improve*	.681
	I can convey clear expectations about music student behavior	.638
	I can control disruptive behavior in the music classroom	.618
	I can get music students to follow classroom rules	.613
	I can respond effectively to defiant or challenging students	.550
	I can calm a student who is disruptive or noisy	.517
	I can keep a few problem students from ruining an entire lesson	.467

PMTES: Construct Validity Analysis for Commitment (Section III)

A principal components analysis (with promax rotation) of participant responses to music

teaching commitment items from section III of the PMTES revealed that all commitment items

loaded in a single component. This single component accounted for 73.31% of the total variance

in commitment scores. Table 4.06 includes items from section III of the PMTES, as well as

component loadings for commitment to music teaching. As previously indicated, reliability

estimates for commitment were strong (α = .948).

Table 4.06.   PMTES items comprising commitment to music teaching component

Component	Item	Component Loading
Commitment to music teaching	*I want to be a music teacher*	.919
	I am committed to becoming a music teacher	.913
	Teaching music will be a satisfying career for me	.896
	I am not sure that I want to be a music teacher	.857
	I can see myself teaching music 5 years from now	.845
	I would be happy to spend my whole career teaching music	.815
	I am proud to tell others that I am studying to become a music teacher	.813
	I am proud to be a part of the music education profession	.797
	Teaching music is important to me even though my salary could be higher in a different career	.789

Items in section II of the PMTES measured general teaching efficacy beliefs, or a global

belief of what music teachers in general are capable. Responses in this section yielded a

relatively low reliability estimate (α = .424), and were therefore omitted subsequent analyses.

Descriptive data for reliable PMTES outcome variables, with general teaching efficacy beliefs

omitted are displayed in Table 4.07.

Table 4.07. Means and standard deviations for reliable PMTES variables

Variable	Total # of Items Measuring Variable	Mean	Standard Deviation	Range
Music teaching efficacy beliefs (Composite)	21	88.12	12.22	36-114
PMTE	*14*	*64.12*	*8.31*	*29-84*
CME	*7*	*29.01*	*4.87*	*17-42*
Commitment to music teaching	9	48.49	7.52	11-54

Descriptive results and reliability estimates for music teaching efficacy beliefs and commitment to music teaching variables guided subsequent analyses (including institutional comparisons and contrasts based upon course components) and student participant grouping for qualitative data collection.

Institutional Differences

The National Association of Schools of Music (NASM) classifies schools of music by institution type and number of music majors enrolled. NASM classifications are as follows: Private, 1-50 students; Private, 51-100 students; Private, 101-200 students; Private, 201+ students; Public, 1-100 students; Public, 101-200 students; Public, 201-400 students; Public 401+ students. For the purpose of this study, student participants were labeled according to their institution's NASM classification, and possible group differences were analyzed (see Table 4.08).

Table 4.08. NASM School of Music size classifications and number of participating institutions within each classification.

NASM Size Classification	Number of Participating Institutions
Private 1-50	0
Private 51-100	1
Private 101-200	0
Private 201+	6
Public 1-100	0
Public 101-200	6
Public 201-400	12
Public 401+	16

As an initial procedure, factorial analysis of variance (ANOVA) was used to test for interactive effects of institution type (public or private) and size on participant music teaching efficacy beliefs (PMTE and CME composite) and commitment to music teaching. For institutional size, participating music schools were divided into two categories: those having 400 or fewer students enrolled (25 institutions), and those having 401 or more students enrolled (16

institutions). Although this split resulted in the majority of NASM classifications falling into the "small institution" category, it was the best split in terms of achieving a near-equal number of schools and participants in each group. There were no significant Institution Type x Size interactions for music teaching efficacy beliefs ($F(2, 681) = 3.319$, $p = .037$) or commitment to music teaching (($F(2, 681) = 1.931$, $p = .146$). As a result, the analysis for institutional differences moved to the main effects level whereby group differences for institution type and size were considered separately.

Comparisons of mean music teaching efficacy beliefs and commitment scores across public ($N = 34$) and private ($N = 7$) institutions revealed no significant difference (Music teaching efficacy beliefs, $p = .149$; Commitment, $p = .623$). Similarly, comparisons of mean responses across groups reflecting different institution size (small: ≤ 400 students; large: ≥ 401 students) revealed no significant difference in music teaching efficacy beliefs ($p = .566$) or commitment to music teaching ($p = .051$). Based on these analyses, it can be concluded that differences in music teaching efficacy beliefs and music teaching commitment may be due to factors other than institution type or size. Accordingly, for subsequent analyses all responses were aggregated across these categories (public, private; ≤ 400 students, ≥ 401 students).

Music Teaching Efficacy Beliefs & Commitment: Group Differences for Individual Difference Variables

Three main variables emerged from analyses of the PMTES responses: personal music teaching efficacy beliefs (PMTE), classroom management efficacy beliefs (CME), and commitment to music teaching (CMT). Group differences in these variables were examined across participants' gender, primary instrument, degree program, and year in program using a series of one-way analyses of variance (ANOVA).

ANOVA results and Tukey HSD post hoc analysis revealed that sophomores and juniors had significantly stronger PMTE beliefs when compared to freshmen ($p<.001$). Sophomores ($p<.001$) and juniors ($p<.01$) also reported significantly stronger CME beliefs than freshmen. Figure 4.04 displays group means for PMTE and CME by class. No class-level differences were found for CMT. No significant differences were found in PMTE, CME, or CMT across participant gender, primary instrument area, or degree program.

Figure 4.04. Classroom Management and Personal Music Teaching Efficacy beliefs means by year in degree program
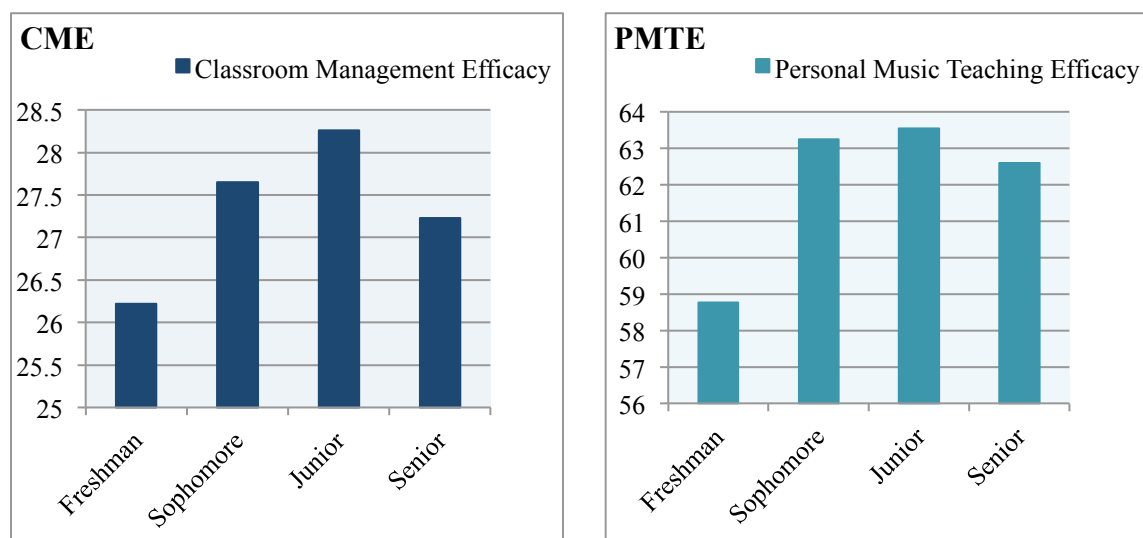
Based on these comparisons, it seems that sophomore and junior-level introductory music education students tend to be more efficacious than freshmen or seniors.

Music teaching efficacy beliefs: Group differences for course variables. Using *t* tests, group differences in personal music teaching efficacy beliefs and classroom management efficacy beliefs were calculated for students who did or did not experience a) multiple types of field experience, b) one-on-one mentoring from a course instructor or teaching assistant, and c) peer teaching, as a part of their introductory music education course. For each of the variables tested (K-12 teaching, K-12 observation, individual mentoring, peer teaching), students who

reported having experience held significantly stronger ($p<.001$) PMTE and CME beliefs than students who did not. Tables 4.09-4.11 display effect sizes for each of these group differences. Cohen's *d* can be interpreted as .2 = small effect, .5 = medium effect, .8 and above = large effect (Meyers, Gamst, & Guarino, 2013).

Table 4.09. Effects of field experience on music teaching efficacy beliefs components

Component	Field Experience	Effect Size (*d*)
PMTE		
	K-12 Observation	.78*
	K-12 Teaching	.39*
CME		
	K-12 Observation	.93*
	K-12 Teaching	.40*

*p<.001

Table 4.10. Effects of mentoring on music teaching efficacy beliefs components

Component		Effect Size (*d*)
PMTE		
	Individual mentoring	1.50*
CME		
	Individual mentoring	1.29*

*p<.001

Table 4.11. Effects of peer teaching on music teaching efficacy beliefs components

Component		Effect Size (*d*)
PMTE		
	Peer teaching	.93*
CME		
	Peer teaching	.66*

*p<.001

Based on this analysis, it appears that both PMTE beliefs and CME beliefs may be impacted by field experience, peer teaching and/or individual mentoring, with the level of influence depending upon the activity itself.

Music Teaching Efficacy Beliefs: Correlational Analyses

For the purpose of correlational analyses, PMTE and CME responses were combined for each participant in order to create a Music Teaching Efficacy beliefs (MTE) composite score. These components were combined a) based on the fact that they were highly correlated ($r = .70$, $p<.001$), and b) to minimize the incidence of small but statistically significant correlations given the sample size and number of variables being correlated.

MTE composite scores ranged from 36 to 114. Small, yet statistically significant correlations were found between music teaching efficacy beliefs (composite score) and two other variables—commitment, and total number of field experience hours while enrolled in an introductory music education course. Table 4.12 displays those relationships.

Table 4.12. Pearson correlations between music teaching efficacy beliefs, commitment, and field experience hours

Music teaching efficacy beliefs		**Correlation coefficient (r)**
	Commitment	.207*
	Total number of field experience hours	.189*

* $p<.01$

Summary of Strand I Results

The majority of introductory music education courses are offered during the freshman or sophomore year, and include both peer teaching and field experience in addition to a wide variety of other course content. The most common type of introductory level field experience is observation in multiple K-12 music classrooms.

Preservice music teachers' music teaching efficacy beliefs can be interpreted as having two dimensions: personal music teaching efficacy beliefs (PTE) and classroom management efficacy beliefs (CME). Although they are distinct components of music teaching efficacy

beliefs, PMTE and CME were significantly, positive correlated. Both PMTE and CME may be impacted through peer teaching, field experience, and individual mentoring.

Music teaching efficacy beliefs and commitment to music teaching were positively correlated, and both variables had a weak positive correlation with participants total field experience hours. No significant differences were found in music teaching efficacy beliefs or commitment to music teaching across gender, primary instrument, institution size, or institution type.

Chapter V

Method: Strand II (Qualitative)

Mixed Methods Sampling: Overview

In social and behavioral science research, sampling strategies are often divided into two categories: probability and purposive. The goal of probability sampling is to achieve representativeness through either random or stratified (subgroups) selection of individuals from a larger population (Tashakkori & Teddlie, 2003). Purposive sampling, in contrast, consists of the deliberate selection of participants based on their ability to answer questions or fulfill criteria that could not be accomplished as thoroughly from other sources (Maxwell, 1997). Probability sampling is most commonly associated with quantitative research, while purposive is likely associated with qualitative. Mixed methods sampling strategies typically involve both probability and purposive sampling techniques, in order to maximize external validity and transferability of findings.

Mixed methods research often involves multiple sampling strategies, and may include different sampling procedures for different strands or levels of analysis (Creswell & Plano Clark, 2011). In a sequential explanatory mixed methods design, selection of appropriate cases is one of the connecting points between quantitative and qualitative strands of data collection (Hanson et al., 2005). Unlike purely quantitative or qualitative study designs, however, there are no established guidelines by which to select cases for second-strand qualitative analysis. Similarly, there are no established standards regarding the size of a qualitative sample relative to the corresponding quantitative sample (Teddlie & Yu, 2007). Selection of sampling strategies appropriate to the type and timing of data collection is therefore largely at researcher discretion.

Strand II Qualitative Sampling: Standard Practices

Drawing upon past research as well as recommendations of mixed methodology scholars, there are some standard practices in the identification of cases for the qualitative strand of a sequential explanatory mixed methods design. Teddlie and Yu (2007) note that in any sequential study, data from the first Strand Is required in order to make sampling decisions about the second strand. Onwegbuzie and Collins (2007) suggest that the time orientation of strands or phases, the relationship between quantitative and qualitative data, and the emphasis placed by the researcher on each type of data should all play a role in sampling decisions. Specifically, the relationship between qualitative and quantitative samples is a pivotal factor influencing the selection of the second phase of sampling. This relationship can be identical (the same group of participants is included in both quantitative and qualitative samples), parallel (samples are different, but selected from the same population), nested (the sample participating in one strand represents a subset of the sample participating in the other strand), or multilevel (samples participating in the two strands are selected from different populations (Onwegbuzie & Collins, 2007).

In the *SAGE Handbook of Mixed Methods in Social and Behavioral Research,* Tashakkori and Teddlie (2010) outline a list of five criteria for mixed methods sampling, gathered from a larger content analysis of mixed methodology practices. Figure 5.01 lists these criteria.

Figure 5.01. Five criteria integral to formulating mixed methods sampling decisions (Onwegbuzie & Collins, 2007; Tashakkori & Teddlie, 2010; Teddlie & Yu, 2007)

Criterion 1:

- Sampling unit selected for each strand should reflect the time orientation of the strands (concurrent or sequential)

Criterion 2:

- Sampling unit selected for each strand should reflect the relationship between quantitative and qualitative samples

Criterion 3:

- Sampling unit selected for each strand should reflect the relationship between the types of sampling strategies used (e.g., probability, purposive) and potential for generalization

Criterion 4:

- Sampling unit selected for each strand should reflect a minimum of one type of data (quantitative or qualitative)

Criterion 5:

- Researcher identifies the relationship between the emphasis of each paradigm and the formulation of appropriate inferences or generalizations

Exemplar studies. Specific case selection approaches utilized in prior explanatory mixed methods studies include selection via convenience or volunteering alone, the division of the larger population into groups (strata) based on quantitative analysis, exploration of typical cases, or following up with outlier or extreme cases (Caracelli & Greene, 1993; Creswell, 2005; Ivankova, Creswell, & Stick, 2006; Morse, 1991). Mixed methods design experts suggest that exploring typical cases and/or following up with outliers are among the most desirable methods of case selection (Caracelli & Greene, 1993; Creswell, 2005).

In a mixed methods sequential explanatory study, Ivankova, Creswell, and Stick (2006) began with a quantitative sample of 207 participants, divided into four possible categories based on demographic data. Through quantitative analysis, percentiles were established using

composite scores of their main outcome variables. The researchers then grouped participants according to demographic data as well as outcome variables, and selected two participants from each of four possible groups, and, using a maximum variation strategy, interviewed one out of each pair selected. This resulted in a qualitative sample of 1.9% of the quantitative population.

Aaron (2005) used a sequential explanatory mixed methods approach to study program directors in a particular field of medical technology. From 284 quantitative participants, Aaron selected 12 program directors to participate in qualitative interviews. These participants were selected through a stratified purposive method, wherein the strata were defined by program type and style of leadership. In addition to the 12 participants chosen based on these characteristics, Aaron added a thirteenth interviewee who was an outlier in the quantitative analysis. The selection of thirteen interviewees from 284 quantitative participants resulted in conducting interviews with 5.4% of the larger sample.

Hancock, Calnan, and Manley (1999) studied perceptions and experiences of dental patients in the United Kingdom. Starting with a quantitative sample of 1,506 participants, the researchers created three large groups based on major quantitative variables. Participants were then selected from each group to participate in qualitative interviews. A total of 50 participants were interviewed—3% of the quantitative sample.

In a sequential mixed methods study, Diederich, Dzbor, and Maynard (2007) used a nesting sampling approach to evaluate program design in library science. The first phase of this study involved the administration of a questionnaire to 240 participants. A volunteer sample of 35 participants participated in qualitative follow up interviews. Both samples were selected purposively, and the qualitative volunteers were selected from the larger quantitative sample.

While there is considerable variation, even among sequential or explanatory mixed methods designs, there is some consensus regarding most useful practices. Nested sampling facilitates both sequential and explanatory designs. For qualitative sampling where the qualitative Strand Is the second strand of data collection, a mixture of volunteer, probability, and/or purposive techniques are usually employed (Aaron, 2005; Diederich, Dzbor, & Maynard, 2007; Hancock, Calnan, & Manley, 1999; Ivankova, Creswell, & Stick, 2006). Additionally, the division of a larger quantitative sample into strata based upon major outcome variables is an accepted and helpful approach to identifying and grouping qualitative participants (Aaron, 2005; Hancock, Calnan, & Manley, 1999, Teddlie & Yu, 2007).

Procedures

During the month of February, 2013, Strand I quantitative analysis was completed and participants were divided into strata based upon major themes and outcome variables. An amendment was submitted to the Institutional Review Board Human Research Committee (IRB/HRC) on February 26, 2013, requesting approval for 25 follow-up interviews. This amendment to the original study protocol was approved on March 6, 2013. All IRB/HRC approval letters can be found in Appendix C.

Interview participants were contacted via email on March 7, 2013, and 24 interviews took place between March 11 and March 29, 2013. A copy of the Strand II invitation letter can be found in Appendix H. Reciprocity was provided to Strand II participants through a) the offer to share study results, b) the offer to share interview transcripts (also a form of validation), and c) the offer of iTunes gift cards. Participants who shared a mailing address (23 out of 24 interviewees) were mailed a $10 iTunes gift card following their interview.

Interviews were transcribed between March 15 and April 5, 2013, and initial coding began on March 24, 2013. Data management strategies used throughout the study included interview headings and line numbers on interview transcripts (Miles & Huberman, 1994). Interview audio files and interview transcripts were stored in a password-protected file on my computer (Miles & Huberman, 1994).

Strand II: Qualitative sampling. The present study is a sequential explanatory design, wherein both quantitative and qualitative paradigms are equally weighted. Because of the sequential nature of the study, the qualitative interview sample is a subset of the larger quantitative sample—a nested sample (Onwegbuzie & Collins, 2007).

Upon completion of the PMTES (Strand I), 46.5% ($n = 317$) of student participants volunteered to be contacted for a follow-up interview. Quantitative analysis revealed a strong relationship between efficacy beliefs, field experience, and individual mentoring. Specifically, students who received individual mentoring reported significantly stronger efficacy beliefs (in particular, stronger personal music teaching efficacy beliefs), as did students who participated in K-12 classroom observations (in particular, stronger classroom management efficacy beliefs).

Due to results of quantitative analyses, student participants who indicated willingness to participate in an interview were divided into groups according to their efficacy beliefs, field experience, and whether or not they received individual mentoring as a part of their introductory course. This resulted in a total of 32 possible strata. Eleven of the 32 strata contained greater than 1% of the total student n, and as such, these groups were utilized as the starting point for Strand II sampling (see Table 5.01). This process most closely matches Teddlie and Yu's (2007) stratified purposive sampling technique. Participants were divided into strata, and a small number of interviewees were selected (randomly) from each strata.

The sampling technique used for the second strand of the present study can be described as a nested stratified purposive sample (Maxwell, 1997; Onwegbuzie & Collins, 2007; Tashakkori & Teddlie, 2003; Teddlie & Yu, 2007).

Table 5.01. Participant groups utilized for Strand II sampling, organized by Personal Music Teaching Efficacy beliefs (PMTE), Classroom Management Efficacy beliefs (CME), Commitment to teaching (COM), experience with K-12 observation, and experience with individual mentoring**

Interview Group #	PTE	CME	COM	K-12 Observation	Mentoring	% of Participants in Group
1*	H	H	H	Y	Y	12.7%
2	H	H	H	Y	N	0%
3	H	H	H	N	Y	.044%
4	H	H	H	N	N	0%
5*	H	H	L	Y	Y	1.9%
6	H	H	L	Y	N	0%
7	H	H	L	N	Y	0%
8	H	H	L	N	N	0%
9*	H	L	L	Y	Y	2.9%
10	H	L	L	Y	N	.07%
11	H	L	L	N	Y	.044%
12	H	L	L	N	N	0%
13*	H	L	H	Y	Y	11%
14*	H	L	H	Y	N	1.2%
15	H	L	H	N	Y	.029%
16	H	L	H	N	N	.015%
17	L	H	H	Y	Y	.044%
18	L	H	H	Y	N	0%
19	L	H	H	N	Y	0%
20	L	H	H	N	N	0%
21*	L	L	H	Y	Y	4.7%
22*	L	L	H	Y	N	7.5%
23	L	L	H	N	Y	.015%
24*	L	L	H	N	N	3.1%
25	L	H	L	Y	Y	.029%
26	L	H	L	Y	N	0%
27	L	H	L	N	Y	0%
28	L	H	L	N	N	0%
29*	L	L	L	Y	Y	3.1%
30*	L	L	L	Y	N	3.8%
31	L	L	L	N	Y	.044%
32*	L	L	L	N	N	2.5%

*group utilized for Strand II sampling
** H = high, L = low, Y = yes, N = no

Using this sampling strategy, twenty-two participants were selected to participate in Strand II interviews. Upon further examination, this resulted in only four interviewees in the "Classroom Management Efficacy beliefs-high" category, and only four interviewees in the "K-12 Observation-no" category. Based on a desire to understand possible trends in participants' experience, two additional participants were purposively selected from the underrepresented categories, bringing the interview total to twenty-four. One of the additional participants was in the high classroom management efficacy beliefs group, and both were in the group that had not received mentoring as a part of their introductory music education course. The high classroom management efficacy beliefs group was significantly smaller than some of the other groups, and as such it was only possible to select one additional participant in this category. Table 5.02 shows the number of interviewees within each level of every outcome variable.

Table 5.02.   Number of Strand II interviewees within each level of every Strand I outcome variable

Variable	# of interviewees
Personal Teaching Efficacy beliefs-high	10
Personal Teaching Efficacy beliefs -low	12
Classroom Management Efficacy beliefs-high	5
Classroom Management Efficacy beliefs-low	14
Commitment-high	12
Commitment-low	14
K-12 Observation-yes	18
K-12 Observation-no	6
Mentoring-yes	12
Mentoring-no	10

Rationale for interview structure.   The structure of Strand II was phenomenological in nature. Interviews were conducted for the purpose of exploring and elaborating upon experiential data, as well as to understand the meaning of participants' experiences (Seidman, 1991; Van Manen, 1990). Much of the necessary contextual information

and experiential detail was collected through quantitative measures during Strand I. The primary purpose of Strand II was to ask participants to reflect and elaborate upon the meaning of their introductory music education course experiences (Seidman, 1991).

    Researcher background and role. As a K-12 music teacher, I became interested in teaching efficacy beliefs, and the ways in which the strength of those beliefs may impact career commitment, persistence, and innovation in teaching. Specifically, I was interested in what factors might play a role in certain teachers' adaptation within a challenging pedagogical situation or school environment, while others were apt to seek a change in position or leave the profession entirely. My initial interest in introductory music education courses stemmed from my experience teaching Introduction to Music Education at the University of Colorado during the fall semester, 2011. Prior to my role as course instructor, I had served as teaching assistant, practicum coordinator, and practicum mentor for the same course. Through my involvement in teaching and mentoring introductory music education students, I saw a need for research into the ways in which music teaching efficacy beliefs and commitment are cultivated within the context of early course experiences. I therefore have both a personal and professional interest in issues of course structure, curricular experiences, and the development of preservice music teachers' beliefs through an introductory course.

    Although I am invested in this topic, my role throughout both strands of the present study was that of mixed methods researcher. Based on my prior work with introductory music education students, I carried some assumptions regarding possible ways in which undergraduates may perceive certain course experiences. Throughout the process of developing interview questions and conducting interviews however, I engaged in personal reflection, acknowledging my own bias and making every effort to remain unbiased in my interactions with course

instructors and undergraduates. For example, I asked participants to describe teaching, observation, and mentoring experiences rather than drawing conclusions based upon my own assumptions about the ways in which such experiences were structured. Additionally, after interview participants were identified, I separated their Strand I efficacy beliefs belief and commitment data from their Strand II interview transcript and did not compare the two until each interview had been transcribed.

My role during Strand II was as an interviewer. As detailed in Table 5.03, interview topics and questions were revised in order to remove potentially judgmental and/or biased tone. For example, questions that originally asked how an experience impacted a participant's music teaching confidence were reworded to instead simply ask for description of a particular experience. I then asked follow-up questions, using participants' own wording or experiences to prompt further detail regarding teaching confidence or strength of commitment. Throughout the data analysis process, I acknowledged my own assumptions through analytic memos about possible trends in participants' experiences as related to my prior teaching experience. In order to avoid my own experience creating a bias in data analysis, however, I did not reference or reread any memos until the first round of coding was complete.

Interview protocol design. The protocol utilized for Strand II interviews was developed based upon major outcome variables identified in Strand I: personal music teaching efficacy beliefs, classroom management efficacy beliefs, and commitment to music teaching. Introductory music education course experiences identified as having a significant impact on music teaching efficacy beliefs and/or commitment included K-12 observation and individual mentoring. Due to the large effect sizes related to group differences in efficacy beliefs and commitment means, the following relationships were explored through Strand II qualitative

interviews: possible relationships between K-12 observation experiences and PMTE or CME; possible relationship between opportunities for individual mentoring and PMTE or CME; influence of peer teaching (or other course components) on PMTE and CME. Because relational questions could be leading, and may result in biased answers, participants were asked to describe events and activities as a way to gauge whether a relationship existed between constructs.

The Strand II interview protocol was revised over a period of two weeks through engaging in external audit with an experienced qualitative researcher. In order to eliminate biased or judgmental tone, questions were revised to ask for use or context as opposed to meaning (Spradley, 1979). Question wording was revised in order to allow for more specific and/or narrative descriptions of events, as well as to establish rapport. Final types of questions included in the Strand II interview protocol included specific and task-related grand tour questions (intended to allow participants to simulate parts of experiences or complete experiences, such as field observations), as well as example questions (asking for specific examples of a particular occurrence, such as peer teaching or interactions with a mentor), and experience questions (asking for recollection and description of a particular experience) (Spradley, 1979). Table 5.03 displays examples of first and final interview questions.

Table 5.03. Sample Strand II interview questions: First and final versions

Initial Question	Final Question Included in Interview Protocol
How did your classroom observations impact your thinking about your own teaching?	*What kinds of thoughts do you have when observing in _____ classroom?*
Have your interactions with your mentor impacted your confidence in your own teaching?	*Can you describe how your interactions with your mentor might shape your thinking about your own teaching?*

Interview questions were divided into the following categories: background experiences, triangulation questions (verifying PMTES responses), field experience, mentoring, and other

course experiences. The full interview protocol utilized for Strand II interviews can be found in Appendix I.

Strand II: Data collection. Strand II interviews were conducted over a three-week period during March, 2013. Participants were given the option of interviewing via phone, Skype version 6.3.0.582 for Mac, or FaceTime version 2.0. Seven participants selected a phone interview, ten selected Skype, and seven chose FaceTime. All interviews were recorded for transcription. Phone interviews were recorded using the TapeACall (a TelAPI application) application for iPhone 4S. Skype and FaceTime interviews were recorded using GarageBand '11 version 6.0.5. Interview duration ranged from 32 to 56 minutes, with a mean duration of 42 minutes.

Strand II: Trustworthiness. The term *trustworthiness* encompasses issues of applicability, consistency, neutrality, and truthfulness of research findings (Lincoln & Guba, 1985). Lincoln and Guba (1985) offer four key areas for establishing trustworthiness of qualitative research: credibility, transferability, dependability, and confirmability.

Credibility refers to the degree of truthfulness or "truth value" (Lincoln & Guba, 1985, p. 290) of data. In order to ensure credibility, I engaged in method triangulation verify findings between PMTES data (quantitative) and interview transcripts (qualitative) (Denzin, 1984). I also engaged in negative case analysis, which Lincoln and Guba (1985) define as the "process of revising hypotheses with hindsight" (p. 309). During this process, I followed up on several outliers in interview data (Miles & Huberman, 1994). For example, based on quantitative analysis, it seemed that participants who had high music teaching efficacy beliefs but had not experienced K-12 observation or mentoring as a part of their introductory music education course were outliers. By following up with these specific cases through Strand II interviews, I

uncovered additional details that helped to form a more complete and nuanced picture of participants' individual experience. Finally, after all interview data had been transcribed and coded, I invited five Strand II participants to participate in formal member checks (Lincoln & Guba, 1985) in which we reviewed and discussed the meaning of several quotes and participants were able to add details where necessary. Member checks served a confirmatory function, while also educating participants and providing added reciprocity.

Transferability is a measure of whether or not findings can be generalized (or transferred) to other cases or settings. Because the present study involved both quantitative and qualitative methodologies, the breadth and depth of data presented allow for complete understanding, and transferability can then be determined by the reader (Lincoln & Guba, 1985). Further, plentiful data and thick description of introductory music education course experiences (chapter 4), as well as the presentation of participants' profiles and experiences through chapter 6 data excerpts will allow readers to judge transferability of results to their own course context or institution.

Dependability encompasses the procedural elements of qualitative research, while confirmability is the degree to which a researcher makes efforts to acknowledge and remove bias from data collection and analysis. Data management methods contributed to the dependability of results in this study, as organization is key to data retrieval during analysis. For example, all interview transcripts were identified according to participant number, pseudonym, interview date, and time. Line number and border features were utilized (Microsoft Word version 14.3.2 for Mac) to maintain organization of each interview transcript. In order to ensure both dependability and credibility of my method and analysis, I engaged in member checks for clarification and confirmation of meaning or intent with interview participants (Lincoln & Guba, 1985).

Rapport. The development of rapport was somewhat of a challenge within this investigation, as participants were enrolled in a variety of institutions around the country. It was therefore impossible to conduct interviews in person or to spend time becoming acclimated informally. I did, however, make efforts to establish rapport through initial email conversations with each participant. Participants had the freedom to select interview dates and times that worked best for their schedule. Participants were also able to select the method of interview (phone or two forms of video chat, see below). While I honored participants' requests regarding their preferred method of interview, I found that video interviews (Skype or FaceTime) were preferable to phone interviews, as the video chat interface more closely mimics face to face conversation.

In both phone and video interviews, I took time to introduce myself, my role in the study, and to thank participants for taking time out of their busy schedules to speak with me. Throughout each interview, I reiterated that it was my goal to understand the participant's own experience and point of view. I also restated parts of interviewees' explanations, demonstrating interest in their stories (Spradley, 1979). In the case of video interviews, I made efforts to maintain eye contact throughout, taking minimal notes and giving participants my undivided attention.

Given the timing and conditions of Strand II interviews, these measures for building rapport were the most effective. In both phone and video interviews, participants seemed to relax after the first few minutes of conversation, and in most cases, provided significant detail about their introductory music education course experience, efficacy beliefs, commitment to music teaching, and other elements. In order to build further rapport and provide reciprocity, each interview participant was compensated for their time with a $10 iTunes gift card.

Strand II: Data analysis.

Transcription. Due to time constraints, as well as to maximize time and stamina for the coding process, I transcribed thirteen of the twenty-four interviews, and sent the remaining eleven to a transcription service. Each interview took approximately 90 minutes to transcribe.

Analytic memos. A memo is a way of documenting ideas and connections during the interpretive process. Memos can serve as an aid to the data analysis process, as the researcher records ideas, leads, and initial perceptions regarding themes or meanings derived from data. Analytic memos are typically conceptual, tying together different codes or pieces of data (Glaser, 1992). Prior to, and during the process of transcription, I engaged in memoing as a form of preliminary analysis. Memos were focused on possible themes that I noticed throughout the coding process, as well as areas to be addressed or clarified through member checks (Bogdan & Biklen, 1992; Lincoln & Guba, 1985).

Coding. In sequential explanatory mixed methods research, the qualitative strand serves an extension or explanation of the quantitative strand (Creswell & Plano Clark, 2011). Based on Strand I analysis, therefore, I assembled an a priori start list of possible codes (Miles & Huberman, 1994). A priori codes are displayed in Figure 5.02.

Figure 5.02. A priori start list of codes based upon Strand I quantitative analysis
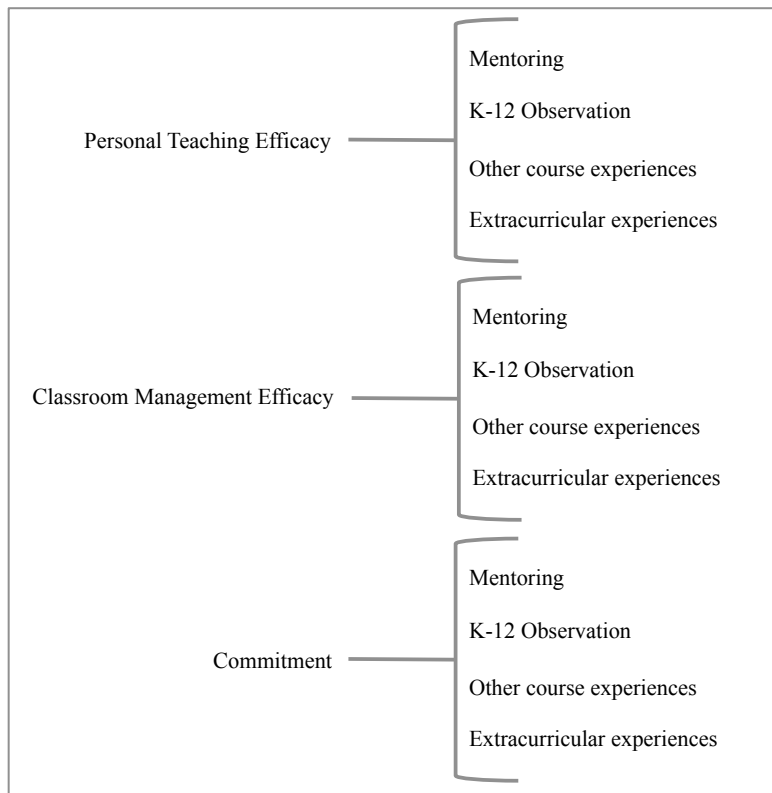
I revised these codes throughout the process of descriptive coding (Miles & Huberman, 1994), so as to maintain a low level of inference (LeCompte & Schensul, 1999) while also allowing other codes and explanations to emerge from interview data. Descriptive coding is a preliminary way of grouping or labeling data based upon the topic of a particular passage or area. Descriptive codes typically consist of a single word or short phrase that that answer the question "What is going on here?" (Saldaña, 2009). During the process of descriptive coding, several in vivo codes emerged, particularly in participants' descriptions of the qualities of their mentoring experience. In vivo codes are words or phrases taken from the actual language found in the interview transcript (Strauss, 1987). Multiple participants used words like "helpful" or "individual," and these terms therefore became a part of the coding scheme.

Following descriptive coding, I made several additional passes through the data, making note of items that were double-coded or similarly coded. At this point, I was able to revise the codebook, moving toward the final coding scheme (see Figure 5.03). During this process it was clear that larger, cross-case themes were beginning to emerge (Lincoln & Guba, 1985), and I was able to group some of the initial codes. I then engaged in pattern coding across multiple interview transcripts (Miles & Huberman, 1994), and finally, thematic coding, or "themeing" (Saldaña, 2009).

Pattern coding is a second-cycle process (Saldaña, 2009) wherein major themes are beginning to emerge from data. Pattern codes are therefore explanatory, pulling together a large amount of data "into a more meaningful and parsimonious unit of analysis" (Miles & Huberman, 1994, p. 69). In the case of this study, pattern codes emerged across multiple participants, and served as a springboard to the extraction of several overarching themes. Saldaña (2009) refers to a process called "themeing the data." Themeing is a process by which the researcher draws connections or highlights patterns across multiple participants, allowing categories or large claims to emerge from the data (Ezzy, 2002). This is a type of coding, in that it is the search for themes within data, but typically occurs following initial coding endeavors. Themeing differs slightly from earlier stages of coding, as it allows for the expression of connections between codes, larger patterns, or aggregate codes in the form of statements of claims, rather than through single word or phrase descriptors (Saldaña, 2009).

At the conclusion of Strand II analysis, major outcome variables and course experiences included in the a priori start list most closely matched pattern and thematic codes. Final codes are displayed in Figure 5.03. The complete codebook can be found in Appendix J.

Figure 5.03. Final code list
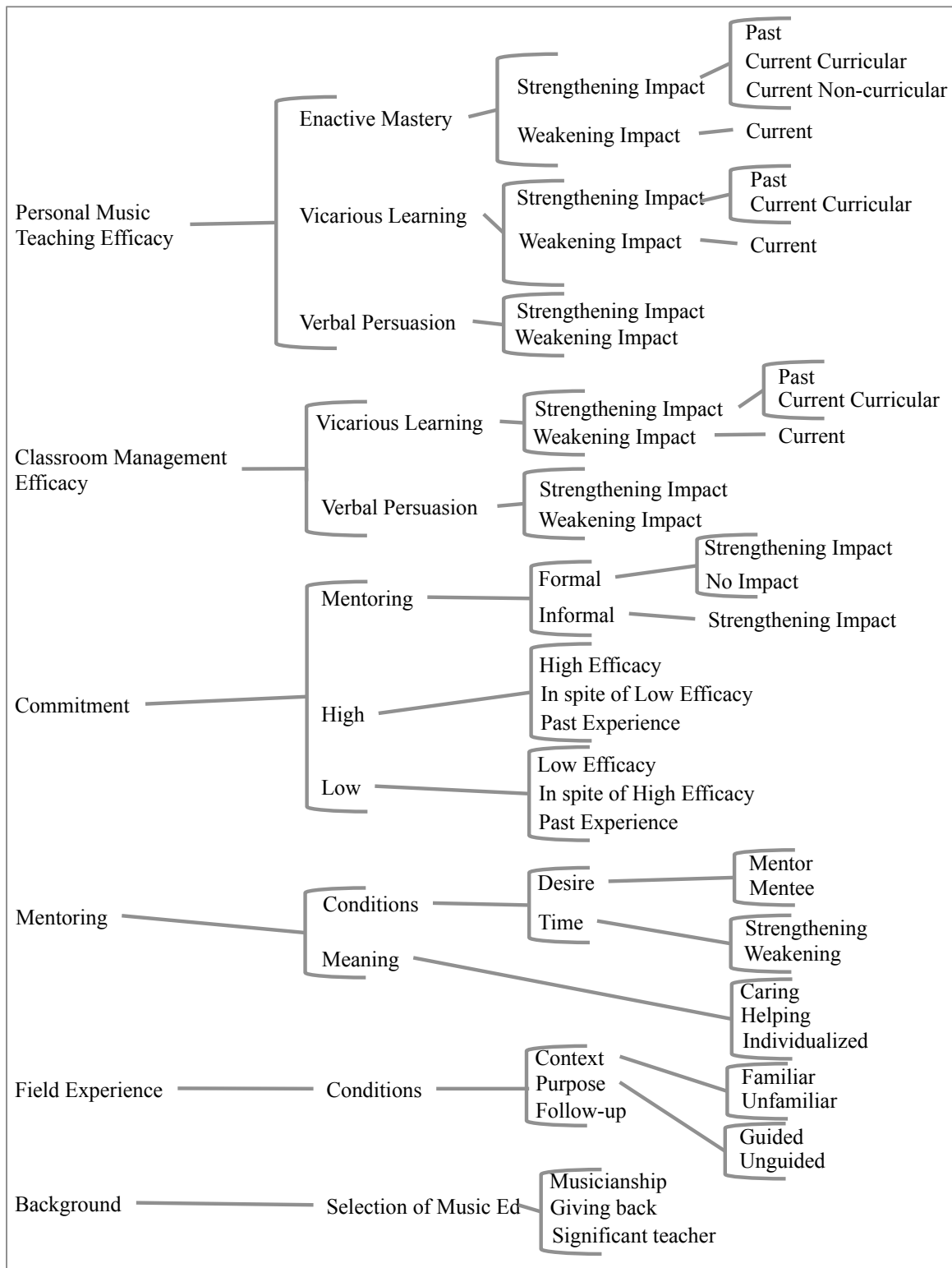
Data displays. Qualitative data was also analyzed through the use of data displays. A data display is a way to arrange data in a manner that helps to make visual, systematic sense of themes and occurrences (Miles & Huberman, 1994). Both data displays utilized in Strand II analysis were causal models. A causal model allows a researcher to transcend the notion of association between two or more variables, and to instead suggest a time-ordered relationship whereby one variable impacts another. This type of data display is created based upon multiple case analysis, and requires higher order effort, as propositions or conclusions are drawn regarding a network of interrelated variables (Miles & Huberman, 1994, p. 222). I used a causal chain—simple linear progression—to describe the relationship between vicarious learning, enactive mastery experiences, and music teaching efficacy beliefs described by several participants. Additionally, I used a causal network—displaying cross-case themes to demonstrate the most influential variable relationships—to explain the collective relationship between mentoring, field observation, teaching, and extracurricular experiences upon personal music teaching efficacy beliefs, classroom management efficacy beliefs, and commitment to music teaching (Miles & Huberman, 1994).

Chapter VI

Qualitative Findings

Chapter Overview

This chapter is the qualitative equivalent of chapter 4, in which quantitative results are presented. Significant qualitative findings are presented. Quantitative findings are not explicitly tied to the presentation of results in this chapter, with the exception of the use of significant outcome variables, Personal Music Teaching Efficacy (PMTE), Classroom Management Efficacy (CME), and commitment. As is the case for sequential explanatory design studies (Creswell & Plano-Clark, 2011), a full description of mixed methods results is presented in the next chapter (chapter 7).

Based on qualitative analysis, mentoring and field experiences were found to be salient aspects of participants' introductory music education course experience. The characteristics of mentoring and field experience, including participants' perceptions of more and less beneficial qualities of these experiences are described. A metaphor is then presented which synthesizes various aspects of field experience, identified through interviews as impacting music teaching efficacy beliefs. I then present three themes focused on experiences that shaped music teaching efficacy beliefs. Significant findings related to commitment emerged primarily from mixed methods analysis, and are presented in the next chapter (chapter 7).

Qualitative Sampling

Using a nested stratified purposive sampling technique (Maxwell, 1997; Onwegbuzie & Collins, 2007; Tashakkori & Teddlie, 2003; Teddlie & Yu, 2007) as described in chapter 5, twenty-two participants were selected to participate in follow-up interviews. Based on a desire to fully understand possible trends in participants' experience, two additional participants were

purposively selected from underrepresented categories (high classroom management efficacy; no

individual mentoring as a part of the introductory music education course), bringing the

interview total to twenty-four. Interviews were recorded, transcribed, and cataloged according to

participant number and strata. Of the twenty-four interviewees, there were ten freshmen, ten

sophomores, and four juniors. Areas of emphasis indicated were band (11), vocal (7) and

orchestra (6). Table 6.01 displays interviewees' pseudonyms, year in program, and areas of

emphasis.

Table 6.01. Strand II participants

Participant (Pseudonym)	Gender	Year in Program	Area of Emphasis
Daniel	M	Freshman	Instrumental – Band
Jenny	F	Sophomore	Vocal/General
Mark	M	Freshman	Vocal
Sarah	F	Freshman	Instrumental – Orchestra
Terrence	M	Junior	Instrumental – Band
Alyssa	F	Freshman	Vocal/Piano
Adam	M	Sophomore	Vocal
Carolyn	F	Sophomore	Instrumental – Band
Kevin	M	Freshman	Instrumental – Orchestra
Travis	M	Sophomore	Vocal
José	M	Freshman	Instrumental – Band
Maria	F	Freshman	Instrumental – Band
Daphne	F	Freshman	Instrumental – Orchestra
Larry	M	Freshman	Instrumental – Band
Allison	F	Junior	Instrumental – Band
Serafina	F	Sophomore	Instrumental – Band
Chelsea	F	Sophomore	Instrumental – Orchestra
John	M	Junior	Instrumental – Band
Rebecca	F	Sophomore	Instrumental – Band
Meghan	F	Freshman	Vocal
Laura	F	Sophomore	Vocal/General
Patrick	M	Sophomore	Instrumental – Orchestra
Gareth	M	Sophomore	Instrumental – Orchestra
Sean	M	Junior	Instrumental – Band

Coding Scheme

Personal teaching efficacy (PTE), classroom management efficacy (CME), commitment, mentoring, and field experience emerged as thematic codes (Saldaña, 2009). Within each theme, there were several patterns, as well as smaller or more specific descriptive codes (LeCompte & Schensul, 1999; Miles & Huberman, 1994). Patterns in coding included the strengthening and/or weakening impact of particular experiences upon participants' PTE, CME, or commitment, as well as the conditions necessary for such impacts to occur. A more detailed explanation of coding procedures is provided in chapter 5, and the complete Strand II codebook can be found in Appendix J.

Individual Mentoring: Characteristics and Perception of Experience

Many participants identified a music education mentoring relationship, either as a result of an introductory course requirement, or due to non-curricular circumstances. The following is an explanation of participants' perceptions regarding the quality of their mentoring relationships, as well as several conditions perceived as impacting the quality of mentoring. Interview data revealed that participants perceived individual mentoring as either a) beneficial,

> *Jenny*
> She's *such* a good teacher…Sometimes it helps just to hear someone who's that good share their experiences, whether they were positive or negative.

> *Daniel*
> His door is always open…he always takes time to talk with me. Those individual conversations are one of the most significant things for me when it comes to my thinking, or my confidence in my teaching.

or b) being of little consequence.

> *Daphne*
> I know I want to teach music, and I'm looking forward to actually *getting* [emphasis hers] to teach music, but those one-on-one times didn't really make a difference to me.

Larry
It seemed like something that was a required part of the class as opposed to something really helpful. I didn't really feel like it made that much of an impact for me.

Further conversation revealed several elements that determined whether or not preservice music teachers found individual mentoring experiences to be beneficial to their confidence, or to have no impact at all. Time was a factor that seemed to work in favor of positive mentoring experiences in cases where mentors and mentees had coinciding free time. When time was perceived as rushed or limited, however, it became a deterrent from productive mentoring. Desire for the mentoring relationship also played a role in its effectiveness. Desire on the part of both mentor and mentee emerged as a significant factor in perceived benefit from a mentoring relationship.

Availability of time. For many students and mentors, the availability of time for conversation or reflection played an important role in the mentoring relationship.

Adam
We would always sit down and talk about why she did things a certain way, or how she approaches any given situation, and she answered any questions I had…It happened that way mostly because of my schedule, her schedule. Things lined up for both of us to have some time.

As in Adam's case, time was typically identified as a mutual resource or commitment. Participants noted that alignment of schedules or coinciding free time facilitated time for productive mentoring relationships, whereas a lack of time sometimes prevented mentoring. Ample time for mentoring was most often described as a coincidence rather than as a result of scheduling or planning, whereas a lack of sufficient time was more often due to planning or schedule demands.

Lack of time for mentoring did not emerge as a damaging factor in terms of preservice

music teachers' efficacy beliefs or commitment. It did, however, play a role in whether or not

participants felt that they could have a productive mentoring relationship.

> *Kevin*
> I know that like, for me, I'm taking 19 credits and I have a job, so it would be really hard
> for me to find time to sit down and talk with [professor] outside of class, even if I needed
> help.

> *Terrence*
> You have your short little meeting [with introductory course instructor]…he has a lot of
> other students to meet with one after another, so there isn't really time to talk about a
> different issue, or if you need help with something specific.

Unlike the positive nature of coinciding free time, a lack of time or availability on the part of

either mentor or mentee had the potential to negate any benefit of the mentoring relationship.

Kevin noted a lack of available time in his own schedule, while Terrence identified the short

duration and rushed nature of meetings with his course instructor.

Mentor & mentee desire for mentoring relationship. Students who perceived their

mentors to be committed to helping cited this desire or investment as a positive aspect of the

mentoring relationship.

> *Mark*
> M: When we do have a chance to actually like, sit down and talk in a focused way, he
> really listens and gives helpful suggestions. You can tell that he's really committed to
> being helpful because he always asks questions and kind of caters his feedback based on
> your specific issue.
> S: Can you give me an example of how you know he's committed?
> M: One thing is, for example, if the phone rings or if the email thing goes off on his
> computer, he will usually say like, 'don't worry about it,' or 'I'll call them back.' It's
> not…other professors sometimes wouldn't put other things on hold like that just because
> they have a student in their studio.

In this excerpt, Mark notes that his mentor would put other obligations on hold in order to focus

his attention on their conversation, and perceived this behavior as a sign of his mentor's desire to

invest in their relationship. Mark and others who perceived their mentoring relationships to be

beneficial often noted that they felt certain that their mentor had a strong desire to help. Mark

also alludes to the individualized nature of his mentor's feedback, which also emerged as a

significant characteristic of mentoring relationships (discussed later in this chapter).

Similar to perceived investment or desire on the part of a mentor, participants' desire for

a mentoring relationship emerged as a significant element in the effectiveness of a mentor's

influence.

Maria
He's someone who I really respect as a teacher, so when I have a question or wonder about how to approach something, I make a point to ask his opinion about it. I think it's important to have…almost like role models for the kind of teacher you'd like to be, and then to seek out their counsel when you need help with something.

Maria, like several other participants, identified her own initiative as a catalyst in the mentoring

relationship that she perceived as positive. Some participants noted that it was their own desire

for input, perspective, or feedback from a particular individual that served as a catalyst in

creating a positive mentoring relationship.

Characteristics of effective mentors.   In addition to sufficient time and desire on the

part of both mentor and mentee, participants identified several other conditions or characteristics

of mentoring relationships. Participants who had constructive mentoring experiences described

their mentors as caring, helpful, and providing individualized attention or feedback. These

characteristics were not always distinct, in that they were often related to each other, or to other

elements such as time or desire. These three characteristics—caring, helpful, and providing

individualized attention—are worthy of mention however, as they were in vivo codes ("cares" or

"caring," and "helps" or "helpful") (Saldaña, 2009), and were identified repeatedly by several

participants.

Caring. Alyssa was one participant who identified her music education mentor as a caring person, comparing her interactions with him to interactions with professors in other areas.

> *Alyssa*
> A: Sometimes other classes or string studio activities are more detached, a little cut-throat, honestly. But since teaching is about relating to people, especially, I think it's just good having that relationship and knowing someone really cares about your learning and growing as a teacher.
> S: What makes you say that [professor] cares about your growing as a teacher?
> A: He comes right out and says it, but it's also the types of questions he asks, or the amount of time he spends listening or reassuring you of something.

The notion of a caring mentor was very similar to participants' perceptions of mentor desire or investment in the relationship. While mentor desire was more often linked to time or behaviors (such as ignoring phone calls or emails during mentoring time), the perception of a caring mentor was more often linked to the mentor's words or suggestions. Like Alyssa, several participants specifically noted that their mentor had said the phrase "I care" (about your concerns or development as a teacher), or demonstrated caring through attention or questions and answers about a topic of particular interest or concern to the mentee. As Alyssa notes, the perception of a caring mentor was comforting and reassuring to participants in this study.

Helpful. Based on mentors' knowledge and the ways in which they shared their knowledge, some participants identified their mentoring relationship as particularly helpful.

> *Mark*
> It's kind of like, no matter what type of situation we're talking about, he's taught in a similar situation, and he brings that experience in in a way that really helps you understand or think about it in a new way. It's not like he's talking about his own experience just to point out how good a teacher he is. He does it in a way that you know he's saying, 'here, let me help you benefit from my experience with….whatever it is.'

The notion of a helpful mentor was most often tied to the mentor's content knowledge, as well as the way(s) in which that knowledge was shared with the mentee. Within the *helpful* code were elements of relevance and appropriateness in the types and timing of knowledge shared. For

example, Mark notes that although his mentor was a very experienced teacher, Mark perceived

his sharing of past experiences as helpful rather than showing off or "just to point out how good

a teacher he is." Mark was one of several participants who characterized their mentor, either due

to approach wealth of knowledge, as helpful. The perception of a helpful nature played a role in

participants' desire to continue the mentoring relationship.

   Individualized.   Several participants seemed to appreciate the individualized nature

of their mentoring relationship, particularly when contrasting individual mentoring and larger

music education classes.

> *Sarah*
> I think the biggest difference is…this is going to sound weird, but you know the question
> box in middle school health class? In a way, it's almost like that. When you get that one-
> on-one time, you can ask whatever you want without being concerned with how it sounds
> to everyone else in the class. And the answers you get, or the conversation you
> have…that's really specific to you as well. Whereas the larger class discussions are more
> general.

The individualized nature of the mentoring relationship was an important element for many

participants. Whether the directness or specificity of feedback (as mentioned previously by

Mark), or the physical presence of only the mentor and mentee in the conversation (like Sarah),

individual attention and feedback was an important aspect of mentoring relationships. Like

Sarah, many participants noted that their interactions with a mentor were catered specifically to

their needs. This experience was sometimes contrasted with other aspects of coursework such as

lecture or discussions. Participants cited the individualized nature of a mentoring relationship as

particularly beneficial.

Field Experience: Characteristics and Perception of Experience

   Like mentoring, participants identified several characteristics or conditions of field

observations that played a significant role in shaping their perception of the experience.

Observation in K-12 classrooms was by far the most common type of field experience included within the introductory music education courses in this study. Familiarity of setting and purpose or quality of the observation experience emerged as significant in impacting participants' music teaching efficacy beliefs (both PMTE and CME), as well as their outlook on the teaching context they observed. In addition, the presence or absence of follow-up discussion with peers or a mentor was identified by participants as having a significant relationship with the effectiveness of a field experience.

Familiarity of setting. Participants identified the setting of their K-12 observations as influential in their thoughts about future career options, and in some cases, their music teaching efficacy beliefs. Interviewees often compared observation settings with their own musical backgrounds. For instance, string majors were most comfortable in orchestra classrooms, woodwind and brass majors in band classrooms, and vocalists in choir classrooms. Generally speaking, participants were surprised, challenged, or even dissuaded by classroom environments that were dissimilar to their primary area, and therefore seemed more readily able to view themselves functioning successfully in those classrooms that were more familiar. In the case of elementary observations, some participants pointed out that they felt that they had little frame of reference for this setting, having either not experienced elementary music as a student, or being too far removed from elementary school to remember.

Larry, a saxophone player, entered his introductory music education course with the belief that he would be most successful teaching high school band. Here, he describes his own background in contrast to his observation site:

> *Larry*
> My background, I play saxophone, mostly tenor, but alto, too. But my background is in band. Concert band, jazz band. I never sang in a choir or anything, I think mostly because I was so involved in band stuff.

I did have music in elementary school, I know, but I don't remember that much of it to be honest. And what I do remember is not, not all that positive, I guess. Not really negative either, but it's not like I had this really meaningful music class as an elementary kid and that's when I dedicated my life to music. That came a lot later for me, after I started playing saxophone.

Last semester I observed an elementary music class…3rd grade, I think. Anyway, this teacher, she was a good teacher, but there were so many things that I just couldn't see myself doing as far as the way she was teaching and the activities she did with them. Singing, singing songs with motions, and songs about things like, that are probably appropriate for that age level, but for me it's pretty corny. It's the delivery, too. I think there are two layers to it, really. One is that I don't see myself connecting with kids that age. I think I would work a lot better with older students, high school band maybe. But the second thing is that's not musically fulfilling for me. That's another reason I really think I would be more suited to teaching high school band, jazz band. The kind of situations I'm more familiar with, that's where I excel more.

Similar to Larry, Carolyn entered her music teacher education program feeling certain that she wanted to teach high school band. Here, she describes an observation experience that she identifies as having opened her mind to a different possibility.

Carolyn
I definitely thought coming into the program [at my university] that I wanted to teach high school band. Most of the reason I majored in music ed was the experience I had in band in high school, and also my relationship, I had a really positive relationship with my high school band director, like I mentioned before. But, so I was pretty sure that's where I was headed because I was sure I'd enjoy it, and because I want to kind of recreate, I guess the same kind of experience I had.

We did two observations of a middle school band. And I…I would say I was open-minded, but I didn't think it would really change my opinion about wanting to teach high school. The school where we observed has a pretty good music program, I've heard. I know the band teacher is really respected, like people have student taught with him in the past. I think they have three separate bands for each grade, and probably the same thing for orchestra and choir. They played really well. I was surprised by how well they played because, just being middle school I expected them to be a lot less proficient. And the format of the rehearsal, or the way [their teacher] went about doing certain things, it wasn't all that different from what I had experienced in high school band. It was really because of visiting that school that I started considering middle school more of a possibility. I think it could be fun like, they're more mature but not as set in their ways as high school kids. It seemed like you could have even more of a variety of students in band at that age. It kind of opened my mind more to possibly teaching middle school band at first, and then moving on to a high school position. Or I don't know, maybe I would enjoy middle school and end up not wanting to move on.

Both Larry and Carolyn entered their undergraduate program with the desire to teach high school

band. Larry perceived his observation of a third grade music class as completely out of his comfort zone, differing considerably from his area of strength. For Larry, this experience served as a deterrent to teaching elementary music, and fortified his conviction that he would be most successful teaching high school band. Carolyn, in contrast, observed a middle school band class. Although not originally open to teaching middle school, she perceived this environment as "not all that different" from what she had experienced (and was looking forward to teaching) in high school band. For Carolyn, this experience had a mind-opening effect. Because she felt comfortable in a reasonably familiar environment, she began to consider the possibility of teaching middle school instead of high school band. While Larry went on to state that he "wouldn't be successful…in that kind of setting," Carolyn indicated that her middle school band observations had a positive impact on her music teaching efficacy beliefs, noting that she felt that she could be an effective and successful teacher at the middle school level. Experiences like Larry's and Carolyn's were also mediated by the structure or purpose of the observation itself, as well as by follow-up discussion. These additional influences will be addressed later in the chapter.

Structure of field experience: "Never *just* observing." In addition to the classroom context of field observations, participants noted that the structure of each observation was particularly significant. In particular, several participants brought up the helpful nature of note taking (observation protocol, or note taking prompts) or other direction (being provided with the K-12 teacher's lesson plan) in their observation, while others cited being invited to participate in the lesson itself instead of passively observing.

Rebecca, a sophomore clarinetist, described being invited to participate in an elementary music class during a field observation:

R: In the fourth grade class we observed, the teacher had [the students] working in groups to compose a theme and variations. Well, the variations. The theme was already composed. They were using Orff instruments to play the theme together, and then when they broke out into groups the kids were allowed to use different instruments…there were sticks, maracas, bells, those tubes, um, colored tubes that make a pitch when you smack them on the ground or your hand…

S: Boomwhackers?

R: [Laughs] Yes! Boomwhackers. Anyway, I was really impressed with the kids' technique on the Orff instruments, and also their knowledge of terminology. [Their teacher] reviewed different ways to write a variation before they split into groups, and the kids were able to use musical terminology like tempo, different dynamic words, articulations and stuff. I had no idea that fourth graders would be so advanced. Um, but then the best part I thought was that [their teacher] invited us to join in with one of the groups and talk to them about the variation they were composing. So we all, all of us observing split up and went to sit with different groups. The group I was with had already started talking when I walked over, so I was just listening at first, but then one of them said something like 'we need an extra person,' so I volunteered to play with them, and they seemed pretty receptive to that. One of them asked which part I wanted to play, but I said that they should just give me whichever one was left over. So they kind of decided amongst themselves, and then this tiny little girl turned to me and said 'you can play the ostinato.' She gave me her mallets, and showed me which notes—I think it was just a C and a G repeating. Um, but then they wanted to try a few parts all together, and one of them asked if I would start them off, so I just said like, 'one, two, ready, go.' It went on for a while, and it was really fascinating for me. Watching them negotiate what changes to make, or they would sometimes refer to the list on the board, and one would say something about changing the dynamics, or something. I mostly just listened and watched their interaction, but it was really fun to be included, and to help out, like with starting them in a steady tempo when they needed it.

The process of participating and interacting with students made this elementary observation more meaningful for Rebecca. By working with a small group, she became familiar with students' knowledge and understanding while also taking on the teacher role when students asked for help starting their variation together. Travis, a sophomore vocalist, was another participant whose interactions with students were particularly meaningful. Here, he describes the different roles he takes on when visiting a local middle school choir:

T: [I'm] never *just* observing. I sing with the kids sometimes, like if it's a 3-part song and they're really only used to 2-part things, I'll help out by singing along pretty loudly with one of the parts. I've also been helping with sectionals, though.

S: Have you ever had an experience where you truly felt like a teacher?

T: Oh yeah, definitely. Working with the middle school kids in sectionals, getting them away from their teacher, I feel like they listen to me a lot better, you know. Like they're not looking to her like "oh, that's our *real* teacher," but they ask me questions and stuff instead. But one time recently, I had worked with a group of girls on this one phrase where they had an "oooo" vowel, and they were singing it like "ewww," with a diphthong, which is totally wrong. So I had them repeat after me, the right way to pronounce it, and taught them a hand motion to go with it, which is something I learned from my high school director. When they went back and were singing that part with the full group, their director stopped on that same phrase, and started to correct the vowel. One of the girls I worked with raised her hand and said "[Mr. Undergrad] said to do it this way," and did the hand motion I showed them. Their teacher was like, "oh, that's a really good idea, let's all try it like that." It made me be like "woah" [laughs] something I did actually stuck with them! I guess I *can* really do this, you know?

Participating along with students, or taking on small teaching tasks allowed participants to explore students' experience while also trying on the teacher role in small increments. Travis enjoyed guiding students by "singing along pretty loudly" when they were learning new parts, while Rebecca noted that it was fun to help students with musical tasks such as beginning or playing together in a steady tempo. Participants that were given the chance to participate during field observations always perceived such experiences in a positive light, while perceptions of passive, non-participatory observations were more mixed. For participants such as Rebecca and Travis, helping students to improve or succeed musically also left a positive impression.

Conversely, participants whose field experiences were purely observational—lacking direction from a note taking protocol, not being privy to the teacher's lesson plan, or without invitation to participate—sometimes seemed frustrated. When asked about note taking during observations, Laura replied, "We didn't take notes, or like, have a lesson plan or anything. It was really just going into a classroom, watching a class from beginning to end, and leaving." When asked later if she could offer any words of advice to introductory music education course instructors, Laura said:

Laura
I think it's definitely important to go out and observe real music classes because that's how you become more familiar or more comfortable with what the job really entails. For me though, like the last time I was in a middle school choir class was when I was in middle school. I've *never* been in a band class, so having observations with no direction was frustrating. I think it would have been way better to have like, instruction ahead of time as far as what to watch for and then discussion about it after.

A lack of structure or guided purpose to field observations seemed to leave some participants frustrated, or with feelings of doubt regarding their potential for success in a similar classroom environment. Laura was one of several participants who indicated a desire for more direction during field observations, as well as for more connection or follow-up discussion following each visit. Many participants noted the significance not only of direction or purpose during observations, but also the importance of follow-up conversation with peers or a mentor.

Follow-up activities. As participants described their field experiences (predominately observation in K-12 classrooms), it became clear that the types of activities or conversations that followed each observation were as significant as the observations themselves. In particular, participants noted that it was helpful when field experiences were tied deliberately back to class material through discussion and/or mentoring.

Jenny
During the observations there were certain things that we were supposed to look for and take notes. Then usually in the next class, [music education professor] always made it a point to debrief in class after we had observed a teacher. That was definitely helpful because if the observation was really good, I wanted to talk about the things that happened, and if it wasn't good I always had a lot of questions. So I would say talking about it after, like as a class, was very beneficial.

As Jenny and others pointed out, a professor's effort to tie field observation experiences to class discussion helps to unpack issues that may have arisen in the K-12 classroom setting. Participants also noted that the opportunity to ask questions or discuss specific observations among a group of peers was particularly beneficial, bringing closure to the observation

experience.

When an observation was perceived as a negative experience, or left preservice teachers questioning their music teaching efficacy beliefs, they often expressed a desire for interaction or discussion that would help to make sense of their experience, as indicative in the excerpt below:

> *Allison*
> A: I would watch her [Mrs. Classroom teacher] struggle with this group of kids. Like, at any moment there could be one laying down, one is beating on their chair with a rhythm stick or something, one is like, trying to hit another kid…it was crazy. When we first met her [classroom teacher], she said that it was a challenging group and that some of the kids have aids with them in their regular classroom. But she never really explained why they [aids] don't come to music, and then I end up thinking like, 'woah, if it's this hard for her, there's no *way* I could handle that kind of situation.' I think that situation was really frustrating because we just observed the class, and then she had another class right after so we never really got to talk to her about it.
> S: What about with your classmates or professor? Did you ever talk about the observations after they took place?
> A: Um, not really. It was mostly just, you go and observe this teacher, and then class time is spent on other things…I think maybe talking about it could have been helpful, though.

Here, Allison shares some concerns that may have impacted her CME beliefs. Her statement of "if it's that hard for [experienced teacher], there's no *way* I could handle that kind of situation," signifies that she is questioning her own classroom management potential as a result of a challenging observation experience. Following this observation, Allison did not have the opportunity to discuss or ask questions about the situation, although she points out that a follow-up discussion might have been helpful.

Regardless of the type of observation experience, participants often indicated that a follow-up conversation through individual mentoring or the discussion of a K-12 observation with their introductory music education classmates was (or would be) helpful in solidifying their observation experience. Without the opportunity to discuss an observation, participants were often left with unanswered questions, which at times proved to be damaging to participants'

music teaching efficacy beliefs, or to their ability to see a particular classroom context as a possible career path.

Field Experience: A Metaphor

Metaphors are useful interpretive tools in qualitative research. Metaphors can serve a guiding or clarifying purpose, presenting findings in a manner that illustrates patterns and relationships in an interpretive manner (LeCompte & Schensul, 1999; Suter, 2012). Context, structure, and follow-up activities were areas identified by participants as significantly influential in terms of the impact of a field experience. Figure 6.01 depicts field experience as a rocket travelling through layers of "earth's atmosphere," each of which has the potential to shape the impact of the field experience. Participants identified the familiarity of the classroom context as influential in their perception. The next layer of atmosphere is the structure provided through note taking, following along with a lesson plan, participation in the lesson, or small teaching roles. Participants identified this type of guidance as having tempered their field experience, influencing the types of things they noticed and the impressions of the observed setting following the observation. The third layer of atmosphere was follow-up through discussion in class, with peers, and/or with a mentor. Many participants identified having an opportunity to discuss the observation as a crucial element in terms of the impact of field experience upon their music teaching efficacy beliefs, in particular, consideration of their own capacity for success in a similar environment. Follow-up discussions occurred with K-12 mentor teachers, in small groups, and as a full class. While mentor-mentee interactions did include conversation of elements other than field experience, each type of discussion had equal potential for allowing participants to debrief, ask and answer questions, and refine their thinking about the observed context.

In cases where the second or third layers of atmosphere were thin, or even missing, the impact of the field experience was directed by the lower levels of atmosphere, or elements that were present. For example, some participants cited a rushed follow-up conversation with a mentor teacher, due to teaching schedule. Brief or rushed follow-up conversations left participants with unanswered questions, and perceptions of the field experience context therefore became the most significant take-away. Others noted that their observation experience was completely passive (e.g., watching a K-12 class with no participation or note taking), lacked any opportunity for discussion, or was not tied back to course content. A rocket (field experience) making its journey through the layers of the atmosphere may also experience some degree of gravitational pull based upon preservice teachers' tendency to cling to classroom contexts similar to their own past experiences. Structure and guidance, as well as follow-up discussion play an important role in propelling the rocket into outer space, where the greatest impact is made.

Although not referenced by any participants in this study, familiar or traditional classroom contexts may also have a gravitational pull on certain participants' experiences. That is, if provided only with opportunities to observe classroom contexts similar to their own K-12 experience, or not challenged by guided observation and follow-up discussion, preservice music teachers may be stalled or pulled backward, failing to question, learn, or grow into a new classroom context.

Following the progression through layers of atmosphere, the rocket emerges into "outer space," where the impact(s) become apparent. As evidenced in the interview excerpts provided previously in this chapter, participants tended to attribute field observations to becoming more or less open to a particular classroom context or approach. That is, depending on their perception of the experience, participants were more or less likely to view themselves as a potential fit for a

particular type of classroom, teaching style, or pedagogical approach. This is directly tied to music teaching efficacy beliefs, as participants' ability to see themselves teaching in a particular context was also related to their music teaching efficacy beliefs, or potential for success.

Participants' perceptions of each layer of atmosphere had the potential to modify their thoughts regarding the activities taking place within a particular classroom, or even their viability for success teaching in a similar context. Further perceived impacts of field experience, including strengthening and weakening influences upon music teaching efficacy beliefs, are discussed further in this chapter, as well as in chapter 7.

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Figure 6.01. Field experience metaphor

Strengthened music teaching efficacy beliefs or commitment

Weakened music teaching efficacy beliefs or commitment

Open-minded to teaching context or approach

Closed-minded to teaching context or approach

Field Experience

Impact

Potential

Follow-up:
- Mentor
- Class discussion
- None

Structure:
- Directed (note-taking)
- Participatory
- Passive

Context:
- Fully familiar
- Somewhat familiar
- Unfamiliar

Qualitative Themes

Themeing of data (also known as thematic coding) is a process by which the researcher allows categories or large claims to emerge (Ezzy, 2002; Saldaña, 2009). Saldaña (2009) suggests that themeing may be especially helpful when analyzing a large quantity of interview data—a strategic choice on the part of the researcher to highlight trends that emerge across multiple participants' experiences. In a write-up of results, themes may then be utilized as an organized way to present findings, supported by data that serve as illustrative examples.

In the present study, several overarching themes were extracted regarding the experiences or characteristics identified as influencing a) the decision to pursue a music education degree, and b) music teaching efficacy beliefs. The following is a detailed explanation of three specific themes that emerged from participants' interviews.

1. Love of music and music performance experience influenced participants' desire to pursue a career in music education.
2. Personal Music Teaching Efficacy was influenced through teaching, observation, mentoring, and peer interaction.
3. Classroom Management Efficacy was influenced through observation and mentoring.

Theme 1: Past musical performance experience.   While not directly related to the major outcome variables, the ways in which participants described their past experiences and reasons for majoring in music education emerged as a nearly unanimous trend. In answer to the questions, "Can you describe your musical background and past teaching experiences?," or "What made you decide to major in music education?," most participants cited their love of music and performance background, as opposed to teaching or leadership experiences.

Travis
I've been interested in music and singing for basically my whole life.

Sarah
I played cello all the way through high school. Played in orchestra, and also played in a string quartet that my orchestra teacher started.

Maria

I just love music, love being in band. I want to keep doing music as a career, and I think teaching band is a good way for me to pursue that.

Chelsea

I had such a great experience being in orchestra in school, and had really good teachers. I wanted to give back, I guess. Create that same experience for my future students.

When prompted further, several participants identified music teachers or past mentors who had encouraged them to pursue a music education degree, and some identified past experiences working with peers or younger students in a teaching or leadership role. Without exception, however, participants first cited either their love of music or their performance background when asked to describe their reasons for pursuing a music education degree.

Themes 2 & 3: Impact on PMTE and CME beliefs. Participants identified several activities or experiences that influenced their PMTE and/or CME beliefs. Some experiences served to strengthen these beliefs, while other experiences caused participants to question or doubt their capabilities, having a weakening effect on PMTE or CME. Although the monikers "strengthen" and "weaken" as well as "positive" or "negative" were used to characterize and code this data, it should be noted that efficacy beliefs are not dichotomous, but instead should be conceived of as a continuum. In presenting this data, it is not my intent to claim that experiences perceived by participants as negative, or which caused questioning or weakening of PMTE or CME beliefs, had long term "negative" impacts, but rather to portray the variety of ways in which participants identified the fluctuation of PMTE and/or CME beliefs.

Theme 2: Personal music teaching efficacy. Interview data revealed that preservice music teachers' PMTE was influenced—both strengthened and weakened—through teaching, observation, mentoring, and peer interaction. This occurred through both curricular and non-curricular activities.

Teaching: Strengthened efficacy beliefs. Because the participants in this study were enrolled in introductory music education courses, the majority of their teaching experiences occurred through peer teaching assignments, or through non-curricular teaching (e.g., private lessons). Many participants shared the positive impact that a successful peer teaching experience had on their PMTE beliefs.

> *Daniel*
> D: I think peer teaching can be pretty intimidating, actually. You get up in front of the class knowing that everyone is kind of judging the success of your lesson. So, for me anyway, when I have a peer teaching lesson that goes well it makes me more confident that I could replicate that same success with real students. Not that it's exactly the same, but…
> S: What do you mean by 'goes well?'
> D: Everyone is really involved, there isn't any confusion as far as like, the progression or what comes next.

Following a peer teaching experience, Daniel's statement that he felt able to "replicate that same success with real students" signifies a positive change, or strengthening of his PMTE beliefs. Daniel was one of several participants to point out that a peer teaching experience served to strengthen PMTE beliefs, as success in peer teaching was perceived as having the potential to transfer into a K-12 context.

Non-curricular teaching experiences proved to have equal potential for strengthening PMTE beliefs. Here, Adam describes an experience conducting his church's children's choir:

> I don't even have a lot of experience or anything, but I just try to be patient and work through each thing methodically, and the results have been really good. That makes me feel like a teacher, like, 'ok, I think I can be pretty good at this.'

Adam's statement that he "can be pretty good at this" connotes that his PMTE beliefs were strengthened as a result of his church choir teaching experience. Citing a process of trial and error, Adam noted that he was able to reason through various approaches, implementing those

that seemed most likely to be successful. Achieving desired results (e.g., helping the choir to improve their musical performance) strengthened Adam's PMTE beliefs, shaping and reinforcing the notion that he is, and will continue to be a successful choir teacher.

Teaching: Weakened efficacy beliefs. Although an isolated instance in the present study, it seems that teaching experiences may also have a negative impact on PMTE beliefs. Sean shared a private lesson teaching experience that negatively influenced his music teaching efficacy.

> It was frustrating because I was supposed to be helping [my student] but no matter what I did, or even if I said like, 'let's do this and then we'll take a break,' he wasn't really having it. When I think about having a whole class full of kids like that, it's just…well it doesn't make me feel better about being a teacher, I'll say that. I question whether I could deliver instruction effectively to a full band of individual students if it's that challenging to keep just one interested and involved in what we're doing.

Participants' motivation for seeking teaching experience seemed to divide those who perceived their experience as strengthening or weakening their PMTE beliefs. For example, Adam took over his church children's choir because he had a desire for more teaching experience, while Sean chose to teach private lessons as an easy way to earn some income while in school full time. Although it is impossible to draw a conclusive line, it seems that a higher level of motivation or personal investment in the teaching process may lead to a more positive impact on PMTE beliefs.

Observation: Strengthened efficacy beliefs. Vicarious learning, or observation of others' teaching had a positive impact on many participants' PMTE beliefs.

> *Adam*
> I think it's always good to watch a good teacher, but what stuck with me the most was the student teacher. He did a really good job, that left an impact because he's not all that much older than me, not that much further along in the degree. It was kind of a confidence boost to see how good of a job he was doing teaching and thinking I can get to that point.

Adam had the unique opportunity to observe an in-service teacher, as well as a student teacher from his university. Because Adam viewed the student teacher as more of a peer, observing his success left an impression on Adam's PMTE beliefs. He cited a "confidence boost," and felt that he could achieve similar success in his own teaching.

Observation: Weakened efficacy beliefs. Although less common, observation sometimes negatively influenced participants' PMTE beliefs.

Larry
I just couldn't see myself doing as far as the way she was teaching and the activities she did with them. I think she was good at it, but I just don't think there's any way *I* would be good at it. Being with kids that young, and in that kind of classroom, it feels kind of fake for me, I guess, and I just felt really strongly that I wouldn't be successful, or wouldn't be a good teacher, at least not in that kind of setting.

As a result of this field observation, Larry stated that he didn't feel that he could be successful in that particular (elementary general music) teaching environment. Larry's assertion that he didn't "think there's any way *I* would be good at it" denotes weak PMTE beliefs in this area. In examining observation experiences, context seems to play a significant role in students' perceptions. Like Larry, some participants' PMTE beliefs were weakened following observations of a teacher or classroom context with whom they did not relate. Conversely, participants who observed classrooms in their primary area of interest were more likely to leave with a positive impression. As previously discussed, mentoring, class conversation, or connections between field experience and introductory course content also played a role in shaping participants' perceptions of K-12 observations.

Mentoring: Strengthened efficacy beliefs. Participants often noted that even when they were overly critical of their own teaching, mentors offered encouragement and feedback that had a positive impact on their PMTE beliefs.

Jenny
She also pointed out some positive things that I hadn't noticed. And she said the stuff I thought was bad…like looking down to check my lesson plan, and saying 'um' too much…that stuff was normal, and just watching myself and being aware of it would help me to correct it. And she was right. Her saying that my mistakes were ok made me feel a lot better, like, 'ok, if I just focus on these few things next time, my teaching will improve.'

As efficacy beliefs often have a future tendency, Jenny's statement that her "teaching will improve" provided she continue to focus on the areas discussed with her mentor signifies strengthened PMTE beliefs. For Jenny and several others, reassurance from a mentor helped to redirect some negative thoughts about her teaching abilities. Jenny's mentor helped to put a teaching experience into perspective, balancing positive feedback with constructive suggestions, which resulted in Jenny's more optimistic outlook and strengthened PMTE beliefs.

Mentoring: Weakened efficacy beliefs. In the case of participants who came into contact with jaded or pessimistic K-12 teacher mentors, mentoring sometimes had a negative influence on PMTE beliefs.

Daphne
When I talked to [mentor teacher] after my observation, she seemed pretty burnt out. I was asking about festival and whether her students do certain types of performances. She seemed to kind of dread the time or the work it took to do those things. Things like that…it doesn't make me want to be a teacher any less, but it does make me think about burnout and attrition. I'm not immune. I can be affected by those things as easily as anyone.

Many participants held a great deal of respect for he more experienced teachers they had contact with. Mentor teachers' words therefore held considerable stock with preservice teachers. This experience was eye-opening for Daphne, who noted that she began to realize that she could be affected by elements of teacher burnout that she had not previously considered. As a result of the attitude conveyed by her mentor teacher, Daphne began to question or doubt her own abilities and this experience therefore weakened her PMTE beliefs slightly. It should be noted, however,

that not all efficacy-weakening experiences were classified as negative. As in Daphne's case,

some experiences served as a reality check, shaping participants' beliefs regarding the nature of

K-12 teaching.

Peer interaction: Strengthened efficacy beliefs. For participants who had a peer

teaching assignment where they were asked to work as a group to plan and teach a lesson,

interaction and feedback during the planning process sometimes impacted PMTE beliefs.

> *Sarah*
> You would suggest an idea of how to teach a certain thing, and when the group ends up using your idea you feel pretty good that you were the one to think of it. It's validating, I guess…the planning process made me feel confident because I was in a group with some peers that I respect their musicianship, and so when they respect my ideas, it definitely makes me feel more confident

Here, Sarah describes interacting with a group of peers during the process of planning a lesson.

She notes that because she respects these individuals, it is a validating experience when they

show appreciation for her ideas. Sarah's statement that this peer interaction helps her to feel

"more confident" demonstrates that her PMTE beliefs were strengthened through this activity.

Peer interaction: Negative perception. Although not identified as having a direct

impact on music teaching efficacy beliefs, it is important to note that not all peer interactions

were perceived as positive. Travis described his perception of a group of overly critical peers

following a field observation.

> *Travis*
> It's like they don't really think they have anything to learn, and then all they do is criticize what they see when we talk about observations. And, I mean, I think some things we see are good, and some things aren't as good, but like, you're here to learn, and I feel like if all you do is criticize then you're not really going to learn anything….when that's all people are doing I think it's less productive.

In contrast to this group of peers, Travis pointed out that he tried to look more objectively at

observations in order to learn something from each experience. He was frustrated by peers who

lacked his perspective and felt that his interactions with persistently critical classmates were not a productive part of his introductory music education course.

Theme 3: Classroom management efficacy. Classroom management efficacy was impacted, both positively and negatively, through vicarious learning (observation) as well as through verbal persuasion (mentoring).

Observation: Strengthened efficacy beliefs. Participants who had weaker CME beliefs based upon past experiences were often encouraged through observation of a teacher who had a strong system of classroom management.

> *Kevin*
> He has a lot of things in place that like, keep them on track. Buddy checks, bows in the air, this thing when he's on or off the podium...so he's never yelling at them, and even the ones who you can tell don't completely love orchestra are like, paying attention most of the time. It makes me think, 'ok, middle school doesn't have to be a disaster.' When I think about *me* doing it, I'm still like, 'eehhhhhh,' [laughs], but seeing positive examples like that definitely helps.

Although his CME beliefs may still be on the weaker side, Kevin's statements that "middle school doesn't have to be a disaster," and that "seeing positive examples [of classroom management] definitely helps" indicates a shift in his thinking. Kevin was heartened by the positive example of middle school orchestra classroom management he witnessed during this observation. Kevin and others noted that seeing productive and effective models of classroom management helped to strengthen their own CME beliefs.

Observation: Weakened efficacy beliefs. Some participants observed a classroom situation that they perceived as ineffective in terms of classroom management. Often, these observations instilled a sense of doubt, or prompted participants to question their own classroom management abilities.

> *Serafina*
> We observed an elementary class, and it was just *so* [emphasis hers] different from what I

thought it would be. The teacher had to spend the majority of the class just keeping kids on track. I'm not saying she was a bad teacher, but there wasn't as much of a focus on music because of all the discipline that had to take place. I don't think I could ever be a teacher in a classroom like that.

Similar to the observation experiences that impacted PTE, the difference in these experiences seemed to be the extent to which they were mediated through mentoring or class discussion. Some participants observed what they perceived as a negative classroom management environment, but were able to spin it into a positive experience based on conversations that occurred following the observation. Others, like Serafina, ended up doubting their ability to function successfully in a classroom with discipline challenges. Serafina's assertion that she couldn't teach in a particular classroom due to the discipline challenges implies weaker CME beliefs as a result of this observation.

Mentoring: Strengthened efficacy beliefs. Some participants were encouraged by their mentors' encouragement or input regarding classroom management.

Chelsea
He kind of reassured me that you learn a lot about that really quickly when you start being in classrooms more. And he also said that he sees my personality as being pretty easy for kids to like, get along with and respect. He knows me really well, so that made me feel better about some of my concerns.

Although most participants were observing, rather than teaching in K-12 classrooms, classroom management was still a concern. Chelsea noted that it was helpful to have a mentor's perspective regarding her potential for developing effective classroom management skills. Chelsea stated that her mentor's reassurance helped her to "feel better" about her potential for developing strong classroom management skills. Her CME beliefs--beliefs in her ability to effectively manage a music classroom—were strengthened as a result of this mentoring interaction.

Mentoring: Weakened efficacy beliefs. Other participants had less positive mentor interactions related to classroom management. These experiences tended to result in a negative

influence on CME beliefs.

> *Patrick*
> We did have a chance to talk to him after the observation, but he was really rushed. I think there was another class that he had to get to. But it didn't really give us a chance to have a helpful conversation. And especially with a middle school class where student behavior is challenging, I had a lot of unanswered questions about how he handles everything. I would have been interested to hear suggestions about what we should work on in order to be successful in that type of situation.

Patrick indicated a lack of time or mentor engagement as having left him with "unanswered questions" about a challenging classroom management situation. He noted that suggestions from his mentor teacher regarding things to work on in order to be successful in managing student behavior would have been helpful. This experience caused Patrick to wonder whether or not he could be successful in a similar environment, introducing doubt, and potentially weakening his CME beliefs.

Drawing upon the qualities that participants cited as necessary for positive mentoring relationships, it seems that time, mentor desire, and helpfulness also played a role in the impact of mentoring upon CME beliefs. Participants that perceived their mentors as encouraging, knowledgeable, and committed to helping were more likely to cite mentoring relationships as beneficial in the process of building stronger CME beliefs. Inversely, those who perceived mentors as less invested or helpful were often left to question or doubt their own potential for effective classroom management.

Summary of Strand II Results

Participants identified sufficient time, as well as both mentor and mentee desire as crucial conditions for the facilitation of a productive and beneficial mentoring relationship. Effective mentors were perceived to be caring, helpful in sharing knowledge, and able to provide individualized attention or feedback to mentees. Like mentoring relationships, participants also

identified a variety of qualities impacting their experience with K-12 observations. The structure or purpose of field experience (e.g., guided note-taking, participation, passive observation), familiarity of setting, and whether or not any follow-up discussion occurred each played a role in participants' perceptions of field experiences.

Additional qualitative themes encompassed the activities and experiences perceived by participants to be influential to their music teaching efficacy beliefs. Both personal music teaching efficacy and classroom management efficacy were influenced through observation and mentoring, while personal music teaching efficacy was also impacted through peer interaction and teaching experience.

Chapter VII

Mixed Methods Results

Chapter Overview

As is the case within a sequential explanatory mixed methods design (Creswell & Plano-Clark, 2011), the results in this chapter are presented according to explanations of significant Strand I findings through comparison of Strand I and Strand II data. This includes triangulation between quantitative and qualitative data, as well as explanations of statistically significant relationships: principal components analysis of music teaching efficacy belief data, and group differences in music teaching efficacy beliefs. Both confirmatory cases and negative case analysis are discussed. Following discussion of triangulation, more detailed mixed methods findings are presented, including activities perceived by participants as influencing music teaching efficacy beliefs and commitment, nuances of curricular and non-curricular mentoring relationships, and perceived associations between music teaching efficacy and commitment.

Triangulation

The purpose of corroboration is to ensure that research findings accurately represent participants' perceptions. This is not to suggest that findings have a dichotomous right/wrong or true/false quality, but instead to provide assurance that valid and reliable measures have been utilized to appropriately represent participants' individual truths. Triangulation helps to increase credibility of results, as well as verifying emergent findings across multiple strands of a mixed methods study (Greene, et al., 1989; Miles & Huberman, 1994). Triangulation is a corroboration technique, the goal of which is to uncover consistencies and/or inconsistencies in findings across multiple sources, investigators, or methods of inquiry. Methodological triangulation involves

comparison of data across two or more data collection methods (e.g., Strand I questionnaire, Strand II interview) (Denzin, 1984).

Given that a mixed methods design was used for this study, and the Strand II sample was nested within the Strand I sample, multiple types of data were collected from interview participants. For these reasons, I engaged in methodological triangulation when analyzing Strand I and Strand II data, which included comparing quantitative and qualitative results.

Strand I → Strand II: Triangulation

Personal music teaching efficacy and classroom management efficacy: Components analysis. Statistical analysis of Strand I data revealed that participants' music teaching efficacy beliefs separated into two components: Personal Music Teaching Efficacy beliefs (PTE) and Classroom Management Efficacy beliefs (CME). Qualitative analysis similarly demonstrated that preservice music teachers conceptualize of confidence in their music teaching skills (PTE beliefs) somewhat differently from confidence in their classroom management skills (CME beliefs), and may therefore hold different levels of efficacy beliefs about each.

> *Kevin*
> The actual teaching side of things makes me less nervous than the classroom management side, kids' behavior, and all that.
>
> *Jenny*
> Based on my experience with kids, I feel like I can maintain control of the rehearsal pretty well. It's more the musical things—how best to teach one specific concept— that I'm really focusing on improving now.
>
> *Sean*
> Being able to communicate with kids and break things down to teach them, and then also having the patience you need to be a good teacher…I don't really…those aren't my strengths.

As evidenced in these participant statements, preservice music teachers conceived of teaching skills separately from the classroom management duties of teaching music. In addition

to this distinction, some participants identified stronger efficacy beliefs for either classroom management or music teaching, as opposed to identical efficacy beliefs in both areas. Kevin specifically refers to the "actual teaching side" as opposed to the "classroom management side." Jenny notes that she feels more confident in managing a classroom than in her pedagogical abilities, while even Sean, who lacks efficacy in both realms, differentiates between communication and "break[ing] things down," and having patience.

This finding corroborates the results of Strand I principal components analysis: participants' music teaching efficacy beliefs separated into two components. Although correlated, PMTE and CME beliefs are distinct, latent facets of music teaching efficacy beliefs. Because of the relationship (correlation of $r = .70$) between these facets, as described in chapter 4, the two components were utilized both together and separately for the analysis of Strand I and Strand II data. PMTE and CME refer to personal teaching and classroom management efficacy beliefs respectively, while the term "music teaching efficacy beliefs" refers to the composite.

Group differences in music teaching efficacy beliefs.   Strand I analysis of music teaching efficacy beliefs revealed that freshmen held slightly (although significantly) weaker music teaching efficacy beliefs than sophomores or juniors enrolled in introductory music education courses (ANOVA, $p<.001$). Interview data suggests that this difference may be due to time in college, or distance from the role of being a high school student, becoming more acclimated to the college student or music teacher role.

Alyssa (freshman)
I've never really *felt* like a teacher. I've only been…It's only my first year, though, so most of those experiences are ahead of me.

José (freshman)
S: Can you tell me about a time that you really felt like a teacher?

J: I don't think I've had any experiences like that. I feel like I'm just starting to figure out the student thing [laughs]. I'm looking forward to having opportunities to practice teaching, though.

Freshmen Alyssa and José both note that opportunities to practice teaching, or assume the role of teacher lie ahead of them. Alyssa states that this is "only" her first year, while José mentions that he is looking forward to having more opportunities to practice teaching as he continues in his music teacher education program.

In contrast, older participants tended to reference experiences since enrolling in college that had contributed to their music teaching efficacy beliefs.

Travis (sophomore)
It's the experiences that I've had since being [at my university] that have boosted my confidence the most.

Rebecca (sophomore)
I feel like, the more distance I have, the more it seems like I might be successful at teaching that level. Like at first, I was thinking only elementary or middle school, but lately I've started being interested in high school.

Travis, a sophomore, cites experiences in his first two years of college as contributing to his music teaching efficacy beliefs. Rebecca, also a sophomore, cites the maturity or distance from younger K-12 students as a reason for her growing or changing music teaching efficacy beliefs. Strand II qualitative data helped to refine the Strand I finding of differing strengths of music teaching efficacy beliefs across year in degree program. Freshman participants more often presented a hopeful or anticipatory tone while noting a lack of experience. Older students, instead, referred to collegiate experiences as having contributed to their music teaching efficacy beliefs.

Outcome variables: Confirmatory cases. Following completion of the PMTES in Strand I, students were grouped into strata based upon major outcome variables: Personal Music Teaching Efficacy beliefs (PTE), Classroom Management Efficacy beliefs (CME), and

Commitment to music teaching. In order to corroborate Strand I findings, and to form Strand II

sampling strata, I engaged in triangulation regarding participants' beliefs in each of these three

areas (full explanation of Strand II sampling procedures can be found in chapter 5).

Students were asked a series of interview questions intended to gauge their PMTE and

CME beliefs, as well as their commitment to teach music. The following are interview excerpts

from students in three different strata.

> *Carolyn*
> C: I think that I'm very well-suited to teach music as a career. I've been involved in
> music my whole life, and especially in high school I feel like I was really lucky to get a
> lot of teaching or…maybe not teaching but leadership experience? That allowed me to
> kind of see the teacher side of music a little more and I really fell in love with it. And
> then in the past year or so, getting to observe and actually teach a little bit…yeah. I'm
> really, really sure that I want to teach, I *can* [emphasis hers] be a good teacher…all of
> that.
> S: Is there anything about teaching music that you're not so sure of?
> C: Not about teaching music, no. I…well I wouldn't say that I'm like, the best at pacing
> my lessons and keeping everyone completely focused on track. That's something I really
> need to work on, especially because I think I might want to teach middle school and with
> middle school it's *so* important to be kind of like a wizard at classroom management.

Based on analysis of her PMTES responses, Carolyn was grouped into the strong PMTE

beliefs, weak CME beliefs, strong commitment stratum. As evidenced by her interview, Carolyn

is certain that she wants to spend her career teaching music. Not only that, but she feels that

based upon her past experiences, she is "well-suited" to teach. Of particular importance is her

statement that she is a) sure she wants to teach, and b) sure that she *can* be a good teacher. This

confirms Carolyn's strong PMTE beliefs and commitment. In her last statement, however,

Carolyn indicates that she is less sure of her classroom management abilities. She cites that these

skills are especially important at the middle school level, and that she needs to "work on"

improving in this area. This statement corroborates Carolyn's weaker CME beliefs, and further

confirms that she was accurately placed in the appropriate strata.

Following Strand I, Terrence was sorted into the strong PMTE beliefs, weak CME

beliefs, weak commitment strata.

> *Terrence*
> I guess I would say I've had some experiences that make me feel that I would be a
> successful teacher. When I've worked with kids, like in a private lesson situation, or even
> with my same-age peers, I do feel like I can be helpful or effective as far as like, helping
> them to improve musically? But as far as teaching as a career, big picture…I'm not
> completely sure that it's exactly what I want. I'm not sure I can see myself like, being
> energetic and positive and dealing with everything that happens in a classroom full of
> kids every day.

In his statement above, Terrence shares that he feels that he could be a successful music teacher.

However, he indicates that he is less sure of the "big picture" of music teaching as a career, and

brings up a lack of confidence in his classroom management abilities as a reason for his

uncertainty. These statements verify that Terrence has strong PMTE beliefs, but relatively

weaker CME beliefs and commitment to teaching.

Sean's PMTES data demonstrated that he had weak PMTE and CME beliefs, as well as

weak commitment to music teaching. Here, he shares that he sees himself as a composer, is

confident in his composition abilities, and finds composition to be rewarding.

> *Sean*
> S: I will probably not end up teaching. I'm really passionate about music, but I see myself
> more as a composer. When I sit down at the piano to write, or when I have a project that
> I'm in the middle of writing, I get to this really focused place, and that's what I would
> really see myself doing long term.
> SP: You said that you see yourself as a composer. I'm reading between the lines here, so
> please correct me if I'm wrong, but does that mean that you don't see yourself as a
> teacher?
> S: As far as teaching, I don't think I'm cut out for it…definitely not like some other
> people are, really. But um, being able to communicate with kids and break things down to
> teach them, and then also having the patience you need to be a good teacher…I don't
> really…those aren't my strengths.

Sean states that he will likely not become a music teacher, and shares that he feels he is "not cut

out for it." Sean goes on to cite that communication and patience are not strengths for him,

confirming that he was placed in the correct stratum based upon his relatively weak PMTE and CME beliefs, as well as his lack of commitment to become a teacher.

Outcome variables: Negative case analysis. While the majority of participants' interviews revealed that they were correctly placed into a particular stratum, there were some cases in which interview data raised a question regarding a participant's beliefs in a particular area.

Daphne, a freshman violinist, had demonstrated weak PMTE beliefs on the PMTES. When asked about her confidence in her ability to teach music during a follow-up interview, however, Daphne stated that she was "pretty confident" that she would be a good teacher, and noted that she was "definitely getting better" at things like lesson planning and identifying effective teaching strategies. When asked whether her teaching confidence had changed over the past several months, Daphne answered,

Daphne
Oh definitely. I think it kind of grows over time. Like, at first you want to teach because of your past or whatever, but you're not really sure how, I guess? But the more you learn, the more you become confident that you can do it.

For Daphne, it appears that time and experience are important factors in developing music teaching efficacy. By stating "the more you know, the more you become confident," Daphne demonstrated that her efficacy beliefs are developing, and that she anticipates becoming more confident in her teaching abilities as she continues in her music teacher education program.

Serafina, a sophomore flutist, also demonstrated weak PMTE beliefs on the PMTES. Like Daphne, however, she indicated more teaching confidence in her interview, stating, "I'm pretty sure I will be good at [teaching music], actually. I feel like I have a lot of the right personality type to be a good teacher." When asked how or why she felt that she would be a successful teacher, Serafina referred to interactions with a mentor teacher she had recently begun

working with. Serafina hadn't experienced individual mentoring as a part of her introductory music education course, but a few months later was working regularly with an elementary band teacher in her area. She cited conversations and specifically, encouragement from this mentor teacher as reasons for her growing confidence.

Upon engaging in negative case analysis, it appears that some participants indicated weaker music teaching efficacy beliefs on the quantitative measure (PMTES), but were able to describe their confidence in a more nuanced or evolving manner when interviewed. For these participants, time, experience, and influence of new mentors emerged as elements that perhaps strengthened music teaching efficacy beliefs.

There were no instances of a participant with strong PMTE or CME beliefs who indicated any doubt or less confidence in their interview. Similarly, there were no instances of disagreement in participants' commitment to teach music. Those who indicated less commitment on the PMTES stated less commitment in their interview, and the same was true with participants who were more committed. With few exceptions therefore, Strand II findings confirmed Strand I measure validity, uncovering similar music teaching efficacy beliefs for participants on both quantitative (PMTES) and qualitative (interview) measures.

Preservice Music Teachers' Perceptions: Activities Influencing Music Teaching Efficacy and Commitment to Music Teaching

One of the primary reasons for conducting Strand II interviews was to extend Strand I findings by providing explanations and therefore, nuance regarding specific activities or experiences that preservice music teachers identified as influential in the development of their music teaching efficacy beliefs or commitment to music teaching. Strand I data analysis facilitated the identification of several activities or experiences that had a statistical relationship

with participants' music teaching efficacy beliefs or commitment. Strand II analysis then served an explanatory function in extending and refining understanding of the relationship between various course (or non-curricular) experiences and major outcome variables (PTE beliefs, CME beliefs, and commitment) as perceived by study participants.

Figure 7.01 is a causal network (Miles & Huberman, 1994) demonstrating the relationship between the three major outcome variables (PTE beliefs, CME beliefs, commitment), as well as the ways in which participants indicated that these constructs were impacted. This figure should be read from the outer edges, inward, beginning with the triangles. Triangles indicate curricular or non-curricular activities, rectangles denote the actual activity or experience, and the large circles represent the three major outcome variables. Turquoise lines represent a strengthening impact, while orange and dark blue lines represent weakening or no impact (on major outcome variables), respectively. These relationships are explained in greater detail and supported through the presentation data in the sections that follow.

Figure 7.01. Causal network depicting the ways in which Classroom Management Efficacy, Personal Music Teaching Efficacy, and Commitment beliefs were impacted

Interview data revealed that participants' music teaching efficacy beliefs were impacted by experiences that occurred both prior to the introductory music education course, as well as during the course. These experiences were curricular and non-curricular (occurring outside introductory music education course requirements), musical and nonmusical (e.g., teaching in an area outside of music). Although influenced by fewer elements, participants reported mentoring relationships as impacting their commitment to music teaching Table 7.01 and 7.02 list activities perceived by participants as influencing music teaching efficacy beliefs (7.01) or commitment to music teaching (7.02) as well as the number of participants identifying a positive (strengthening) or negative (weakening) influence.

Table 7.01: Activities and experiences perceived by participants as influencing music teaching efficacy beliefs (PMTE, CME, or both) (+ = strengthening influence; - = weakening influence)

Activity / Experience	Number reporting +	Number reporting -
Course content	4	0
Peer teaching (peer interaction)	7	1
Peer teaching (teaching a lesson)	12	4
K-12 Observation	13	9
Past teaching experience	7	0
Non-music teaching experience	1	0
Mentoring (curricular)	9	3
Mentoring (non-curricular)	5	0

Table 7.02: Activities and experiences perceived by participants as influencing commitment to music teaching (+ = strengthening influence; x = no influence)

Activity / Experience	Number reporting +	Number reporting x
Mentoring (curricular)	6	2
Mentoring (non-curricular)	6	0

Music teaching efficacy beliefs: Course content.   Though rarely the most influential element, some participants identified course content, discussions, and readings as an important factor in their development of music teaching efficacy. A freshman trombonist, Maria, noted,

Maria
That's why we're [in a music teacher education program], right? One of the reasons at least. I think it's important to have knowledgeable professors who give you information or resources, or whatever information it is to become a better teacher. I don't think it's the *most* [emphasis hers] important thing, but how would you become confident in front of kids without learning everything else?"

Although she acknowledges that course material may not be the most important aspect of her music teacher education program, Maria was one of four interviewees who cited coursework experience, including knowledgeable professors, new information or ideas, and resources as helpful in the development of PMTE beliefs. This finding was uncovered in Strand II only, as course content was not a measurable variable during Strand I.

Music teaching efficacy beliefs: Peer teaching. Strand I analysis revealed that peer teaching had a significant effect on PMTE beliefs ($p<.001$; $d = .93$). Strand II analysis highlighted two distinct ways in which participants identified peer teaching as influencing their PMTE beliefs. José was one of seven participants who cited the peer interaction that occurred through a group peer teaching project as helpful for validating his already strong PMTE beliefs.

José
I respect them, their ideas and everything. So when they say to me like, 'hey, let's use that idea,' or 'let's try it that way,' and it's something I suggested, that makes me feel confident that it was a good approach.

It is important to note that while José is referring to a peer teaching experience, it was actually interaction with his peers during the planning process that validated his PMTE beliefs. Other participants noted that the execution of a lesson plan and perception of positive results was the most confidence-inspiring aspect of peer teaching.

Sarah
The way we had planned the lesson, and structured the teaching of it, it went well. There weren't any awkward moments where people didn't know what to do, and everyone like, accomplished our objective.

Sarah, along with eleven other participants, went on to indicate that the success she perceived in peer teaching would likely translate to a K-12 environment, stating that the opportunity to practice certain approaches had increased her confidence regarding their viability in the "real world." This statement is evidence of Sarah's strengthened PMTE beliefs as a result of peer teaching, and corroborates the Strand I finding that peer teaching had a significant effect upon PMTE beliefs.

Music teaching efficacy beliefs: K-12 observation. Strand I analysis revealed that K-12 observation had a significant effect on both PMTE ($p<.001$; $d = .78$) and CME ($p<.001$; $d = .93$) beliefs. This finding was corroborated through analysis of Strand II interview data.

Although her music teaching efficacy beliefs were generally weak, Meghan noted that observing in K-12 classrooms was beneficial, particularly in the area of classroom management.

Meghan
When we would observe someone who had a really good…really effective approach to classroom management type things, it kind of makes me more hopeful. You learn a possible approach by watching that teacher, and, for me anyway, it makes me kind want to be like them, do what they're doing.

Meghan's statement that observing a skilled teacher helped her to feel "more hopeful" about classroom management indicates a strengthening impact on her CME beliefs.

Daphne alluded to an increase in her confidence as a result of observing in a middle school orchestra, stating,

Daphne
The kids played really well…[K-12 teacher] modeled for them a lot which was helpful to see. I think part of the reason they play so well is because of her modeling, and that's definitely something I could do.

Daphne's statement that she could "definitely" replicate the K-12 teacher's modeling approach—a technique which she perceived to be influential in building students' musicianship—

demonstrates the strengthening influence of this observation experience upon Daphne's PMTE beliefs.

In fewer instances, K-12 observation was also identified as having a weakening influence on some participants' music teaching efficacy beliefs. These participants were statistical outliers, as Strand I analysis revealed a significant (positive) effect of K-12 observation upon music teaching efficacy beliefs. Strand II analysis, however, revealed some nuance in this relationship, particularly for participants who had perceived their K-12 observation as a negative or less productive experience. Rebecca, a sophomore clarinetist shared that although she had previously thought she would be successful as a middle school band teacher, a negative observation experience was damaging to her PMTE beliefs.

> *Rebecca*
> [The students] played out of a really basic method book the whole time. It wasn't real music. And I've heard that [K-12 teacher] is really good. That experience made me question…maybe I couldn't make as much of a difference as I thought at the middle school level.

Rebecca's perception that she perhaps, "couldn't make as much of a difference" as she previously thought, indicates a weakening in her PMTE beliefs following this observation. It is also important to note that Rebecca's observation experience was not mediated by note taking or follow-up class discussion. As discussed in chapter 6, in instances where curricularly-required K-12 observation had a positive impact on participants' music teaching efficacy beliefs (PTE or CME), observations were almost always mediated by follow-up class or mentor discussion. Furthermore, context and purpose/direction of an observation played a significant role in the impact that field observations had upon participants' music teaching efficacy beliefs. Figure 6.01 (presented in chapter 6) depicts the conditions influencing participants' perceptions of field experiences, as well as the possible impact of those experiences. Strengthening or weakening of

PMTE or CME beliefs was dependent upon the presence, absence, or quality of context,

purpose/direction, and follow-up activities.

Music teaching efficacy beliefs: Past teaching experience. Daniel, a freshman

percussionist, was one of seven participants who cited past teaching opportunities as having

strengthened his music teaching efficacy beliefs.

> *Daniel*
> I went to a really small school, really small program, but I had a great relationship with
> my band director and he always gave me opportunities, either to work with a sectional, or
> sometimes to help him out with younger middle school kids. I guess you could say that
> kind of gave me the teaching bug because I felt like I was pretty good at relating to
> whoever I was helping out, and it just got better from there.

Daniel identified his past experiences with sectional leadership and working with younger band

students as influential in the development of his music teaching efficacy beliefs. This could be

interpreted as strengthening his PMTE beliefs, as he references success in working with younger

students. Daniel's statement that he was "pretty good at relating to" the individuals he worked

with also suggests a relationship with his CME beliefs. This is an example of a participant

identifying past music teaching experience as influential in the development of music teaching

efficacy beliefs.

Music teaching efficacy beliefs: Non-music teaching experience. Kevin was the

only participant to share a non-music teaching experience that he identified as influential in the

development of his music teaching efficacy beliefs.

> I work for a tutoring company, just as a part time thing to make some money while I'm in
> school. I work with kids who need help in math, mostly, but I would actually say that that
> kind of teaching strengthens like, my belief that I can be a good teacher. You have to
> really focus on what the kid does and doesn't understand, and then how to break stuff
> down so that they do understand. And even though it's not music, being successful in that
> kind of situation makes me confident in my ability to teach music, too because all
> teaching really breaks down into those similar skills.

Within the context of an academic tutoring job, Kevin identified helping students understand

academic material as influential in strengthening his PMTE beliefs. He noted that his confidence

increased because he felt successful with certain skills that he believed were applicable in all

types of teaching.

Music teaching efficacy beliefs: Curricular mentoring.   Participants identified

both strengthening and weakening influences of mentoring upon music teaching efficacy beliefs,

although strengthening influences (9) outnumbered weakening influences (3) significantly.

Rebecca was one of the three participants who identified elements of her mentoring relationship

as having weakened her PMTE beliefs.

> *Rebecca*
> [Mentor teacher] said something like 'if you want to make real music, don't teach middle
> school,' and that stuck with me because even though it's just one person's opinion, he has
> a lot of experience. It made me consider that, it may be that I couldn't do the kind of
> music or make the kind of progress I thought in middle school.

Rebecca identified this interaction with her mentor teacher as instilling doubt regarding her

success in creating "real music" in a middle school band. The idea that she possibly wouldn't be

able to make a musical difference in a middle school teaching context indicates a weakening

influence on her PMTE beliefs.

Inversely, many participants identified elements of their mentoring relationships that they

had perceived as having strengthened their music teaching efficacy beliefs. Mark was one of nine

participants to point out aspects of his mentoring relationship that influenced both PMTE and

CME beliefs.

> *Mark*
> [Mentor] is willing to kind of talk through whatever issues I bring up. If it's a specific
> area like jazz, he might suggest a book to get or read, but if it's something related to
> students or discipline, he usually has a story from his own teaching. And like I said, he
> gives advice based on his own experience, which is helpful because he has a ton of
> experience, but he's also a really good teacher. …No matter what the topic is, it helps to

refine my thinking and like, usually gives me the idea or the confidence to try something new or different.

Here, Mark references the ways in which his mentoring relationship has shaped his PMTE and CME beliefs. He addresses pedagogical ("a specific area like jazz") and classroom management ("students or discipline") topics, and notes that his mentor's advice provides him with both ideas and confidence, strengthening his PMTE and CME beliefs. These findings corroborate the Strand I finding of a significant effect of mentoring relationships on PMTE and CME beliefs.

Music teaching efficacy beliefs: Non-curricular mentoring. The impacts of curricularly-required mentoring were uncovered in Strand I and corroborated through Strand II analysis. During Strand II, however, non-curricular (or informal) mentoring relationships were also identified as a positive influence on participants PMTE and CME beliefs.

Neither Travis nor Maria experienced mentoring as a part of their introductory music education course. Each participant had instead sought out a K-12 teacher mentor (Travis) or maintained contact with a significant past teacher mentor (Maria).

> *Travis*
> [Mentor teacher] gives really good, like relevant advice, and suggestions for things to work on…those conversations help me to know what to work on to improve my teaching.

> *Maria*
> [Mentor teacher] just kind of reassures me that it's time and experience that have helped him to be good at managing all the behavior and nonmusical things.

Travis points out that his mentor helped him to identify areas to work on in order to improve his teaching. The notion of working toward improvement conveys strong PMTE beliefs. Travis believes in his abilities to grow as an effective music teacher. Maria cites "reassurance" from her mentor teacher regarding the development of classroom management skills. Her classification of her mentoring relationship as reassuring in this area suggests a strengthening influence on her CME beliefs.

Whether due to the non-curricular (not required as a part of the introductory music education course) nature of these mentoring relationships, or to the interactions themselves, participants such as Travis and Maria identified only positive influences of their respective mentoring relationships upon their music teaching efficacy beliefs.

Commitment: Mentoring.   While some participants described curricular mentoring experiences that had no impact on their commitment to become a music teacher, others cited influential individuals or specific conversations that strengthened their commitment to teaching music. Travis noted that interactions with his mentor strengthened and confirmed his commitment to becoming a music teacher.

> *Travis*
> It's her personality, I think, and also her manner with her students. You know how I was saying before, a part of the reason I wanted to become a teacher was that I didn't really have a great experience in choir at my school? But she [mentor teacher] is always sharing different ways that she gets the kids involved and really excited about the music. Every time I'm there [at her school], I think, '*this* is what I want to do, *this* is what I want my classroom to be like.'

Travis contrasts his mentor teacher's classroom with his own K-12 experience, expressing a desire to recreate more of the latter in his own teaching. For Travis, it was a combination of encouragement and a desire to emulate his mentor that strengthened his commitment to music teaching.

Similarly, Adam described his mentor's influence on his commitment to teach music.

> *Adam*
> [Mentor teacher] seriously gets amazing results from those [choir] kids. And then when I ask questions about how she accomplishes certain things, she just explains it in a really straightforward manner. And I do think it strengthens my conviction that this is really what I'm meant to do.

Both Adam and Travis cited interactions with their mentor teacher as having significant impact on their commitment to music teaching. In particular, participants noted that seeing and

discussing the potential for positive interaction or a high level of student achievement within a

K-12 music classroom strengthened their commitment to teaching music.

Commitment: Other influences.   In addition to variables identified through Strand I

analysis, interviews revealed a few other elements impacting their commitment to teach music.

Very committed, past positive experiences in K-12 music.   John shared that his past

experiences had shaped his commitment to teaching music.

> *John*
> J: I just know that this is what I want to do. I'm not saying I'm definitely good at it yet,
> but I'm definitely still sure that this is what I want to do.
> S: What makes you so sure that you want to teach music?
> J: Just having a really great experience in music all through school, I think. I loved being
> in band, the musical aspects of it and also the social side and everything else that goes
> along with it. I had good examples of teachers all growing up. And music is basically my
> whole life. What better way to put that to use than to pass it on to students?

John was a participant who had not yet had much teaching or observation experience in his

music teacher education program. He instead identified his own K-12 experience as a primary

reason for his commitment to become a music teacher.

Less committed, lack of control over choice of music education.   Gareth, a violinist

with a passion for performance, stated that his lack of commitment to teaching music was due to

a lack of autonomy in selecting his major.

> *Gareth*
> To be honest, choosing this major [music education] was mostly a result of my parents'
> suggestions that I needed to have a degree that would allow me to get a job. Ideally, I
> would like to perform professionally. I will probably always have a private studio, and I
> could see myself teaching at the college level some day, but not really middle school,
> high school.

Gareth was an outlier in terms of his reason for majoring in music education. It seemed that for

Gareth, a lack of autonomy in selecting his major was linked to his lack of commitment to

becoming a music teacher.

Less committed, alternative career viability. Like Gareth, some other participants identified a lack of commitment to teaching music due to their interest in pursuing a different career. Sean stated, "I see myself more as a composer," while both Gareth and Laura indicated that they felt more committed to teaching in a private studio or collegiate setting than in a K-12 music classroom.

Mentoring & Personal Music Teaching Efficacy Beliefs: Nuances Highlighted Through Strand II Analysis

As noted above, as well as in chapter 6, in the explanation of participants' characterization of mentoring experiences, mentoring relationships are highly nuanced, and vary on an individual basis. The overarching trend regarding mentoring, however, is that preservice music teachers perceive individualized attention as positive, and often crave the type of feedback or insight that comes from a mentoring relationship. Participants whose formal (curricular) mentoring relationships included a balance of appropriate time, investment, and helpful knowledge tended to have higher music teaching efficacy beliefs than participants who had less positive mentoring relationships or no mentoring at all.

There were, however, four participants who demonstrated strong PMTE beliefs, but did not receive any formal mentoring as a part of their introductory music education course. Quantitatively, these participants were outliers. Mentoring had a statistically significant effect on PMTE and CME beliefs, and these participants had not experienced mentoring as a part of their introductory music education course. However, Strand II interviews uncovered a significant trend. Without exception, these students had sought out or maintained contact with an "informal" (non-curricular) music education mentor.

Allison

S: Did you have any one-on-one mentoring as a part of your introductory music education course?

A: Nope. At [university] I know you work one-on-one with a mentor teacher and like, a university professor when you do student teaching. I don't think it happens before that, though.

S: Is there anyone that you might consider a music education mentor?

A: Well actually, my horn professor here, she knows I'm a music ed major, and she talks to me about teaching a lot.

S: Oh, really? What types of things do you talk about with her?

A: It's mostly stuff that would apply to private horn lesson teaching, I think. But if I'm having a hard time with something, instead of telling me what to do, she sometimes asks, 'if you were me, and your student was having that same problem, what would you do?' And then if I can't think of a strategy or whatever, she'll make a suggestion, and she always explains her thought process. I never had a teacher do that before and I think it's really great because I think she's such a good teacher. It's really beneficial for me to understand her…her thought process in teaching, I guess. She even said when I start doing more student teaching type stuff we can talk about different approaches to that kind of situation, too. I think her husband teaches band so she probably is more aware of that kind of thing than other studio teachers.

Travis

S: Did you have any one-on-one mentoring as a part of your introductory music education course?

T: No, not really.

S: S: Is there anyone that you might consider a music education mentor?

T: This isn't a university professor, but I've been working with a middle school choir teacher who teaches nearby.

S: Oh, is that a part of a course requirement?

T: No, I just…she's actually a friend of my church choir director, and she needed help with a theatre production. That's how I started going there. But I really liked her, and the kids and everything, so I kept going back once a week or so, whenever my schedule allows.

S: And would you consider her a mentor?

T: Oh definitely. She's *such* a good teacher. Her choir program is huge. I actually never thought middle school choir could be like that. But she has like five different choirs and they do a musical in the spring and everything. She has me sing with the kids, or sometimes has me help with warmups or sectionals or whatever. The first time she had me do that, it was just spur of the moment and I think she could tell that I was kind of nervous about it. Afterwards we talked about how it went and what I could do differently next time. After that, we kind of got into a rhythm of, every time I do any teaching we always talk about how it went and she gives some suggestions for me to think about or try out next time.

Although they did not have any individual mentoring experience as a part of their introductory music education course, both Allison and Travis were examples of participants who had taken advantage of an opportunity to work closely with a music education mentor. While the individual mentors varied greatly (past K-12 teacher, local K-12 teacher, applied studio professor), the qualities perceived by each participant were largely the same as those perceived by participants who had experienced positive, formal (curricular) mentoring relationships. Mentors were invested in their development as music teachers and took the time to have individualized conversations or to provide feedback.

As determined by Strand I findings, those who had no mentor (either formal/curricular or informal/non-curricular) tended to have weaker PMTE beliefs. Strand II analysis demonstrated that these participants often showed signs of craving the type of guidance that occurs with a mentoring relationship.

Laura
We did observe in an elementary class, and also a high school orchestra. There were some good things about observing those classes but like, then after, we never got to really talk about it or ask any questions. That made no sense to me. Why would you [professor] be like, 'here, go out and see these teachers teach. Now come back and sit in this classroom and I'll talk to you more about teaching.'

John
I never met with him outside of class. It wasn't really that kind of class, I guess. I can see how it would be really helpful, though. I'm really looking forward to getting to do more student teaching type of things and then getting feedback about my teaching. I think that's really how I'll make the most improvement.

These participants could possibly benefit from individualized attention and feedback. Laura highlighted a feeling of disconnect between her K-12 observation and introductory music education course experience, while John specifically stated that he could "see how [mentoring] would be really helpful," and was "looking forward" to more individualized feedback or conversation about teaching. Based upon other participants' characterizations of positive

mentoring experiences, it seems that students like Laura and John may find that their music

teaching efficacy beliefs are strengthened through mentoring.

Preservice Music Teachers' Perceptions: Relationship Between Music Teaching Efficacy

Beliefs and Commitment

Strand I analysis revealed a small, yet positive correlation between music teaching

efficacy beliefs and commitment ($p<.01$; $r = .207$). This relationship suggests that participants

who have stronger music teaching efficacy beliefs may also be more committed. Through Strand

II analysis, it became clear that this was true in some cases. However, as the strength of

correlation would suggest, there were several participants whose beliefs did not corroborate this

correlation.

Some participants linked the two constructs—music teaching efficacy beliefs and

commitment to music teaching—in their descriptions of why they did or did not feel committed

to becoming a music teacher.

Very committed, strong efficacy beliefs. In explaining why she felt so committed to

becoming a music teacher, Carolyn brought up her music teaching efficacy beliefs.

> *Carolyn*
> I think I'm sure I want to be a teacher because I feel like I can be good at it…or maybe I
> think I'll be good at it because I like music so much? I think it's more of the first one,
> though. I love music and I enjoy working with kids. In the experience I've had working
> with kids, I feel like I'm well suited for it, and when you put it together with music it's
> kind of a win-win.

Carolyn referenced music teaching efficacy and commitment as reciprocal beliefs. For Carolyn,

and other participants who were both confident and committed, these two constructs often

seemed inherently linked. Several other participants identified their strong commitment

stemming, at least in part, from their music teaching efficacy beliefs. In other words, some

participants felt strongly committed to teaching music because they felt very confident in their

abilities to be an effective music teacher.

Less committed, weak efficacy beliefs. Some participants, like Laura, were less

committed to becoming music teachers, and cited weaker efficacy beliefs in their explanation.

Laura
I'm not sure I want to teach music for my whole career. Probably piano lessons, voice
lessons, I can see myself always having a studio, but as far as teaching choir, I wouldn't
say I'm a hundred percent committed. I, like…I'm also not sure that I could handle that
every day. I can manage one student at a time in a private lesson setting, but there's a lot
more going on in a choir rehearsal and I think it takes a special type of person to do that.
I'm not sure I'm it.

Laura noted that she is not committed to teaching music in a K-12 classroom for her whole

career, citing a lack of confidence in her ability to "handle that every day." Like Laura, some

participants who were less committed to teaching music also cited weaker music teaching

efficacy beliefs, or doubt in their ability to achieve long-term success.

Participants like Carolyn and Laura help to explain the correlation between music

teaching efficacy beliefs and commitment to music teaching. Both Carolyn and Laura identified

commitment and music teaching efficacy beliefs as almost interchangeable. Carolyn was strong

in both areas, while Laura identified weaker beliefs.

There were also several participants who fell outside of this correlation. Some

participants identified strong commitment to teach music in spite of weaker music teaching

efficacy beliefs, while others felt confident in their ability to teach music, but were not fully

committed.

Very committed in spite of weak efficacy beliefs. Allison brought up some K-

12 observations that she felt had negatively impacted her teaching confidence. In spite of this,

however, she remained fully confident that she wanted to become a music teacher.

Allison
I know that I want to teach music for sure. I don't think any amount of negative

experiences could even change that. Sometimes observing in a terrible classroom does worry me, like, 'what if I end up like that.' But I love music and I really want to give back, impact kids' lives the way mine has been. It's just a matter of like, figuring out how to get there.

For Allison, it seems that experiences that had a weakening influence on her music teaching efficacy beliefs did not necessarily impact her commitment. She expressed commitment as a more constant conviction, noting that she maintains a strong desire to teach music despite some experiences that she perceived as having weakened her music teaching efficacy beliefs. Allison was one of several participants who noted that their commitment to teaching music was less impacted by a "negative" course experience than their music teaching efficacy beliefs.

Less committed in spite of strong efficacy beliefs. Although uncommon, there were a few instances in which participants—Alyssa among them—noted that while she felt fairly confident in her teaching abilities, she was not committed to music teaching as a career.

Alyssa
It's not that I don't think I would be good at it [teaching], I've actually taught lessons in the past and always had good results. Students like me and I'm generally able to help them improve. It's just that I don't think it would be a rewarding profession for me. I'm not sure that music in general is the right path for me.

Alyssa expresses strength in both PMTE and CME beliefs, noting that she is "generally able to help [students] improve," and that she tends to get along well with students. In spite of this, Alyssa is not committed to music teaching as a career, stating that she is not sure it would be a rewarding profession for her.

Summary of Mixed Methods Results

Triangulation between Strand I and Strand II data revealed that participants conceive of PMTE and CME beliefs slightly differently, corroborating Strand I components analysis. In most cases, participants' beliefs identified through Strand I PMTES analysis were also corroborated by interview data.

Introductory music education students' music teaching efficacy beliefs and commitment to music teaching seemed to be both strengthened and weakened by a variety of experiences including course content, peer teaching, field experience, mentoring interactions, and non-curricular teaching. Also uncovered through mixed methods analysis were nuances related to mentoring, most notably the finding that participants who were outliers based upon Strand I analysis (strong PMTE beliefs in spite of no mentoring incorporated in their introductory music education course) had sought out or maintained non-curricular mentoring relationships.

Participants expressed a connection between music teaching efficacy beliefs and commitment to music teaching, mimicking the correlation found in Strand I analyses. In some cases however, participants expressed strong commitment in spite of weaker music teaching efficacy beliefs, or weaker commitment in spite of strong music teaching efficacy beliefs.

Chapter VIII

Summary & Conclusions

The purpose of this study was to gain an understanding of practices characteristic of introductory music teacher education courses including timing (when offered), content, and types of teaching experiences. Moreover, I sought to investigate the music teaching efficacy beliefs and commitment to teaching of preservice music teachers when enrolled an introductory music education course. Finally, the impact of introductory music education course experiences on preservice music teachers' music teaching efficacy beliefs and commitment to teaching was explored. This study was conducted using a sequential explanatory mixed methods design (Creswell & Plano Clark, 2011). While both quantitative and qualitative methodologies were equally weighted in data analysis and interpretation phases, the qualitative strand served an extension and explanation of the quantitative strand. Strand II (qualitative) sampling decisions, interview topics, and analysis procedures emerged directly from Strand I (quantitative) analysis (Hanson et al., 2005).

Strand I quantitative data were collected from 684 undergraduate music education students and 42 music teacher educators from 41 NASM accredited institutions. Music teacher educators completed the online Introductory Music Education Course Data questionnaire (IMECD), and undergraduate students completed a paper-and-pencil version of the Preservice Music Teacher Efficacy Scale (PMTES). Following preliminary analysis of Strand I data, Strand II qualitative interviews were conducted with 24 undergraduate music education students. Strand II participants were selected from the Strand I sample utilizing a nested stratified purposive sampling technique (Maxwell, 1997; Onwegbuzie & Collins, 2007; Tashakkori & Teddlie, 2003; Teddlie & Yu, 2007).

Results from Strand I analyses indicated that most introductory music education courses are offered during the freshman or sophomore year, and include peer teaching and field experience in addition to other course content. Quantitative and qualitative analyses indicated that introductory music education students' efficacy beliefs can be impacted both positively and negatively by a variety of experiences including teaching, observation, and mentoring. Commitment may be positively impacted through similar experiences, though instances of negative influence on music teaching commitment were rare. Analysis of qualitative data revealed several types of experiences perceived by participants as influential to music teaching efficacy beliefs or commitment, as well as qualities or characteristics perceived by participants to facilitate productive field experiences and mentoring relationships.

Based on this analysis, preservice music teachers' music teaching efficacy beliefs can be interpreted as having two dimensions: personal music teaching efficacy beliefs (PMTE: a preservice teacher's individual beliefs about his or her effectiveness as a music educator) and classroom management efficacy beliefs (CME: a preservice teacher's individual belief about his or her ability to manage behavioral and other non-content area classroom situations). Although highly correlated, these distinct facets may be impacted both similarly and differently within the context of an introductory music education course. There were no significant differences in music teaching efficacy beliefs or commitment across gender, primary instrument, institution size, or institution type. Strand II analyses corroborated these results, providing nuance and detail in the case of experiences perceived as impacting PMTE and CME. Participants identified peer teaching, peer interactions, individual mentoring, and field experiences as influential in the development of music teaching efficacy beliefs and commitment. Strand II analysis also revealed several characteristics of effective mentoring relationships—including appropriate time, mentor

investment, and individualized attention—and field experiences, including context, purpose or guidance, and follow-up discussion.

In this chapter, I will begin by presenting conclusions based upon descriptive analyses of data concerning introductory music education course instructors and institutional practices in terms of course structure (research question 1). Following the discussion of course-related data, conclusions drawn from mixed methods analyses of music teaching efficacy beliefs (research questions 2 and 6) and commitment to teaching (research questions 3 and 6) are addressed, including measurement of music teaching efficacy beliefs, group differences in each construct, as well as the relationship between music teaching efficacy beliefs and commitment (research question 4). Conclusions drawn from both qualitative and mixed methods analysis of experiences influencing introductory music education students' music teaching efficacy beliefs and commitment are then presented (research questions 5-8). Attention to alignment between Strand I and II data is woven throughout the discussion (research question 9).

Throughout this chapter, I discuss possible implications for practice in music teacher education, tying results to the prior work of other researchers, noting similarities or discrepancies as appropriate. This chapter concludes with a summary of findings organized according to research questions, as well as a discussion of the strengths and limitations of the present study's methodology, and recommendations for further research.

Music Teacher Educators: Background & Experience

Music teacher educator participants in the present study were selected from past attendees of the Society for Music Teacher Education (SMTE) symposia, an organization whose mission is to improve the quality of teaching and research in music teacher education (smte.us).

Course instructors reported a wide variety of areas of emphasis including band, orchestra, choir, general music, guitar, technology, and research.

The National Association for Music Education (NAfME, formerly MENC) encourages the development and teaching of music education courses by qualified music education instructors who have experience in K-12 music teaching (MENC Task Force on Music Teacher Education, 1987). The music teacher educators who participated in the present study reported a great deal of experience (mean of 11 or more years) at the K-12 and university levels. Many participants also reported having taught their institution's introductory music education course five or more times. This amount of experience likely contributes to awareness and sensitivity to developmental needs of preservice music teachers in their first music education course experience. It is possible however that experience, particularly multiple iterations of teaching the same course, leads to stagnant or less innovative practices.

Collaborations among experienced faculty with varied strengths serve to improve the music teacher education experience (MENC Task Force on Music Teacher Education, 1987). Several course instructor participants indicated that the introductory music education course at their institution had been collaboratively designed on a department level. Other participants noted that two or more instructors taught differing sections of an introductory course using different approaches and syllabi. Based on recommendations of prior research, the former approach is preferable, combining multiple music teacher educators' perspectives and expertise to design an introductory course experience, and providing cohesive experience for all preservice music teachers within the music education program at a particular institution.

Music teacher educator experience and expertise are important attributes. The MENC Task Force on Music Teacher Education (1987) suggests that teacher educators should place

value on teaching as a career, and demonstrate commitment to the development of music teachers. While it is not possible to fully discern issues of value and commitment based upon instructor-related data analysis, all participating course instructors were attendees of SMTE symposia, a biennial meeting focused primarily on the refinement and advancement of music teacher education. Many participants also demonstrated an eagerness to participate in the present study via initial email conversations. Given the topic of introductory music education courses, participants provided significant detail regarding practices at their institution, and were willing to elaborate upon their questionnaire responses through open-ended items. Additionally, many participants requested a summary of findings, demonstrating further investment in the topic.

Status of Introductory Music Education Courses

The majority of institutions participating in this study offer their introductory music education course during the fall semester of students' freshman year. Sophomore year courses were also common. Introductory music education courses are most often structured in a seminar format, including lecture, class discussion, peer teaching, field experience, and other activities. The most common type of field experience reported at the introductory level was observation in multiple K-12 classrooms, however few instructor or student participants indicated a specific goal or structure of observations beyond mere exposure to a classroom setting.

The MENC Task Force on Music Teacher Education (1987) encourages the development of music education courses that include field experience in the form of both observation and teaching, noting that early field experience is an important aspect of any music teacher education program. It is understandable that, as was the case in this study, the majority of introductory level field experience is observation rather than teaching, as students likely lack methods, techniques, and conducting coursework necessary for success in a K-12 teaching environment.

The MENC Task Force (1987) also encourages laboratory, or peer teaching. Similarly, the majority of course instructors reported incorporating one or more peer teaching experiences at the introductory level, though specific length and expectations varied considerably. Peer teaching at the introductory level typically consists of either one or two teaching segments, with the first often being shorter, or planned and taught with a group of peers, and the second being slightly longer and independently taught.

Instructors indicated that the purpose of their introductory music education course was to introduce students to music teaching, awaken them to a variety of possibilities, and motivate and prime them for the music education degree program. Slightly less than half reported using a textbook in their class, with the remainder using a variety of source readings. Course topics or areas of focus included music teacher identity development, teacher-student relationships, philosophy, lesson planning, and professional organizations. Introductory music education courses, generally, seem to be survey-type courses including exposure to a variety of relevant topics. This finding is in line with prior claims regarding the purpose of introductory music education courses. Wiggins (2007) notes that introductory courses are typically designed to "plant seeds" early in a degree program, with the goal being to grow and extend introductory course topics throughout the music teacher education curriculum. Comparably, the MENC Task Force on Music Teacher Education (1987) encourages the development and application of a wide variety of skills and understandings related to the music education profession. Based on the results for instructor questionnaire responses regarding course structure and content, the overarching purpose or goal of introductory music education courses is indeed to plant the seeds for the development of such understandings and competencies over the course of the undergraduate education.

Implications.   A common theme that underlies all music teacher education programs is the need for preservice music teachers to develop the skills and knowledge necessary for success in K-12 music teaching. Institutional factors, faculty beliefs and expertise, and other elements contribute to the allocation of time and resources for coursework, field experiences, mentoring, and other aspects of a music teacher education program. Music teacher educators' K-12 experience plays a significant role in the development of effective curricula for undergraduate courses. In the present study, introductory music education courses were taught by instructors with varied areas of emphasis. Instructor area of emphasis likely influences values or perspectives upon the music teaching profession, and may have implications for course design, including the types of experiences and expectations included within an introductory music education syllabus. The notion that introductory courses are taught by instructors with varied backgrounds and expertise strengthens the case for collaborative degree and course design, co-teaching, and other faculty interactions for the purpose of strengthening and diversifying the music teacher education experience. Such collaboration may be of particular importance at the introductory level, where students are often exposed to new teaching contexts, content knowledge, and other ideas for the first time.

Within the present study, introductory music education courses were designed to provide students with a topical and pedagogical overview, as well as to spearhead the development of music teacher identity or excitement for the profession. While it is unclear to what extent course instructors aimed to "raise questions," as Wiggins (2007) suggests, introductory courses were generally structured to provide students with a foundation for their music teacher education program. Introductory courses are a prime forum for presenting a range of teaching and learning issues, relevant topics, and pedagogical approaches. If structured in this manner, an introductory

course will provide experience in a variety of areas, which can then be cultivated throughout a music teacher education program.

While laying a foundation is one important purpose of an introductory course however, such courses can accomplish considerably more than simply "priming the pump" for the remainder of the degree program. Within the foundational or topical overview design of such courses lie opportunities to develop competency and confidence in several areas. Introductory music education courses should utilize students' prior knowledge and experiences, challenging them to confront their own beliefs about music teaching, and begin to refine and extend thinking on a variety of matters. Music teacher educators should take care to capitalize on opportunities to encourage introductory music education students to develop individual confidence and commitment as well as habits of reflection and seeking the counsel of mentor teachers. These beliefs and dispositions can be encouraged through course structure, content, and field experiences, the specific impacts and implications of which are addressed in subsequent sections of this chapter.

Introductory Music Education Students' Music Teaching Efficacy Beliefs & Commitment to Music Teaching

Music teaching efficacy beliefs: Two components. Principal components analysis of PMTES data revealed two-component model of preservice music teachers' teaching efficacy beliefs. Items within the first component deal with tasks associated with teaching music, including lesson planning, assessment, and effective use of content knowledge, while items within the second component deal solely with issues of managing student behavior and classroom expectations. These components were therefore labeled Personal Music Teaching Efficacy beliefs (PMTE) and Classroom Management Efficacy beliefs (CME).

The emergence of two music teaching efficacy belief factors demonstrates that preservice teachers do differentiate between multiple facets of the teaching process, and build confidence accordingly. Although related, participants viewed skills and competencies specific to teaching music as distinct from those necessary for managing student behavior. This finding emerged from both Strand I and Strand II analyses, and is corroborated by Soodak and Podell (1996), Charalambous, Phillipou, and Kyriakides (2008), and Woolfolk and Hoy (1990), all of whom similarly identified a two component model of preservice teacher efficacy beliefs.

As was the case in this study, the two components (PMTE and CME) are typically found to be highly correlated (Charalambous, Phillipou, & Kyriakides, 2008; Soodak & Podell, 1996). However, this correlation differs from the weaker relationship found between teaching efficacy beliefs and classroom management in Woolfolk and Hoy's (1990) study. This difference is likely attributable to the age or developmental stage of study participants, or to elements of research design. The sample measured within this study was larger, more diverse (more institutions represented), and younger (only introductory music education students) than any prior studies in this area. Additionally, the collection of Strand II interview data differed from prior studies of preservice teacher efficacy beliefs, and served an explanatory function in uncovering the relationship between the two music teaching efficacy components.

Results of this study confirm that the three-component model of teaching efficacy beliefs found with in-service teachers (students' involvement in learning, teaching strategies, and classroom management) is not an accurate representation of the music teaching efficacy beliefs of students enrolled in introductory level courses (Tschannen-Moran & Woolfolk-Hoy, 2001). Further, results refute Tschannen-Moran and Woolfolk-Hoy's suggestion that due to a lack of experience, preservice teachers may not hold multiple types of teaching efficacy beliefs. It

should be noted, however, that Tschannen-Moran and Woolfolk-Hoy's three-component model may be a better fit for older undergraduates who are nearing entry into the profession, and have accumulated significantly more teaching experience than introductory level students.

A two-component model of preservice music teachers' teaching efficacy beliefs seems therefore to be accurate, with one component encompassing beliefs related to the planning and delivery of instruction, and the other related to the management of student behavior within a classroom environment (Charalambous, Phillipou, & Kyriakides, 2008; Soodak & Podell, 1996; Woolfolk & Hoy, 1990).

Implications.		Within his Social Cognitive Theory, Bandura (1986; 1997) states that efficacy beliefs are both malleable and multidimensional. The suggestion that preservice teachers have the capacity for only a single dimension of teaching efficacy beliefs (Tschannen-Moran & Woolfolk-Hoy, 2001) is therefore in dissonance with Bandura's theory, and is in need of questioning. The nature of self-efficacy calls for multiple measures of teaching efficacy beliefs that address and reliably measure teachers' beliefs in a discipline-specific manner, and at all stages of experience and development.

Based on the realities of the teaching profession, a logical conclusion is that teaching efficacy beliefs are indeed multifaceted, and that there is some degree of correlation between personal music teaching efficacy beliefs and classroom management efficacy beliefs. For preservice teachers however, a third, student involvement component may evolve over time, as maturity and teaching experience are gained. Additionally, the correlation between teaching efficacy components may fluctuate depending upon elements such as stage of the degree program, amount of teaching vs. observation experience, and strengthening or weakening impacts of such activities upon each facet of music teaching efficacy beliefs. Specific

experiences impacting PMTE and CME beliefs are discussed in subsequent sections of this chapter.

General teaching efficacy beliefs. Participants' responses to items related to general teaching efficacy beliefs—a global belief of what music teachers in general are capable—revealed that this construct was not reliably measured through the PMTES. This finding is similar to prior studies of preservice teachers' efficacy beliefs (Lin & Taylor, 2002; Emmer & Hickman, 1991; Guskey, 1988; Soodak & Podell, 1996; Tschannen-Moran & Woolfolk-Hoy, 2001; Woolfolk-Hoy, 2000). Although preservice teachers hold distinctly measurable facets of music teaching efficacy beliefs, including personal music teaching efficacy beliefs and classroom management efficacy beliefs, the notion of general teaching efficacy beliefs may not be measurable within a preservice population.

This finding substantiates Tschannen-Moran and Woolfolk-Hoy's (2001) claim that there are some aspects of teaching efficacy beliefs that bear little meaning to preservice teachers. Preservice teachers, particularly those in the first few years of an undergraduate degree program, lack experience working with and observing teachers at work within a school community. Given their lack of professional maturity, preservice teachers likely view teaching more in terms of their own personal capability or impact, rather than as the whole of a profession.

Implications. Preservice teachers may lack the experience or perspective necessary to formulate general teaching efficacy beliefs. Even so, preservice teachers should be challenged and encouraged to think globally about the teaching profession, as well as the way(s) in which they can conceive of fitting within the professional community. With greater awareness and knowledge of the music education profession gained through K-12 observations, small teaching roles, mentoring, or course content, novice teachers may develop a more global sense of what

teachers are capable of, or general teaching efficacy beliefs: the types of changes or progress teachers can affect in students, both within a single classroom and as a profession. Because teaching efficacy beliefs have a positive relationship with many teaching competencies (Ashton & Webb, 1986; Bandura, 1997; Brookover, Beady, Flood, Schweitzer, & Wisenbaker, 1979; Brouwers & Tomic, 2001; Henson, 2002; Gordon et al., 1998), early encouragement of such habits of thought could perhaps develop greater professional awareness, increased attention to students' needs, and willingness for innovation or pedagogical experimentation.

Group differences in music teaching efficacy beliefs & commitment to music teaching. No differences were found in participants' music teaching efficacy beliefs or commitment across gender, primary instrument, institution type or size. This finding is in line with some prior research of in-service teachers, which suggests that efficacy beliefs and commitment are more likely influenced by school climate, stress, and perceived support from colleagues, as opposed to demographic factors (Billingsley, 1992; Karakus & Aslan, 2009; Riehl & Sipple, 1996). Some researchers have found a significant gender difference in in-service teacher commitment, suggesting that female teachers are more committed than male teachers (Coldarci, 1992; Karakus & Aslan, 2009; Riehl & Sipple, 1996), or teaching efficacy beliefs, suggesting that female teachers are more efficacious than male teachers (Evans & Tribble, 1986). Neither was the case, however, in the present study. This discrepancy could be due participants' age—introductory level preservice students vs. prior research with in-service teachers—or to the size and representativeness of the sample in the present study—prior studies of preservice teacher commitment have primarily been conducted within a single institution.

Some differences in music teaching efficacy beliefs were found across year in program. Sophomore and junior students enrolled in introductory music education courses held stronger

music teaching efficacy beliefs than freshmen. In interviews, sophomores and juniors often referenced their time spent in college, as well as experiences that were a part of their music teacher education program ("It's the experiences that I've had since being [at my university] that have boosted my confidence"). Some older undergraduates also referenced the time or distance that they felt from their own K-12 experience as a contributing factor in their music teaching efficacy beliefs ("I feel like, the more distance I have [from high school], the more it seems like I might be successful at teaching at that level"). Many freshman instead noted that although they were looking forward to the various experiences and opportunities available within their music teacher education program, they had not yet had certain teaching, observation, mentoring or coursework opportunities, making statements such as "It's only my first year…so most of those experiences [teaching and observation] are ahead of me," and "I feel like I'm just starting to figure out the student thing…I'm looking forward to having opportunities to practice teaching." Particularly in the case of preservice teachers, teaching efficacy beliefs are often future-oriented (Hoy & Spero, 2005). This notion is replicated through students' hopeful and anticipatory tone regarding teaching confidence and experience.

The differences in participants' music teaching efficacy beliefs across year in program corroborate the work of prior researchers, who have found that time spent engaged in undergraduate coursework activities, including discussion and field experiences contributes to stronger music teaching efficacy beliefs (Auh, 2004; Chaffin & Manfredo, 2010; Hagen, Gutkin, & Wilson, 1998; Leader-Janssen, 2006; Smolleck & Mongan, 2011). In contrast, some studies have determined that preservice music teachers' music teaching efficacy beliefs weaken slightly after increased experience or exposure to a K-12 teaching environment (Barnes, 1998). Researchers attribute this change to initial inflating of music teaching efficacy beliefs, which

then weaken slightly as preservice teachers become accustomed with the realities of K-12 teaching. However, it is important to note that all participants in the present study, regardless of year in program, were enrolled in an introductory music education course. Based the finding that freshmen reported slightly weaker music teaching efficacy beliefs, as well as participants' explanations of their music teaching efficacy beliefs through follow-up interviews, it seems that older students in their first music education course experience have stronger music teaching efficacy beliefs due to greater maturity, distance from the role of K-12 student, and time spent in collegiate coursework. As they progress through the degree program however, all preservice music teachers may, as Barnes (1998) suggested, experience a slight weakening of music teaching efficacy beliefs due to increased understanding of the music teaching profession.

Implications.   Although their music teaching efficacy beliefs were slightly weaker than older students, freshmen participants in the present study demonstrated eagerness and willingness to develop their music pedagogy skills and content knowledge, and older undergraduates noted that their experiences since beginning their undergraduate education had contributed to their music teaching efficacy beliefs and commitment. Because teaching efficacy beliefs develop in a cyclical nature (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998), and because course experiences play a significant role in the development of teaching efficacy beliefs (Wenner, 1993; 2001), it is important to begin the cultivation of these beliefs through meaningful teaching and learning experiences in the first year of a music teacher education program.

Based on results of the present study, a freshman or sophomore year course may be equally effective. A junior level (and to some extent, sophomore level) course presents significant challenges from the standpoint of program design. If the introductory level course is to be students' first music education course experience, waiting until the junior, or even the

sophomore year to offer it creates a truncated time frame in which to complete the remainder of coursework. Although freshmen students' slightly weaker music teaching efficacy beliefs could be interpreted as lacking readiness for music teacher education coursework, it may also be the case that music teaching efficacy beliefs follow a natural progression of strengthening and weakening throughout the years of an undergraduate program.

Further, while music teaching efficacy beliefs were the most salient outcome variable within this study, introductory music education courses also play an important role in challenging assumptions, extending and refining prior knowledge, and exposing preservice teachers to multiple facets of K-12 music teaching. For these reasons, as well as freshman participants' eager and future-oriented statements about learning and developing their music teaching abilities, a freshman level introductory music education course may be ideal in terms of preservice teachers' developmental readiness. Older students in contrast, were more comfortable in the collegiate environment, and may therefore be less open to new content, alternative views, or diverse approaches to music teaching.

Program and course design are paramount in determining the ways in which strong music teaching efficacy beliefs will be encouraged. Cohesiveness in program philosophy, effective course progression, and close monitoring of preservice music teachers' development are effective means by which music teacher educators can oversee and encourage the development of music teaching efficacy beliefs. Knowledge of the two-component model—personal music teaching efficacy beliefs and classroom management efficacy beliefs—should inform course content in order to best nurture beliefs in each area. For example, while peer teaching and individual mentoring may have significant implications for the development of personal music teaching efficacy beliefs, classroom management efficacy beliefs and commitment are likely

strengthened through K-12 observations. Given the stronger efficacy beliefs of slightly older undergraduates, interaction between freshmen and older students through peer mentoring may positively influence first year students who have yet to gain the knowledge and perspective that comes from multiple years in an undergraduate program. Depending upon the conditions and context associated with mentoring relationships, individual mentoring has the potential to positively impact both music teaching efficacy beliefs and commitment to teaching. Each of these areas is further addressed in connection with participants' perceptions of experiences influencing their music teaching efficacy beliefs and/or commitment.

Music Teaching Efficacy Beliefs & Commitment: Relationship

A significant positive correlation ($r = .70$) between music teaching efficacy beliefs and commitment to music teaching indicates a relationship between these two constructs. Statistically, more efficacious participants also tended to be more committed, although this was not always the case. The relationship between music teaching efficacy beliefs and commitment is mirrored in prior research of in-service teachers, where these constructs tend to have a positive linear relationship, similar to the finding in the present study (Coladarci, 1992; Evans & Tribble, 1986; Erwan, 2010; Tschannen-Moran & Hoy, 2001).

Participants described their commitment to teaching, at least in part, to confidence in their teaching abilities or potential. This was true in cases of strong music teaching efficacy beliefs/strong commitment, as well as in cases of weak music teaching efficacy beliefs/weak commitment. Participants fitting the former profile often identified their commitment and teaching efficacy beliefs as mutually exclusive: they were committed because they felt confident in their abilities to become a successful music teacher, and confident in their abilities because they felt fully committed. In music, as well as in teacher education, the relationship between

career commitment and teaching efficacy beliefs is aligned with prior research (Coladarci, 1992; Evans & Tribble, 1986; Erwan, 2010; Gavin, 2012; Tschannen-Moran & Hoy, 2001). While this study was not longitudinal, and can therefore make no claims regarding attrition, it should be noted that prior researchers have determined that more efficacious teachers tend to be more committed, and also tend to remain in the profession longer (Glickman & Tamashiro, 1982; Jones & Parkes, 2009; Russell, 2008).

In addition to participants who fell distinctly along the efficacy beliefs-commitment correlation line, there were fewer who were outliers based upon Strand I analysis. These participants were either very committed in spite of weaker music teaching efficacy beliefs, or less committed in spite of stronger music teaching efficacy beliefs. Qualitative interview data provided explanations for each of these outlier cases. Participants who lacked music teaching efficacy beliefs, but were strongly committed tended to reference either a lack of teaching experience, or an experience(s) that had been perceived as negative, and had a weakening impact on music teaching efficacy beliefs without impacting commitment. For example, some participants stated that they were sure that they wanted to teach music, but were less sure of whether they would be successful having never had the opportunity to practice teaching. Other committed participants referenced specific field observations that they had perceived as particularly challenging, and had caused them to question their effectiveness within a similar situation.

These findings are unique, as prior studies have linked efficacy beliefs and commitment through more of a positive, linear correlation (Coladarci, 1992; Evans & Tribble, 1986; Erwan, 2010; Tschannen-Moran & Hoy, 2001). The combination of quantitative and qualitative methods within the present study allowed for exploration of the correlation between music teaching

efficacy beliefs and commitment as well as for explanation of the experiences and beliefs of participants who were statistical outliers. For participants who demonstrated weak music teaching efficacy beliefs/strong commitment, a lack of experience, or perceived negative experience had contributed to their weaker music teaching efficacy beliefs. It may be that commitment is a slightly more resilient construct than efficacy beliefs, and therefore strong commitment remains more constant in spite of a few less positive experiences. Qualities and characteristics of each of these elements are addressed later in this chapter.

Participants that were efficacious, but not committed were uncommon. These individuals typically had career aspirations outside of music education. Goals included performance, composition, graduate school, or collegiate teaching. This finding deviates somewhat from prior research. Prior studies of teacher efficacy beliefs and/or commitment are typically quantitative in design, and such participants may therefore simply have been dismissed as outliers. Thornton and Bergee (2008) and Jones and Parkes (2009) determined that musical efficacy beliefs (confidence in performance or other musical abilities) contributed interest in pursuing a music teaching career. Within the present study, these participants cited past success in teaching, typically private lessons or sectional coaching, as influential in shaping their strong music teaching efficacy beliefs. Similar to participants with weak music teaching efficacy beliefs/strong commitment, this finding is unique and it should be noted that these participants were outliers in both Strand I and II analysis. These participants are worthy of mention, as their experiences confirm that music teaching efficacy beliefs alone do not determine a preservice teacher's career path.

In fact, participants who had experienced success in teaching music but remained uncommitted are of equal (if not more) interest for music teacher educators as those who are

committed but hold weak music teaching efficacy beliefs. Some of the participants who fit the strong music teaching efficacy/weak commitment profile indicated that they were not sure that music teaching would be a rewarding career. It may be that careers outside of K-12 music teaching seem to hold more professional challenge, reward, or prestige, and therefore seem more attractive than teaching music in a public school. An additional possibility is that previously formed beliefs or societal values surrounding the teaching profession serve as a deterrent for some undergraduates. Teacher salary, professional status, and public perception of the education system have been cited as deterrents from pursuing a career in teaching (Bates, Lewis, & Pickard, 2011). It should be noted that instances of this phenomenon (strong music teaching efficacy beliefs/weak commitment) within the present study were rare (3 participants out of 24), however, due to their identification of preference of viability of a career outside of music education, it seems that one or more of these factors could play a role in efficacious preservice teachers' lack of commitment.

Implications.   Although most of the findings of the current study confirm Bandura's (1997) assertion that efficacy beliefs impact commitment, some findings give rise to questions. Of particular interest are the preservice teachers that are committed to music teaching as a career, but have weak music teaching efficacy beliefs. It may be possible that some undergraduates are committed prior to having had the experiences necessary for the development of strong efficacy beliefs. In addition, although a strongly committed preservice teacher may remain committed despite an early field experience which they perceive as negative, they are unlikely to remain so committed when faced with multiple such field experiences. Although impossible to determine based upon this study alone, preservice music teachers who are committed to teaching but lacking strong music teaching efficacy beliefs can benefit from introductory music education

course components, including field experiences, that are carefully structured, scaffolded, and mediated in order to build students' skills and confidence. This is not to suggest that the realities of teaching (e.g., challenging classroom management) should be "hidden" from introductory students, but rather that field experiences should be mediated and supported through course content and discussion so as to maximize understanding of a particular context.

In cases of strong music teaching efficacy beliefs and weak commitment to teaching, there may indeed be a professional fit issue. Another possibility is that commitment is influenced by a larger set of factors than those that influence music teaching efficacy beliefs, including social agents and alternative career viability. In many cases however, preservice teachers, particularly at the introductory level, may be basing their commitment upon previously held beliefs or perceptions regarding K-12 music teaching. It is therefore necessary for introductory music education courses to include discussion and observation of a wide array of music teaching contexts, challenging prior assumptions or societal stereotypes about public school music teachers. Preservice music teachers who are particularly efficacious, and who feel successful in multiple professional arenas (i.e., alternative career viability) may be among the strongest novice teachers due to their confidence and competence.

An introductory music education course can provide an arena for building and strengthening music teaching efficacy beliefs and reaffirming or building commitment, provided that content and experiences are structured in an appropriate manner. For example, while music teaching efficacy beliefs may be best addressed or strengthened through peer teaching and mentoring, commitment may instead be impacted through observations of K-12 music classrooms, as well as through education regarding details and nuances of the profession.

Experiences Impacting Music Teaching Efficacy Beliefs & Commitment to Music Teaching

Past experiences, course content, peer teaching, field experience, and individual mentoring significantly impacted participants' music teaching efficacy beliefs. Mentoring and peer teaching affected personal music teaching efficacy beliefs (PMTE) more significantly, while field experience had a greater impact on classroom management efficacy beliefs (CME). Participants identified mentoring relationships as having an impact on their commitment to music teaching. Teaching experiences, both curricular and non-curricular also impacted music teaching efficacy beliefs.

Bandura (1997) suggests that efficacy beliefs can be impacted through enactive mastery experiences, vicarious learning, or verbal persuasion. For the purpose of this study, enactive mastery experience was defined as teaching, vicarious learning referred to observation of a peer or K-12 teacher, and verbal persuasion encompassed conversation, through mentoring relationships or peer interaction. Bandura claims that enactive mastery experiences produce stronger and more generalized feelings of efficacy beliefs than vicarious or verbal experiences. Because introductory music education courses are typically students' first music education course experience however, it is logical that vicarious learning (observation) and verbal persuasion (mentoring or peer interaction) may outnumber enactive mastery (teaching) experiences in this context. Vicarious learning, verbal persuasion, and to a less frequent extent, enactive mastery experiences each emerged as significant influences on participants' music teaching efficacy beliefs.

Past experiences. When asked to describe past teaching experiences or their reasons for majoring in music education, most participants began by describing their musicianship or performance experiences. Participants additionally described their love for music, as well as a

desire to "give back" or create for their students the same types of positive musical experiences they had enjoyed. Jones & Parkes (2009) similarly found that undergraduates who had a desire to share music with others were likely to feel that they would be successful in a music teaching career. Some participants also cited past leadership or teaching experiences—serving as drum major, section leader, ensemble president, or assisting with sectionals for younger musicians— that had helped to build and strengthen their music teaching efficacy beliefs, contributing to their decision to pursue a music education degree. Based on participants' descriptions of past experiences, involvement in music performance and music teaching activities seemed to weigh separately on their decision to pursue music education.

Isbell (2007) found that *musician* and *teacher* represented distinctly different facets of preservice music teacher identity. Although for most, the label of *teacher* carries no negative connotations, the *musician* portion of preservice music teacher identity is typically stronger when undergraduates enter a music teacher education program. Further, prior experiences, including past performance opportunities play a key role in identity formation. This dual identity with a stronger musician component was likely evidenced through participants' references to their past performance experiences in explaining their reasons for pursuing music education.

Course content. Although not the most frequently cited, some participants indicated that their introductory music education course content played a role in the development of their music teaching efficacy beliefs. Participants cited the importance of new knowledge as well as learning about pedagogical methods or resources. College-level instruction has been found to have a significant strengthening impact on teaching efficacy beliefs (Auh, 2004; Hewitt, 2003; Wenner, 1993), and similarly, increased content knowledge has been linked to stronger teaching efficacy beliefs (Bright, 2005; Byo, 1999; Wenner, 2001).

Peer teaching.   Results of Strand I analysis demonstrated that peer teaching had a significant impact on participants PMTE beliefs, a finding that was corroborated through Strand II analysis. Teaching experience has previously been positively correlated with teaching efficacy beliefs (Leader-Janssen, 2006; Lin, Gorrell, & Taylor, 2002), though no prior researchers have specifically investigated the impact of peer teaching on the development of teaching efficacy beliefs. The influence of peer teaching upon PMTE beliefs therefore serves to expand understanding of the development of teaching efficacy beliefs.

Success in peer teaching—preparing and executing steps of a lesson plan, accomplishing a particular objective, observing peer learners to be enthusiastic and engaged—had a strengthening influence on participants' music teaching efficacy beliefs. As may be expected, peer teaching experiences had a stronger influence upon PMTE than CME beliefs. Participants noted that the opportunity to practice teaching within a controlled environment was beneficial to their confidence when considering teaching in a "real world" situation. Powell (2011) similarly found that preservice music teachers valued peer teaching for the opportunity to practice teaching skills without the added challenge of classroom management. Furthermore, participants noted that observing their classmates' peer teaching lessons was of equal benefit. According to Bandura's (1986; 1997) theory therefore, peer teaching facilitated both enactive mastery (teaching) and vicarious learning (observation) experiences for the participants in this study. Participants typically perceived opportunities to practice peer teaching, as well as opportunities to observe others' teaching as beneficial.

Also uncovered through Strand II analysis, however, was the notion that some participants' PMTE beliefs were weakened somewhat following peer teaching exercises. These participants cited a lack of success in their teaching, failure to accomplish an objective, or

absence of any positive feedback from peers. In contrast to peer teaching experiences identified by participants as "successful," these experiences caused participants to question or doubt their teaching abilities or potential for success. It was the combination of quantitative and qualitative methodologies results in this unique finding. Prior studies have linked teaching experience with stronger teaching efficacy beliefs (Leader-Janssen, 2006; Lin, Gorrell, & Taylor, 2002). While this finding was corroborated by Strand I statistical analyses, analysis of qualitative data provided a level of nuanced explanation not previously understood. As Bandura (1997) suggests, enactive mastery (teaching) experiences proved very powerful in the formation of music teaching efficacy beliefs. It is important to note, however, that enactive mastery experiences perceived as successful typically have a strengthening impact upon teaching efficacy beliefs, while enactive mastery experiences that are deemed less than successful may serve to weaken teaching efficacy beliefs.

Another beneficial aspect of peer teaching was peer interaction and feedback. Several institutions included a group peer teaching assignment within the introductory music education course where small groups of students worked together to plan and teach a short lesson. Participants reported respecting their peers' opinions, and therefore peer interaction during the planning, teaching, and debriefing phases of such assignments was beneficial, having the potential to validate or contribute to building strong music teaching efficacy beliefs. This type of peer teaching, where preservice teachers work together to design, plan, and teach a lesson, is an example of a developmentally appropriate scaffolded experience (Wood, Bruner, & Ross, 1976). Wood, Bruner, and Ross found that learners were often most successful when tasks were structured at an appropriate level of difficulty, broken down into manageable increments, and facilitated through working with a partner or more knowledgeable individual. The assignment to

plan and teach a lesson with a small group of peers is an example of each of these elements: planning a short lesson along with a group of other preservice teachers is a developmentally appropriate task as, for many preservice teachers, this was their first attempt at planning and teaching a lesson.

Both peer feedback and group discussion following teaching experiences have been established as positive contributors to teaching skills, teaching efficacy beliefs, and commitment (Auh, 2004; Bergee, 2002; Billingsley, 1992; Erwan, 2010), although it should be noted that particularly for preservice teachers, negative feedback in a public setting can be damaging (Chaffin & Manfredo, 2010). One participant highlighted this potentially damaging effect, citing a peer teaching experience after which peers provided only negative feedback. In the public setting of his classroom, this type of interaction was perceived as overly critical, even cruel. In this case, the participant's PMTE beliefs were significantly weakened, such that he doubted his ability to execute a successful lesson.

Hendricks (2009) found that high school musicians' musical performance efficacy beliefs were influenced by peer encouragement or feedback and observation of peers' successes or struggles in addition to other factors. In Hendricks' study participants with stronger efficacy beliefs were more likely to be influenced vicariously by others' successes, while those with weaker efficacy beliefs were more easily influenced by other students' struggles or negative feedback. The findings in the present study confirm that peer interaction and feedback have the potential for both strengthening and weakening influences on music teaching efficacy beliefs. In light of Hendricks' finding, however, it is also possible that preservice teachers who begin with stronger music teaching efficacy beliefs are more likely to interpret feedback as positive, while

those with weaker efficacy beliefs to start may be more easily influenced by negative feedback or criticism.

The impact of peer teaching interactions described by participants in this study may also be clarified by another theoretical framework: social constructivism. Constructivists such as Bruner (1985) and Vygotsky (1978) stressed the importance of social interaction in learning, suggesting that learners work together to experience and organize information, co-constructing knowledge. Vygotsky argued that learning facilitates development. In the case of preservice teachers, it may be that learning, or co-construction of knowledge leads to development in both teaching abilities and teaching efficacy beliefs. For most participants, working together with peers to plan a lesson, or receiving peer feedback after teaching were examples of valuable interactions in which knowledge was refined and music teaching efficacy beliefs were strengthened. Even in the case of the single participant who cited negative feedback as damaging to his music teaching efficacy beliefs, the interaction with his peers facilitated a change in knowledge and beliefs.

Mentoring.   Bandura (1977b) refers to the mentoring experience as verbal persuasion, asserting that an individual's self-efficacy beliefs (in this case, music teaching efficacy beliefs) can be impacted through suggestion, encouragement, or interpretation of an instruction from another individual. In education research, the term "verbal persuasion" has been used synonymously with suggestion or support from a mentor or teacher (Newlin, 1997). Because this term is taken directly from Bandura's work, I elected to use it, along with Bandura's other original terms, enactive mastery experience, and vicarious learning. Bandura suggests that people are "led, through suggestion, into believing they can cope successfully," with new or challenging tasks (1977, p. 198). While the basic tenet of this statement is true—individuals' efficacy beliefs

are impacted by support or suggestion from others—Bandura's statement, as well as his use of the word "persuasion" connote a lack of individual agency in the learning process. As evidenced by participants' explanations of mentoring relationships, it is clear that mentor feedback, advice, or sharing of knowledge did play a somewhat persuasive role in strengthening or weakening efficacy beliefs. It was participants' own interpretations of their mentor interactions as well as a variety of other characteristics, which when combined, impacted music teaching efficacy beliefs.

Additionally, some participants demonstrated considerable agency, seeking out or maintaining relationships with mentors outside of course requirements. In these cases, mentor-mentee relationships were similar to curricular mentor-mentee relationships, in that suggestions, support, and feedback from a mentor contributed to strengthened music teaching efficacy beliefs. However, participants who sought non-curricular mentors demonstrate the importance of the mentee role within a productive mentoring relationship, and further call into question the use of the term "persuasion." In cases where a mentee seeks out a mentor's advice or assistance, the two parties are essentially co-constructing knowledge and music teaching efficacy beliefs (Vygotsky, 1978). It is not only the "persuasion" (suggestion, advice, feedback) of the mentor that plays an important role, therefore, but also initiative on the part of the mentee. Mutual effort and interaction contribute to the type of mentoring relationship that has a strengthening impact upon music teaching efficacy beliefs.

Individual mentoring had a strengthening impact on participants' music teaching efficacy beliefs and commitment. This relationship was highlighted through statistical analysis, and supported by interview data. Prior research in this area has correspondingly identified mentoring, including suggestions, feedback, and support, as a positive, strengthening influence on preservice teachers' efficacy beliefs (Bergee, 2002; Chaffin & Manfredo, 2010). Although this was also the

case in the present study, interview data highlighted some nuances of mentoring relationships not previously discussed in teaching efficacy beliefs or commitment literature.

Participants identified appropriate time as well as mentor and mentee investment as crucial for a productive mentoring relationship. Without appropriate time, or without perceived investment on the part of the mentor, individual mentoring had little or no impact on participants' music teaching efficacy beliefs or commitment. Prior studies of music teacher mentoring have determined that both preservice and in-service teachers tend to seek out mentors based upon perceived "willingness" on the part of the mentor to engage in the mentoring relationship (DeBolt, 1992; Duling, 2000). In-service teachers, additionally, seek out mentors based upon high levels of pedagogical and content knowledge (Duling, 2007). While knowledge and expertise played a role in the mentoring relationships within this study (see below), mentor and mentee desire (willingness) to engage or invest in the relationship was among the most significant elements for participants' perception of a productive mentoring experience. Participants in the present study referred to their mentors as "helpful," as opposed to "knowledgeable." Although typically referring to the helpful nature of their mentor's shared knowledge or expertise, the introductory music education students' most impactful perceptions were those of willingness or desire on the part of their mentor, as well as a caring or helpful quality. It may be that although introductory-level preservice music teachers value content knowledge, they lack the experience or perspective to discern exactly what it is that they need to gain from a mentoring relationship. They therefore may initially select or pursue a mentoring relationship based on approachability or openness within the mentor to share his or her expertise, rather than on perceived level of content knowledge.

Participants whose mentoring experiences positively impacted their music teaching efficacy beliefs or commitment noted that their mentor was caring (invested in the mentee's well-being and development), helpful (knowledgeable, and willing to share knowledge or experiences), and able to provide individualized attention or feedback. Duling (2007) and Charalambous et al. (2008) similarly determined that feedback from mentors informed preservice teachers' efficacy beliefs, particularly in cases when preservice teachers considered mentors to be trustworthy or knowledgeable. The importance of individualized mentor feedback in the development of strong teaching efficacy beliefs has also been described in prior research (Cherubini, 2007).

Inversely, some mentoring relationships included in introductory music education courses were perceived by the participant to lack an appropriate amount of time, level of individualization, or investment on the part of the mentor. These relationships were treated indifferently by participants, who seemed to shrug them off as merely a requirement or a waste of time. This is in disagreement with Duling's (2000; 2007) finding that required or assigned mentors, in many cases became the most influential. Duling suggests that mentor-mentee relationships which at first seem rudimentary often end up being perceived as the most beneficial. The crucial difference within the present study is likely participants' identification of time. Participants' who shared feelings of indifference for their mentoring relationship often indicated that meetings with their mentor were limited in time, and therefore also limited in scope of content and individualization. Required or assigned introductory music education course mentoring relationships in which both mentor and mentee had sufficient available time for conversation may therefore yield a different result in terms of impact on music teaching efficacy beliefs or commitment.

In cases where the participant perceived appropriate conditions to be present, interaction and feedback from mentors had a strengthening influence on participants' music teaching efficacy beliefs (both PMTE and CME), as well as commitment to music teaching. Prior researchers have linked individual mentoring relationships with strong music teaching efficacy beliefs (Bergee, 2002; Chaffin & Manfredo, 2010), however, a second important finding related to mentoring also emerged from Strand II data. Several strongly efficacious participants who did not receive individual mentoring as a part of their introductory music education course had instead sought out or sustained an extracurricular or informal mentoring relationship. This finding is unique, and suggests that the connection between individual mentoring and music teaching efficacy beliefs is perhaps, even more significant than the statistical analysis would imply.

Participants who had extracurricular mentors identified the same qualities (mentor/mentee desire, appropriate time, caring, helpful, individualized feedback) within their mentors as those who had engaged in a required mentoring relationship. Additionally, participants who referenced non-curricular mentoring relationships demonstrated similar strength of commitment and music teaching efficacy beliefs to participants who had productive curricular mentoring relationships. As such, an individual mentoring relationship could perhaps be the most beneficial influence to music teaching efficacy beliefs and commitment. It may also be that required or not, efficacious preservice teachers take the initiative to seek out positive relationships with more experienced teachers. These relationships in turn are beneficial to the development of strong music teaching efficacy beliefs and commitment, creating a type of mentoring-efficacy beliefs/commitment cycle.

Berg (2004) found that second-career novice teachers sometimes seek out mentors whose area of content is different from their own. These mentors may be identified based upon respect they earn from students, their positive outlook, or their supportive nature. While all of the mentoring relationships within the present study were within the content area of music, Berg's finding strengthens the notion that content knowledge (or area of emphasis) may be secondary to qualities such as approachability, helpfulness, and willingness to provide support.

Another facet of findings associated with individual mentoring is related to help seeking behavior, which has been found to have a relationship with efficacy beliefs (Karabenick & Knapp, 1991; Nelson Le-Gall, 1985; Newman, 1994). Adaptive or strategic help seekers are motivated to look for assistance, resources, or knowledgeable others who may be able to assist with a challenge. These learners also tend to be more efficacious and have higher academic standards. In contrast, learners with weaker efficacy beliefs or lower academic standards may have an avoidant help seeking tendency, becoming frustrated or choosing to give up rather than pursuing assistance. Preservice music teachers who sought out or maintained a mentoring relationship outside of curricular requirements seem to fit the adaptive/strategic help seeking profile, while participants who had no curricular mentoring and did not choose to seek out a mentor may have more of an avoidant tendency.

Field experience.   Field experiences, primarily in the form of K-12 observation, were identified by participants as having the potential for both strengthening and weakening music teaching efficacy beliefs and commitment. Smolleck and Mongan (2011) and McDowell (2007) similarly noted that preservice teachers identified field experience as positively impacting their teaching efficacy beliefs. That is, preservice teachers become more confident in their own teaching capabilities through observation of practicing teachers. Correspondingly, field

experience in combination with coursework has been found to lead to an increase in professional commitment (Allen, 2003). While time spent in K-12 classrooms was positively correlated with music teaching efficacy beliefs within this study, qualitative analysis served a clarifying and explanatory function in terms of the elements of K-12 observation perceived as most beneficial.

Bandura (1977b) classifies learning through observation as "vicarious," stating that "people do not rely on experienced mastery as the sole source of information" in the development of efficacy beliefs. Vicarious learning encompasses all forms of observing others: performance, actions, or behaviors. This term accurately portrays the observational learning that participants identified as an important aspect of field experience as well as peer teaching. All field experience based learning was not purely vicarious, however. Although following a lesson plan, note taking protocol, or other guide can still be classified as vicarious learning, participants also cited participation and taking on small teaching roles within the context of field observations. In such cases, participants were actually experiencing a type of vicarious-enactive mastery hybrid, learning by observing an in-service teacher while also practicing modeling (participating) for students or other small teaching roles (playing Orff instruments with a small group, conducting sectionals).

In this case, as in many stage theories, it may be helpful to conceive of Bandura's sources of efficacy beliefs as less compartmentalized, and instead on more of a continuum. Lave and Wenger (1991) describe peripheral involvement in a community of practice. Individuals, although not full participants within a particular community, still learn through a combination of passive and active involvement. This describes several participants' experiences in K-12 classrooms, a combination of observation (passive role), or vicarious learning, and small degrees of participation. Both vicarious and enactive mastery experiences can contribute to preservice

teachers' efficacy beliefs, however there are many instances in which a hybrid, or "peripheral involvement" role may be possible, existing somewhere between vicarious and enactive mastery on the field experience continuum. In such cases, preservice music teachers may benefit from the combination of vicarious learning and participation in some permutation of a music teacher role.

One participant who had a particularly strong relationship with his mentor teacher noted that he was never "just observing" in his K-12 classroom. His observations consisted of active engagement in the lesson by following along with his mentor teacher's lesson plan, participating in rehearsal along with students, and eventually, conducting short sectionals. This participant's experience highlights three possibilities that make up a continuum of field experience. Other participants described guided observation through the use of a note taking protocol, or working with small groups of students on a project within the context of the larger class. Although music education coursework typically includes either observation *or* teaching in a K-12 classroom, it may be helpful to conceive of field experience in terms of a broader range of activities.

Participants identified classroom context (familiarity, or perceived success of the lesson being observed), structure of the observation (guidance through note-taking or participation), and the presence of absence of follow-up discussion as determining factors in how a field experience was perceived. In particular, participants reported that guidance in the form of note-taking, or participation in the lesson being observed shaped the types of things they noticed and often contributed to a more positive impression of the classroom than passive observation alone. Similarly, in instances where participants were encouraged to debrief after a field observation through class or mentor discussion, they noted appreciating having the chance to ask questions or share reflections. The process of follow-up discussion shaped participants' perceptions of their field observations.

Each of these characteristics has been documented to some extent through prior research. Context plays a role, with participants often citing observation of strong pedagogues as having a positive influence on their teaching efficacy beliefs (Jeanneret, 1997). Commitment may also be influenced by time spent in observations, classroom environment and other contextual factors (Austin & Miksza, 2012; Coldarci, 1992). Similar to the finding that participants appreciated guidance or supported observation experiences, Conway and Hodgman (2010) suggest that preservice teachers should be provided with an observation protocol and/or reflection guide when engaging in field experiences. Prior researchers have also determined that topic-specific mentoring and discussion following K-12 observations lead to a more productive outcome than observation alone (Bergee, 2002; Chaffin & Manfredo, 2010; Hagen et al., 1998). The unique finding in the present study therefore is the degree to which, left unsupported, field experiences had the potential to have a weakening impact upon music teaching efficacy beliefs or commitment, or even to serve as a deterrent to a participants' consideration of a particular teaching environment.

Field experiences in which the classroom context was perceived to be challenging or unfamiliar typically left participants questioning their degree of desire or potential for success within a similar environment. Webb (2012) highlighted the concept of a "pedagogical comfort zone" wherein high school peer tutors demonstrated a desire to teach concepts or areas with which they were comfortable, while leaving other issues untouched due to a lack of confidence or familiarity. When classroom observations are not structured in a manner that encourages discussion, questioning, or participation, preservice music teachers may too retract into a comfort zone, discounting observations in less familiar classrooms as too challenging or a poor fit for

their strengths. Mediated through guided note taking or follow-up discussion, however, participants were more often able to identify positive or beneficial elements of such observations.

In instances where no guidance or follow-up was present, participants' initial impressions of the classroom context left a lasting impression. The notion that unmediated observations in unfamiliar classroom environments may be a deterrent to the development of strong music teaching efficacy beliefs strikes a chord with the findings of some prior researchers. Because preservice teachers are unlikely to feel success in a teaching environment where they lack familiarity or content knowledge (Lin, Gorrell, & Taylor, 2002; Smolleck & Mongan, 2011; Swackhamer, 2009), unguided observation is likely to leave the impression: familiar = positive impression, potential for success; unfamiliar or challenging = negative impression, lack of potential for success.

Implications.   Participants' music teaching efficacy beliefs and commitment to music teaching were impacted—both strengthened and weakened—by a variety of factors including past experiences, course content, peer teaching, field experience, and individual mentoring. Participants identified several areas that have direct implications for practice regarding the planning, structuring, and teaching of introductory music education courses.

Past experiences.   Prior experiences shape preservice music teachers' selection of a music education degree program. Some participants noted having past teaching experiences which served to strengthen their music teaching efficacy beliefs, however nearly all participants cited past performance experiences as influential in their choice and commitment to become a music teacher. Musician and teacher identity, though related, develop differently and may be impacted by differing elements (Isbell, 2007). Preservice music teachers should be challenged to acknowledge and explain the ways in which musicianship experiences contribute to their desire

to teach. Discussion of musician and teacher (or music teacher) identity may facilitate awareness and strength in preservice music teachers' developing identities and beliefs.

Course content. Content knowledge plays a role in the development of music teaching efficacy beliefs. Although teaching experience is often the primary focus of research in teaching efficacy beliefs, the role of class time in supporting and influencing these beliefs should not be diminished. Preservice music teachers identify knowledgeable music education faculty as facilitators of new skills and understandings, which in turn are put into practice through observation, teaching, and other clinical experiences.

This highlights the importance of strong pedagogy and instructional practice within music teacher education coursework. Several participants cited their introductory music education course instructor as a positive model for teaching persona, delivery of instruction, or strategy use. Further, introductory music education course content should be varied and unbiased, such that preservice music teachers are exposed to and challenged by ideas and approaches they may not have previously considered. The need for a range of content strengthens the case for collaborative course design. While a single instructor's own background or area of expertise will likely influence course design, collaboration by multiple faculty may contribute to a more well-rounded, and ultimately effective, introductory course which serves as a foundation the development of ideas and beliefs as well as a springboard into the music teacher education program.

Peer teaching. Peer teaching is a widely accepted means of practicing lesson planning and pedagogical skills within a teacher education program. Based on feedback from the music teacher educators who participated in the present study however, it is clear that the amount of time and thought that goes into the structuring of such activities is varied. At the introductory

level, there is a need for controlled peer teaching episodes—short periods of teaching wherein expectations are clear and preservice music teachers are set up for success. A peer teaching episode with too long a duration or too little guidance could be detrimental to music teaching efficacy beliefs, particularly during students' first music education course experience. Group lesson planning and teaching assignments may also be helpful, particularly in the first peer teaching experience at the introductory level. Participants enjoyed collaborating interacting with peers to plan and execute a peer teaching lesson, and felt that this process helped to build confidence for planning and teaching independently.

Given the significant implications of peer interaction in the construction of knowledge and development of music teaching efficacy beliefs, care should be taken to design experiences in which peers are able to work collaboratively, providing both positive feedback and constructive criticism. Music teacher educators should also monitor closely the quality and tone of discussion and feedback. While interaction, feedback, and discussion following peer teaching were cited as helpful, guidelines for productive feedback should be discussed. Both instructor and peer feedback have the potential for shaping music teaching efficacy beliefs, particularly in a public forum. Although constructive criticism is both necessary and helpful, course instructors should consider the ways in which criticism is delivered and received. This stems both from the setting of class norms, and from differentiating based upon knowledge of individual students' tendencies. Feedback that is perceived as overly negative, or comparison of one teacher candidate to another has the potential to damage confidence and weaken music teaching efficacy beliefs with a lasting effect. With careful design however, peer teaching can be a tool by which preservice music teachers are able to autonomously plan and teach, experiencing the pedagogical

process within a controlled environment and building stronger music teaching efficacy beliefs that apply in K-12 teaching contexts.

Mentoring.   Individual mentoring as a part of an introductory music education course can undoubtedly be a support for the development of stronger music teaching efficacy beliefs. However if preservice music teachers perceive their mentoring experience to be generic, or perceive their mentor to be unengaged in the mentoring process, the mentoring relationship will likely have no impact at all. Although brief, individual meetings between students and course instructors may be necessary over the course of a semester, instructors should note that these meetings do not serve the same function as a true mentoring relationship. Preservice teachers are more likely to perceive such meetings as utilitarian, rather than helpful or individualized. Although the daily demands of university teaching include distractions and multitasking, music teacher educators should note that preservice music teachers in the present study noticed and appreciated focused time and attention from their course instructor or other mentors. Time that is "carved out" for individualized mentoring will not be wasted. Attention, counsel, and feedback from an invested mentor seems to be one of the most effective ways of cultivating both music teaching efficacy beliefs and commitment. Conversations free from outside interruptions, in which concerted effort is made to invest and provided individualized attention or feedback are more likely to strengthen both music teaching efficacy and commitment.

Although some participants specifically cited course instructors or K-12 teachers as influential mentors, it is unclear to what extent other parties (e.g., other music education faculty, graduate teaching assistants) are involved in mentoring introductory music education students. Given the time constraints of most music education faculty's professional responsibilities, as well as the size of some introductory music education courses (20-50 students per section), it

may be beneficial to explore alternative options for individual mentoring. Realistically, instructors cannot necessarily mentor each student enrolled in the course in the manner identified by participants as most beneficial for the cultivation of music teaching efficacy beliefs and commitment. Older peer mentors and graduate teaching assistants may (instead, or in addition) be advantageous mentors for introductory music education students, bringing they types of knowledge and investment identified by participants as helpful. Additionally, exploration of small group mentoring or use of technology for long distance interaction with K-12 teacher mentors may produce positive results. This is best considered on an institutional level, as differing size, location, and other factors play a role in the types of mentoring relationships that may be feasible.

Many participants mentioned specific mentoring relationships, conversations, or other interactions that they perceived as having a direct and positive impact on their music teaching efficacy beliefs or commitment to teaching. In many cases, these relationships were a direct result of a curricular requirement that was a part of an introductory music education course. However, several efficacious participants who did not have an individual mentoring relationship as a part of their introductory music education course identified an informal/extracurricular mentor with whom they had positive interactions. It is clear that required mentoring (included in course curriculum) can have a positive impact on preservice music teachers' beliefs. Given the finding about extracurricular mentors however, it is also possible that efficacious or committed undergraduates might exhibit help seeking behavior, seeking out mentoring relationships and pursuing new knowledge whether curricular or non-curricular.

Assigned preservice music teacher mentors are likely selected by a course instructor or music education faculty member based upon their content knowledge, outstanding pedagogy, or

alignment with university curriculum. Non-curricular mentors however, fall outside of university guidelines, and may or may not align with the philosophy, approach, or content of music teacher education curricula. Because both types of mentoring relationships have the potential to positively impact preservice music teachers' music teaching efficacy beliefs, neither should be discouraged. Interaction with individuals of differing beliefs and philosophies of teaching is realistic preparation for entry into the professional community. Preservice music teachers should be encouraged to build relationships with multiple mentors as opportunities present, taking initiative and creating a network of support and resources which will contribute positively to their development.

Field experience. K-12 observation is an important contributing factor in the development of music teaching efficacy beliefs. A unique recommendation stemming from findings in this study, however, is that care should be taken to mediate field experience through guided note taking, participation, mentoring, class discussion, or other course content. Undergraduate participants who experienced structured or directed field experience (specific questions to answer or lesson elements be aware of) expressed a perception that field experiences were beneficial, while those who participated in unstructured observations seemed to glean less from the experience.

Florio-Ruane (1990) suggests that preservice teachers require support in learning to interpret the events and activities within a K-12 classroom. Preservice teachers may benefit from coaching in observation techniques including how to approach noticing the totality of events within a music class (Miranda, Robbins, & Stauffer, 2007). Engaging in field experience as a participant observer may also allow preservice teachers to perceive, describe, and understand field experiences in greater depth and nuance than would be possible through observation alone.

While field experience is often discussed in terms of either observation or teaching, it may be helpful to conceptualize field experience as more of a continuum. Introductory music education students, though most often observing, benefit from participation or experience with small teaching roles, while older undergraduates who typically have more field teaching experiences may also benefit from observing.

Although preservice music teachers may identify field experiences as good or bad, positive or negative, these classifications do not always have such a dichotomous lasting impact. For example, an observation perceived as "positive," while immediately validating from a commitment perspective, may in fact be so similar to a preservice teacher's own background that it has no impact upon considerations regarding fit or success within a future teaching position. Contrastingly, an observation that leaves a surprising or "negative" impression may lead to questioning of previously held beliefs, consideration of new possibilities, and a more mature understanding of the realities of K-12 music teaching. Particularly at the introductory level, all observations should include activities that focus preservice music teachers' attention upon specific elements or processes associated with teaching music. If guided and mediated through follow-up discussion, any field experience can present opportunities for productive support of developing music teaching efficacy beliefs.

Preservice music teachers who observed challenging or unfamiliar classroom environments also indicated a desire to visit classrooms where they could more readily view themselves achieving success. This highlights a need for varied field experience, including both familiar and unfamiliar contexts, especially within an introductory music education course. Observation in multiple types of classrooms exposes preservice music teachers to a spectrum of

possible K-12 teaching opportunities, laying important groundwork of preparation for success in a diverse array of teaching contexts.

In cases of observations within classroom contexts to which they are accustomed, preservice music teachers should also be encouraged to "make the familiar strange." Preservice teachers have, throughout the course of their own K-12 education, engaged in apprenticeship of observation (Lortie, 1975). This phenomenon has been used to explain why many teachers approach the classroom in a manner similar to the way they were taught. Preservice teachers may feel that they are already aware of how to approach or handle a particular situation (i.e., "I know how to teach band, I've been in band since fifth grade!"). By observing with a critical or questioning eye rather than making assumptions or taking anything for granted, noticing and describing details that may on the surface seem mundane. For example, preservice music teachers may benefit from being challenged to describe and reflect upon a well-known process (e.g., tuning an orchestra) in minute detail, pondering the reasons for each aspect of the process, as well as the progression of events. An assignment of this type requires effort and practice, but may prompt preservice teachers to challenge their own assumptions or past experiences, giving way to new ideas.

There is also a need for careful selection of field observations for introductory music education students. While music teacher educators should certainly not present an inaccurate or overly optimistic portrait of K-12 music teaching, care should be taken to observe music teachers who are successful within their school context, who demonstrate a variety of pedagogical approaches, and who are committed to their career in music teaching. If introductory music education courses are to serve as an arena to strengthen teaching efficacy beliefs and professional commitment, observation of successful and committed teachers should be a top priority.

Class discussion following K-12 observations contributes to the productivity and impact of the field experiences, providing an arena to reflect, debrief, or refine thinking. A supportive classroom environment, where students are encouraged to take time to consider new information and respond thoughtfully is necessary for productive class discussion. Students should be encouraged to participate actively, providing depth in their explanations and taking ownership of their ideas while allowing for alternative views that may give way to debate. Students also report that active facilitation of class discussion, on the part of an instructor or peer, is helpful in generating productive conversation (weaver & Qi, 2005). In order to encourage deeper thinking and challenge prior assumptions, it may be helpful to experiment with smaller breakout groups or student leadership of post-observation discussion.

Summary of Findings

Findings from this study support the need for introductory music education courses as a part of music teacher education programs. The development of strong music teaching efficacy beliefs and professional commitment has been found to have a significant long-term impact on career success and longevity (Glickman & Tamashiro, 1982; Jones & Parkes, 2009; Russell, 2008). It is therefore beneficial to begin nurturing these constructs as early as possible within the music teacher education program. This study demonstrates the potential of introductory music education course content and experiences, provided that they are appropriately structured and perceived, to positively impact preservice music teachers' music teaching efficacy beliefs and commitment to teaching. The inclusion of a thoughtfully designed introductory music education course can have a significant positive influence on preservice music teachers' confidence, commitment, and success in K-12 music teaching.

The following is a summary of findings organized by original quantitative and qualitative research questions:

1. What is the current status of introductory music education courses with respect to content, amount and type of teaching and field experiences, and year/semester offered in selected Bachelor of Music Education degree programs in the United States?

   - Introductory music education courses are typically offered during the freshman year, with a number of institutions offering a sophomore level course. Courses include a wide variety of content, and are intended to provide an overview of knowledge and competencies necessary for success in K-12 music teaching.

   - Introductory music education courses are most often structured in a seminar format, including a mixture of lecture, class discussion, peer teaching, and other

activities.

- The majority of introductory music education courses include a field experience component, with the most common type of field experience being observation in multiple K-12 music classrooms. The number of hours spent in field experience varies greatly.

2. What is the status of preservice music teachers' music teaching efficacy beliefs while enrolled in an introductory music education course?

- Introductory music education students' music teaching efficacy beliefs can be reliably divided into two components—one encompassing personal music teaching competencies, and the other involving issues related to classroom management.

- Music teaching efficacy beliefs may be strengthened or weakened through observation of peers of K-12 teachers (vicarious learning), individual mentoring, peer interactions (verbal persuasion), or teaching experiences (enactive mastery). The quality of the experience, as well as the individual's perception of success contributes to a strengthening or weakening impact.

3. What is the status of preservice music teachers' commitment to music teaching while enrolled in an introductory music education course?

- Introductory music education students are generally committed to music teaching as a career. Commitment may be a slightly more resilient construct, not as readily influenced as music teaching efficacy beliefs.

- Observation of peers or K-12 teachers, as well as individual mentoring may have a positive impact on commitment, though in some instances, each type of activity

was found to have no impact at all.

4. What, if any relationships exist between preservice music teachers' music teaching efficacy beliefs and commitment to music teaching while enrolled in an introductory music education course?

   • Music teaching efficacy beliefs and commitment to music teaching are positively correlated. Preservice music teachers who were more efficacious participants tended to also be more committed, although this was not always the case.

5. What, if any other introductory music education course components have a relationship with preservice music teachers' music teaching efficacy beliefs or commitment?

   • In some instances, participants were strongly committed to music teaching in spite of weaker music teaching efficacy beliefs, or less committed in spite of stronger music teaching efficacy beliefs. The former was typically attributed to lack of experience with K-12 observation or teaching, while the latter was more often due to the viability or desirability of alternative career paths.

   • Both music teaching efficacy beliefs and commitment to music teaching were positively correlated with field experience hours, suggesting that time spent in K-12 music classrooms may have a positive relationship with the development of these constructs.

   • Peer teaching and individual mentoring had a strengthening impact on music teaching efficacy beliefs, while mentoring also positively influenced commitment to music teaching.

6. What is the nature of the activities and relationships that preservice music teachers experience as a part of an introductory music education course?

- Preservice music teachers identify the need for sufficient time in developing beneficial mentoring relationships. Mentors perceived as invested, caring, and helpful are more likely to be identified as contributing to the development of stronger music teaching efficacy beliefs and/or commitment. Preservice music teachers also appreciate the individualized feedback of a mentoring relationship, contrasting this type of attention with larger group or class discussions.

- The context of K-12 observation plays a role in preservice music teachers' perception of the field experience. Context may leave a lasting impression, however, perceptions may also be shaped by guided observation in the form of participation or note taking, as well as through follow-up discussion.

7. What introductory music education course activities or experiences do preservice music teachers perceive as contributing to their music teaching efficacy beliefs or commitment to music teaching?

- Course content played a role in the development of preservice teachers' music teaching efficacy beliefs. Participants cited the importance of new knowledge in gaining teaching confidence.

- Peer teaching had the capacity to influence participants' music teaching efficacy beliefs either positively or negatively. Opportunities to gain teaching experience, as well as peer interaction and peer or instructor feedback were viewed as strengthening influences. Public, negative feedback (in front of class) was perceived as a weakening influence on music teaching efficacy beliefs.

- Individual mentoring had a strengthening impact on both music teaching efficacy beliefs and commitment. Participants identified appropriate amounts of time as

well as mentor and mentee investment as crucial for a productive mentoring relationship. The most effective mentors were identified by participants as caring (invested in the mentee's well-being and development), helpful (knowledgeable, and willing to share knowledge or experiences), and able to provide individualized attention or feedback.

- Field experiences, including both teaching and observation positively impacted participants' music teaching efficacy beliefs and commitment. In some cases, observations of less successful or less familiar K-12 contexts had a weakening impact on music teaching efficacy beliefs, although these experiences were less likely to damage commitment to music teaching. Field experiences mediated by mentoring or class discussion were viewed as more beneficial than those with less structure or direction.

8. What background or non-curricular activities or experiences do preservice music teachers perceive as contributing to their music teaching efficacy beliefs or commitment to music teaching?

- Preservice music teachers cite past musical successes, and to some extent, teaching or leadership experiences as having contributed to the development of their music teaching efficacy beliefs. These experiences may also influence the decision to pursue a music education degree.

- Efficacious preservice music teachers who did not experience individual mentoring as a part of their introductory music education course often sought out or maintained mentoring relationships outside of coursework, seeking feedback and guidance from a more experienced teacher who they perceived to be invested

in their development as a music teacher.

- Non-curricular teaching experiences may also impact music teaching efficacy beliefs or commitment either positively or negatively. Similar to curricular teaching experiences, teaching experiences perceived as successful are more likely to benefit the development of strong music teaching efficacy beliefs, while teaching experiences perceived as unsuccessful or otherwise negative give rise to questioning or doubt, and may damage music teaching efficacy beliefs or commitment to teaching.

Recommendations for Future Research

Findings from this study have illuminated important insights regarding the experiences of introductory music education students' course experiences, music teaching efficacy beliefs, and commitment to teaching. More research is needed, however, further explaining these constructs. The following are recommendations for the design of future studies.

Theoretical considerations. The following recommendations might be built into future investigations of preservice music teacher's efficacy beliefs and commitment.

1. Item topics and wording should be adjusted in order to determine whether general teaching efficacy beliefs (global belief) or other facets of music teaching efficacy beliefs can be reliably measured at the preservice level.

2. It is evident that there is a relationship between music teaching efficacy beliefs and commitment. Due to variances in this relationship, as well as the myriad other types of beliefs held by preservice teachers, possible relationships between efficacy beliefs or commitment and other psychological constructs should be investigated.

3. Given the potential negative or inaccurate connotations of the word "persuasion," researchers who study efficacy beliefs may explore alternative terms for what Bandura classifies as "verbal persuasion." Verbal suggestion or verbal prompting are possible alternatives that maintain the quality of the experience while allowing for the important aspects of learner interpretation and autonomy.

4. Although within this study, K-12 teaching experience was rare, the notion of vicarious learning (observation) giving way to application of new knowledge through enactive mastery experience (teaching) was highlighted by a small number of participants. Further inquiry is needed to investigate this progression a) within the

context of a single course or semester, and b) over the course of multiple courses or semesters.

5. There is a need for research investigating possible connections between music teaching efficacy beliefs and effectiveness in music teaching. Future studies of preservice music teachers should compare the teaching performance or proficiency of efficacious novices to those who are less efficacious.

6. Many participants classified their perceptions of mentoring or field experiences in a dichotomous manner: positive/negative; helpful, unhelpful. There is a need for further exploration of the developmental nature of these classifications. Perry's scheme of intellectual and ethical development may be a framework within which such perceptions could be examined (Perry, 1970). In particular, future studies might focus on the transition from dualism (dichotomous perceptions of right/wrong, good/bad with little to no tolerance of uncertainty) to multiplicity (where the notion of multiple "right" answers and recognition of uncertainty tend to emerge).

7. There is a need for theoretical triangulation (Stake, 1978), both within and among future studies. Comparison of findings related to music teaching efficacy beliefs and commitment in terms of social constructivism and/or symbolic interactionism would likely illuminate connectivity between concepts from somewhat distinct theories.

    a. Peer interactions, including peer teaching, peer mentoring, and class discussion should be studied within a social constructivist framework. Inquiries of this nature may provide valuable insight regarding the ways in which peer interactions are interpreted, as well as the ways in which peer

feedback or interaction contributes to the co-construction of knowledge or the development of music teaching efficacy beliefs.

b. Although the focus of this investigation was the music teaching efficacy beliefs and commitment of introductory music education students, it would also be illuminating to examine the impact of introductory music education experiences on identity construction using a theoretical framework such as symbolic interactionism (Blumer, 1969). Concepts such as generalized other, significant others, and gesture could be used as a lens through which to examine mentoring, field experiences, peer teaching, and other introductory course components, clarifying the relationship between identity construction, music teaching efficacy beliefs, and commitment. Additional research is needed in order to investigate the possible impact of primary and secondary socialization upon music teaching efficacy beliefs and/or commitment. In addition, the notion of significant others is worthy of future study, as participants in the present study identified many individuals—peers, course instructors, studio teachers, K-12 mentors, and past music teachers—as having impacted their music teaching efficacy beliefs in some way.

Longitudinal considerations. The following recommendations address concerns and recommendations related to structure and timing of data collection.

1. The present study was an investigation of introductory music education students during the fall semester. Semester timing was therefore not a consideration in the analysis of student data. Based on feedback from course instructors, it is clear that some introductory music education courses are offered during the spring semester.

Future studies should explore the possibility of multiple data collection points, creating a sample of both fall and spring semester students.

2. It is clear that music teaching efficacy beliefs and commitment are impacted by different types of curricular and extracurricular experiences. A longitudinal study design would therefore be helpful in understanding the ways in which these constructs are impacted across multiple courses or multiple years in a degree program.

3. A longitudinal investigation may also be helpful in illuminating pros and cons of freshman vs. sophomore year introductory music education course offerings. While some contrasts could be made between freshmen and sophomores within this investigation, a longitudinal study would allow for tracking of efficacy beliefs and commitment in cases where an introductory course took place during the freshman year, as well as cases where an introductory course was offered during the sophomore year.

4. In order to gather data that have the most generalizable implications for practice, it is necessary to conduct longitudinal investigations at multiple institutions simultaneously. This could be most readily accomplished through collaborative research teams.

Course factors. The following recommendations address possible considerations for investigating course components in future research.

Mentoring.

1. Ascriptive factors including mentor gender, age, ethnicity, and their relationship with mentoring effectiveness should be investigated. Mentoring relationships in the present

study included both same and different gender partners, as well as more and less near-peer relationships. These factors were not a part of this investigation, however, and should be investigated in subsequent studies.

2. Although some course instructors served as mentors to their students, no data about mentoring relationships was specifically collected from mentors during this study. Data regarding the nature of mentoring interactions was therefore limited. Future research should investigate mentors' perceptions regarding elements necessary for a productive preservice music teacher mentoring relationship. Data could also be collected from mentors in order to uncover specific types of interactions, feedback, or reasons for certain types of interactions.

3. Given the effectiveness of individual mentoring found in this study, as well as the time and other conditions necessary for beneficial mentoring relationships, alternative mentoring models are in need of investigation. Peer mentoring, group mentoring, and video or other forms of long-distance mentoring should be explored in relation to their impact on music teaching efficacy beliefs, commitment to music teaching, and preservice music teacher success or improvement in teaching.

Field experience.

4. Exact parameters of field experiences should be included in subsequent investigation of preservice music teachers' efficacy beliefs and commitment. The present study took into account the type of field experience (observation, teaching), as well as the total number of hours spent on field experience over the course of one semester. Although participants referenced familiar and unfamiliar contexts, positive and negative classroom management experiences, and other contextual factors, this type

of data were not collected from every participant. A more in-depth investigation of field experience may provide important data regarding the most beneficial ways to structure such activities.

5. Although instances within the present study were limited (2 out of 24 interviewees), vicarious learning (observation) may inspire the application of new approaches or pedagogical techniques in enactive mastery (teaching) experiences. Two participants identified strengthened music teaching efficacy beliefs as a result of applying knowledge gained through observation, to their own teaching. Given the appropriate context in which to apply skills or techniques learned vicariously, preservice teachers may experience new successes in teaching. Successful teaching experiences in turn impact music teaching efficacy beliefs. Further investigation is needed in order to explore a) instances of this chain of events as a possible trend across multiple preservice teachers, and b) implications of course design (e.g., applying new techniques within a single semester of field experience, or across multiple semesters of observation and teaching).

Methodological considerations.   The following are recommendations and reflections regarding the methodology of the present study, as well as possibilities for future research.

1. Prior studies on the topic of preservice music teachers' efficacy beliefs and commitment have been primarily quantitative in methodology. Quantitative methods (e.g., questionnaires) can reliably assess efficacy beliefs and commitment. This mixed methods study has illuminated a level of nuance not possible through quantitative measures alone. In addition, the breath of data collected and analyzed throughout the course of this study would not have been possible through qualitative methods alone.

The impact of course experiences upon preservice music teachers' beliefs—no matter the construct—is an extremely complex issue. A mixed methods investigation allows the researcher to ask a greater variety of questions in hopes of more completely describing the impacts of a music teacher education program upon the psyche of preservice music teachers. It should be noted that when executed in a manner that does justice to the methodology, mixed research does not discount the philosophical orientation of one paradigm, nor does one methodology have to take precedence over the other.

a. Mixed methods study design allows for the incorporation of the strengths and forms of inquiry of both qualitative and quantitative methods. Due to researcher training, it may be possible, or even preferable to engage in collaborative research teams in order to best facilitate a robust study design. Working within a collaborative research team may provide a sounding board and forum for peer review of work within the research process, allow for more rigorous study design given researcher expertise, and provide opportunities for the management and analysis of a greater range of data.

b. Provided that researcher training in all three types of methodology— quantitative, qualitative, *and* mixed methods—is sufficient, pursuing a mixed study design as a single researcher can also be a powerful tool. Speaking from experience within the present study, engaging in a solo mixed methods inquiry is taxing, but allows for the type of synthesis that may only be possible through a deep knowledge and understanding of all data.

2. There is a similar need for more qualitative inquiry within the topic of preservice music teaching efficacy beliefs and commitment. Quantitative measures of these constructs provide a reliable snapshot of preservice music teachers' beliefs at a particular point in time. The body of existing quantitative research, particularly concerning efficacy beliefs, is substantial enough to make claims regarding trends related to year in program, level of experience, or demographic factors. Qualitative inquiry however, is needed in order to describe the nuances of these constructs.

3. One limitation of the qualitative strand of this study was that each participant was interviewed only once. Future qualitative studies (case studies, phenomenological inquiries, or narrative research) involving the collection of multiple types of data across a greater amount of time will be helpful in deepening the body of knowledge regarding preservice music teachers' efficacy beliefs and commitment. For example, corroboration between interview and observation data could provide valuable information regarding possible connections between music teaching efficacy beliefs and teaching proficiency.

4. Another area for future qualitative inquiry is the investigation of preservice music teachers who are outliers in terms of their music teaching efficacy beliefs and commitment beliefs. For example, there were a few participants in the present study who were efficacious, but were not committed to music teaching due to interest in a different career path. Case study research is one avenue by which to explore other factors and influences contributing to efficacious (and perhaps, effective) novice teachers' desire to seek a career outside of music education.

Mixed Methods Research: Final Thoughts

Mixed methods research facilitates breadth and depth of findings, as well as connections between multiple strands of understanding within a single study. When studying the complexities of an issue such as music teacher education coursework and the impacts of course experiences upon psychological constructs or beliefs of preservice music teachers, mixed methods research is often an appropriate choice. To suggest that a mixed methods approach is always best would be naive, discounting the strength and rigor of quantitative and qualitative paradigms when employed as single methodologies. However, while quantitative research can provide description of a phenomenon, discussion of relationships among variables, and the establishment of generalizable trends, it does not always allow for a nuanced understanding of quality, context, or individual experience. Qualitative inquiry facilitates nuanced description, as well as richness and depth of understanding. However, a qualitative approach does not typically lead to broad claims or trends that can be utilized to impact practice within a profession.

A balanced and pragmatic approach to research design allows for the selection and combination of methods best suited to a research problem. A mixed methods approach combines freedom and rigor, enabling multiple methods, forms of data, and analysis techniques to be combined for a whole greater than the sum of its parts.

Conclusion

Findings from this study have highlighted several important implications for music teacher education. Introductory music education courses can play a significant role in the development of preservice music teachers' music teaching efficacy beliefs and commitment to teaching. This supports the need for introductory music education courses as a part of music teacher education programs. The development of strong efficacy beliefs and professional commitment has been found to have a significant long-term impact on career success and longevity (Glickman & Tamashiro, 1982; Jones & Parkes, 2009; Russell, 2008). It is therefore beneficial to begin nurturing these constructs as early as possible within the music teacher education program.

Introductory music education course content and experiences have the potential to positively impact preservice music teachers' music teaching efficacy beliefs and commitment to teaching, only if structured in a developmentally appropriate manner. Scaffolded field experiences mediated by discussion, individual or group peer teaching with peer feedback, and individualized guidance by an experienced and invested mentor are among the most effective means of encouraging the development of positive music teaching efficacy beliefs and strong commitment to music teaching. The inclusion of a thoughtfully designed introductory music education course incorporating such experiences can have a significant positive influence on preservice music teachers' confidence, commitment, and success in K-12 music teaching.

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Appendix A

Prior Measures of Teaching Efficacy Beliefs

Teacher Efficacy Scale (Gibson & Dembo, 1984)

Teacher Efficacy

A number of statements about organizations, people, and teaching are presented below. The purpose is to gather information regarding the actual attitudes of educators concerning these statements. There are no correct or incorrect answers. We are interested only in your frank opinions. Your responses will remain confidential.

INSTRUCTIONS: Please indicate your personal opinion about each statement by circling the appropriate response at the right of each statement.

KEY: 1=Strongly Agree 2=Moderately Agree 3=Agree slightly more than disagree 4=Disagree slightly more than agree 4=Moderately Disagree 6=Strongly Disagree

1. When a student does better than usually, many times it is because I exert a little extra effort.   1 2 3 4 5 6

2. The hours in my class have little influence on students compared to the influence of their home environment.   1 2 3 4 5 6

3. The amount a student can learn is primarily related to family background.   1 2 3 4 5 6

4. If students aren't disciplined at home, they aren't likely to accept any discipline.   1 2 3 4 5 6

5. I have enough training to deal with almost any learning problem.   1 2 3 4 5 6

6. When a student is having difficulty with an assignment, I am usually able to adjust it his/her level.   1 2 3 4 5 6

7. When a student gets a better grade than he/she usually gets, it is usually because I found better ways of teaching that student.   1 2 3 4 5 6

8. When I really try, I can get through to most difficult students.   1 2 3 4 5 6

9. A teacher is very limited in what he/she can achieve because a student's home environment large influence on his/her achievement.   1 2 3 4 5 6

10. Teachers are not a very powerful influence on student achievement when all factors are considered.   1 2 3 4 5 6

11. When the grades of my students improve, it is usually because I found more effective approaches.   1 2 3 4 5 6

12. If a student masters a new concept quickly, this might be because I knew the necessary steps in teaching that concept.   1 2 3 4 5 6

13. If parents would do more for their children, I could do more.   1 2 3 4 5 6

14. If a student did not remember information I gave in a previous lesson, I would know how to increase his/her retention in the next lesson.   1 2 3 4 5 6

15. The influences of a student's home experiences can be overcome by good teaching.   1 2 3 4 5 6

16. If a student in my class becomes disruptive and noisy, I feel assured that I know some techniques to redirect him/her quickly.   1 2 3 4 5 6

17. Even a teacher with good teaching abilities may not reach many students.   1 2 3 4 5 6

18. f one of my students couldn't do a class assignment, I would be able to accurately assess whether the assignment was at the correct level of difficulty.

   1   2 3 4 5 6

19. If I really try hard, I can get through to even the most difficult or unmotivated students.

   1   2 3 4 5 6

20. When it comes right down to it, a teacher really can't do much because most of a student's motivation and performance depends on his or her home environment.

   1   2 3 4 5 6

21. Some students need to be placed in slower groups so they are not subjected to unrealistic expectations.

   1   2 3 4 5 6

22. My teacher training program and/or experience has given me the necessary skills to be an effective teacher

   1   2 3 4 5 6

Teacher Confidence Scale (Woolfolk-Hoy, 2000)

ID Code: (**Mother's month and day of birth and her initials**)

Undergrad Degree_____Institution_____Major_____Minor_____

Please list the **High School Advanced Placement** classes you took, if any:_____

Teacher Confidence Scale

INSTRUCTIONS: Please indicate your opinion about each statement by circling the appropriate response at the right of the statement. There are no right or wrong answers. We are interested in your frank opinions. Your responses are confidential.

KEY: 1=Strongly Disagree 2=Moderately Disagree
3=Disagree slightly more than agree
4=Agree slightly more than disagree
5=Moderately Agree 6=Strongly Agree

I am confident in my ability to	Disagree--->Agree
locate resources for preparing mathematics lessons	1 2 3 4 5 6
teach science as a co-inquirer with students	1 2 3 4 5 6
use journals in teaching	1 2 3 4 5 6
construct a web	1 2 3 4 5 6
integrate language arts teaching	1 2 3 4 5 6
use a variety of assessment techniques	1 2 3 4 5 6
determine the academic needs of my students	1 2 3 4 5 6
select appropriate literature for thematic teaching	1 2 3 4 5 6
evaluate students' work	1 2 3 4 5 6
teach effectively in an urban school	1 2 3 4 5 6
facilitate class discussions	1 2 3 4 5 6
establish a feeling of community in my classes	1 2 3 4 5 6
incorporate different activities and curricula into science teaching	1 2 3 4 5 6
develop an assessment rubric	1 2 3 4 5 6
create integrated lessons and units	1 2 3 4 5 6
construct student-centered activities	1 2 3 4 5 6
teach basic concepts of fractions	1 2 3 4 5 6
manage classrooms	1 2 3 4 5 6
teach algebra	1 2 3 4 5 6
use cooperative learning approaches	1 2 3 4 5 6
facilitate students' communication about mathematics (through journals, discussions, etc.)	1 2 3 4 5 6
explain the meaning of standardized test scores to students and parents	1 2 3 4 5 6
implement a variety of science teaching strategies that incorporate inquiry-based learning	1 2 3 4 5 6
develop number sense in children	1 2 3 4 5 6
build learning in science on children's intuitive understandings	1 2 3 4 5 6
connect mathematics to literature	1 2 3 4 5 6
analyze my teaching in an objective and ethical manner	1 2 3 4 5 6
give students concrete experiences in learning mathematics	1 2 3 4 5 6
use media to support teaching and learning	1 2 3 4 5 6
evaluate software for teaching and learning	1 2 3 4 5 6
understand the impact of cultural diversity on classroom content, context, & instructional strategies.	1 2 3 4 5 6
define the social in social studies	1 2 3 4 5 6

Teachers' Sense of Efficacy Scale (Tschannen-Moran & Woolfolk-Hoy, 2001)

Teachers' Sense of Efficacy Scale

Teacher Beliefs	How much can you do?								
Directions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below. Your answers are confidential.	Nothing	Very Little		Some Influence		Quite A Bit		A Great Deal	
1. How much can you do to get through to the most difficult students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2. How much can you do to help your students think critically?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
3. How much can you do to control disruptive behavior in the classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
4. How much can you do to motivate students who show low interest in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
5. To what extent can you make your expectations clear about student behavior?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
6. How much can you do to get students to believe they can do well in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7. How well can you respond to difficult questions from your students ?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
8. How well can you establish routines to keep activities running smoothly?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
9. How much can you do to help your students value learning?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
10. How much can you gauge student comprehension of what you have taught?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
11. To what extent can you craft good questions for your students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
12. How much can you do to foster student creativity?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
13. How much can you do to get children to follow classroom rules?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
14. How much can you do to improve the understanding of a student who is failing?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
15. How much can you do to calm a student who is disruptive or noisy?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
16. How well can you establish a classroom management system with each group of students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
17. How much can you do to adjust your lessons to the proper level for individual students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
18. How much can you use a variety of assessment strategies?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
19. How well can you keep a few problem students form ruining an entire lesson?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
20. To what extent can you provide an alternative explanation or example when students are confused?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
21. How well can you respond to defiant students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
22. How much can you assist families in helping their children do well in school?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
23. How well can you implement alternative strategies in your classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
24. How well can you provide appropriate challenges for very capable students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

Appendix B

Preservice Music Teacher Efficacy Scale (PMTES)

Section I

Please indicate your level of agreement with each of the following statements about *yourself as a music teacher.*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
I am confident in my ability to locate resources for preparing music lessons						
I am continually learning better approaches to teaching music						
I can create effective lessons for music classes						
I can control disruptive behavior in the music classroom						
I have enough knowledge to effectively teach basic musical concepts						
I have the necessary skills to teach music						
I can convey clear expectations about music student behavior						
I am typically able to answer students' music questions						
I can create lesson plans using State or National music standards						
I can use established routines to keep activities running smoothly						
I can get music students to follow classroom rules						
When a student has difficulty with a musical concept, I am usually at a loss as to how to help						
I can evaluate students' musical knowledge						
I can calm a student who is disruptive or noisy						
I am confident in my ability to implement new approaches to teaching music						
I can keep a few problem students from ruining an entire music lesson						
I am confident in my ability to seek out new strategies for teaching musical concepts						
I can respond effectively to defiant or challenging students						
I can develop a rubric to assess students' musical performance skills						
My effort as a music teacher has an impact on students' achievement						
I am confident that my classroom management abilities will continue to improve						
My teaching approach allows students to quickly master new musical concepts						

Section II

Please indicate your level of agreement with each of the following statements about music teachers *in general*.

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
Music teachers can make a difference in students' musical achievement						
When students' performance improves, it is most often due to the music teacher having found a more effective teaching approach						
If students are under---achieving in music, it can be blamed on their teacher						
Increased effort in music teaching produces little change in some students' achievement						
If parents comment that their child is showing more interest in music, it is most likely due to their music teacher						
Even the best music teachers cannot help some students learn music						
Music teachers can make a difference in students' level of interest in music						
When a student does better than usual in a music class, it is because the teacher exerted a little extra effort						

Section III

Please indicate your level of agreement with each of the following statements about *yourself as a music teacher.*

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
I want to be a music teacher	☐	☐	☐	☐	☐	☐
I can see myself teaching music 5 years from now	☐	☐	☐	☐	☐	☐
Teaching music will be a satisfying career for me	☐	☐	☐	☐	☐	☐
I am not sure that I want to be a music teacher	☐	☐	☐	☐	☐	☐
I am proud to be a part of the music education profession	☐	☐	☐	☐	☐	☐
I would be happy to spend my whole career teaching music	☐	☐	☐	☐	☐	☐
I am committed to becoming a music teacher	☐	☐	☐	☐	☐	☐
Teaching music is important to me even though my salary could be higher in a different career	☐	☐	☐	☐	☐	☐
I am proud to tell others that I am studying to become a music teacher	☐	☐	☐	☐	☐	☐

Section IV

As a part of your current music education course, have you participated in: (check all that apply)

❑ Peer teaching (planning and teaching to a group of peers/classmates)

❑ Observations in K‑‑‑12 classrooms (observing a K‑‑‑12 teacher in his/her classroom)

❑ Teaching in K‑‑‑12 classrooms (practicum teaching in a K‑‑‑12 classroom)

Do you **currently**: (check all that apply)

❑ Teach private lessons

❑ Teach groups of K‑‑‑12 music students in an extracurricular position (not related to your music education coursework)

❑ Teach or tutor students in a non‑‑‑musical subject area

❑ Serve in a musical leadership position (e.g., section leader, drum major)

❑ Serve in a non‑‑‑musical leadership position (e.g., student government)

Have you in the **past** (including high school experiences): (check all that apply)

❑ Taught private lessons

❑ Taught groups of K‑‑‑12 music students in an extracurricular position (not related to your music education coursework)

❑ Taught or tutored students in a non‑‑‑musical subject area

❑ Served in a musical leadership position (e.g., section leader, drum major)

❑ Served in a non‑‑‑musical leadership position (e.g., student government)

What is your gender? ☐ Female ☐ Male

In which undergraduate degree program are you enrolled?

☐ Music Education

☐ Music Education & Music Performance

☐ Music Performance

What is your major instrument? _____

What is your current year in school?

☐ Freshman ☐Sophomore ☐Junior ☐Senior ☐Senior yr 5+

Would you be willing to participate in a brief follow‑‑‑up interview?

☐ Yes ☐No

If so, please provide your email address:

_____

Appendix C

Institutional Review Board Human Research Committee (IRB/HRC) Approvals

![University of Colorado Boulder logo]

Institutional Review Board
563 UCB
Boulder, CO 80309
Phone: 303.735.3702
Fax: 303.735.5185
FWA: 00003492

09-Nov-2012

Exempt Certification

Prichard, Stephanie
Protocol #: 12-0697
Title: A Mixed Methods Investigation of Introductory Music Education Courses, Preservice Music Teacher Efficacy, and Commitment to Teaching

Dear Stephanie Prichard,

The Institutional Review Board (IRB) has reviewed this protocol and determined it to be of exempt status in accordance with Federal Regulations 45 CFR 46.101(b). Principal Investigators are responsible for informing the IRB of any changes or unexpected events regarding the project that could impact the exemption status. Upon completion of the study, you must submit a Final Review via eRA. It is your responsibility to notify the IRB **prior** to implementing any changes.

Certification Date: 09-Nov-2012
Exempt Category: 2

Click here to find the IRB reviewed documents for this protocol: Study Documents

The IRB has reviewed this protocol in accordance with federal regulations, university policies and ethical standards for the protection of human subjects. In accordance with federal regulation at 45 CFR 46.112, research that has been approved by the IRB may be subject to further appropriate review and approval or disapproval by officials of the institution. The investigator is responsible for knowing and complying with all applicable research regulations and policies including, but not limited to, Environmental Health and Safety, Scientific Advisory and Review Committee, Clinical and Translational Research Center, and Wardenburg Health Center and Pharmacy policies.

Please contact the IRB office at 303-735-3702 if you have any questions about this letter or about IRB procedures.

Vena Dunne, Ph.D.
IRB Manager
Institutional Review Board

University of Colorado Boulder

Institutional Review Board
563 UCB
Boulder, CO 80309
Phone: 303.735.3702
Fax: 303.735.5185
FWA: 00003492

06-Mar-2013

Amendment Acknowledgement - Exempt

Prichard, Stephanie
Protocol #: 12-0697
Title: A Mixed Methods Investigation of Introductory Music Education Courses, Preservice Music Teacher Efficacy, and Commitment to Teaching

Dear Stephanie Prichard,

The Institutional Review Board (IRB) has reviewed the amendment described below and determined that it does not affect the exempt status of this protocol.

Acknowledged Date: 06-Mar-2013

Description of Amendment: Update procedures to include follow-up interviews.

Click here to find the IRB reviewed documents for this protocol: Study Documents

The IRB has reviewed this amendment in accordance with federal regulations, university policies and ethical standards for the protection of human subjects. In accordance with federal regulation at 45 CFR 46.112, research that has been approved by the IRB may be subject to further appropriate review and approval or disapproval by officials of the institution. The investigator is responsible for knowing and complying with all applicable research regulations and policies including, but not limited to, Environmental Health and Safety, Scientific Advisory and Review Committee, Clinical and Translational Research Center, and Wardenburg Health Center and Pharmacy policies. Approval by the IRB does not imply approval by any other entity.

Please contact the IRB office at 303-735-3702 if you have any questions about this letter or about IRB procedures.

Douglas Grafel
IRB Admin Review Coordinator
Institutional Review Board

Appendix D

Introductory Music Education Course Data Questionnaire

Introductory Music Education Course Data

2.

In what state is your institution located?

What is the name of your institution? (optional)

Is your institution public or private?

- ○ Public
- ○ Private

What level of music degree(s) are offered by your institution?

- ○ Bachelor's only
- ○ Bacnelor's & Master's
- ○ Bachelor's, Master's, & Doctorate
- ○ Other (please specify)

Approximately how many undergraduate music education majors are enrolled at your institution?

What is the title of the introductory music education course at your institution?

Introductory Music Education Course Data

How many semester credits do students earn for taking the introductory music education course at your institution?

○ 1

○ 2

○ 3

○ 4

○ 5

○ 6

○ Other (please specify)

[   ]

How many times per week does your class meet?

[   ]

For how long does your class meet (single class length)?

[   ]

In what year do students typically enroll in the introductory music education course at your institution?

○ Freshman

○ Sophomore

○ Junior

○ Senior

○ Other (please specify)

[   ]

In what semester is the introductory music education course offered at your institution? (select all that apply)

☐ Fall semester

☐ Spring semester

☐ Fall quarter

☐ Winter quarter

☐ Spring quarter

☐ Summer quarter

Introductory Music Education Course Data

3. Field Experience

Note: For the purpose of this study, "field experience" is defined as any time spent observing or teaching in K-12 classrooms (off-campus).

Do students complete a field experience requirement when enrolled in the introductory music education course at your institution?

○ Yes

○ No

Introductory Music Education Course Data

4. Field Experience Information

What type of field experience do students complete? (select all that apply)

☐ K-12 observation, 1 school

☐ K-12 observation, multiple schools

☐ K-12 teaching, 1 school

☐ K-12 teaching, multiple schools

☐ Other (please specify)

How many hours of field experience do students complete?

Observation hours (approximate):

Teaching hours (approximate):

Total required hours:

Introductory Music Education Course Data

5.

Do you use a textbook in your introductory music education course?

○ Yes

○ No

If yes, please indicate text title here:

[   ]

Please indicate the basic format of your introductory music education course (select as many as apply):

☐ On-campus lecture

☐ On-campus lecture/seminar (includes class discussion)

☐ On/off-campus hybrid (some classes held in K-12 schools)

☐ Class is held entirely off-campus (in K-12 schools)

☐ Other (please specify)

[   ]

Do students engage in peer teaching as a part of this course (planning and teaching a lesson to a group of classmates)?

○ Yes

○ No

If yes, please indicate number and length of peer teaching episodes

[   ]

Introductory Music Education Course Data

Please indicate how much emphasis is given to each of the following areas in your introductory music education course:

Amount of emphasis

History of music education	[▼]
Music education philosophy	[▼]
Child/learning psychology	[▼]
Classroom management	[▼]
Lesson planning	[▼]
Incorporation of technology	[▼]
Peer teaching	[▼]
Teacher-student relationships	[▼]
Conducting	[▼]
Discipline-specific issues (e.g., band, choir, orchestra, general music)	[▼]

Other (please specify multiple areas, if necessary)
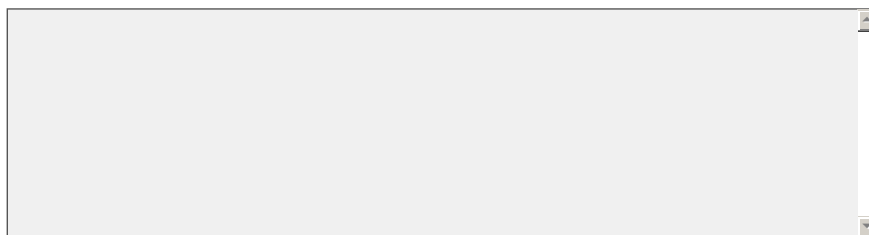
[text box]

Introductory Music Education Course Data

7.

Are there any other details about your institution's introductory music education course that you would like to share? If so, please use the textbox below.

○ Yes

○ No

If yes, please describe here

Introductory Music Education Course Data

6. Demographic Information

What is your academic rank?

○ Lecturer - Music Education

○ Instructor - Music Education

○ Assistant Professor - Music Education

○ Associate Professor - Music Education

○ Professor - Music Education

○ Other (please specify)

[   ]

How long have you been employed by your current institution? Please indicate number of years, including the 2012-2013 academic year.

[   ]

What is your primary area of emphasis (select all that apply)?

☐ General Music

☐ Band

☐ Orchestra

☐ Choir

☐ Other (please specify)

[   ]

How many years of music teaching experience (including the 2012-2013 academic year) do you have at each of the following levels?

	Number of years
Elementary	[▼]
Middle School/Junior High	[▼]
High School	[▼]
College/University	[▼]

How many times have you taught the introductory music education course at your institution (including this semester)?

[   ]

Appendix E

Informed Consent

Informed Consent for Course Instructors

Introductory Music Education Course Data

1. A Mixed Methods Investigation of Introductory Music Education Courses

Below is the informed consent form for this study.

Your participation in this research study is voluntary. Please think about the information below carefully. Feel free to ask questions before making your decision whether or not to participate. If you decide to participate, you will be asked to verify your agreement electronically by clicking the "I agree" button.

The purpose of this study is to gather information about introductory music education courses. If you agree to participate, you will be asked to complete a brief questionnaire. The questionnaire will take approximately 11 minutes to complete.

You may withdraw from this study at any time. If you choose to withdraw, your questionnaire will be removed from the study completely.

There are no risks to you as a participant in this study. There are no direct benefits to you as a participant in this study, however, your participation will provide valuable information about preservice music teacher preparation.

Your questionnaire responses will be completely confidential. No identifying information will be included in the write-up of this study.

You will not be compensated for your participation in this study.

Taking part in this study is your choice. You may choose either to take part or not take part in the study. If you decide to take part in this study, you may leave the study at any time. No matter what decision you make, there will be no penalty to you in any way.

For questions, concerns, or complaints about this study, call (571) 236-4183

Signing the Consent Form:
I have read (or someone has read to me) this form. I am aware that I am being asked to be in a research study. I have had a chance to ask all the questions I have at this time. I have had my questions answered in a way that is clear. I voluntarily agree to be in this study. I am not giving up any legal rights by signing this form. I will be given a copy of this form.

Introductory Music Education Course Data

Clicking the "I agree" button signifies that you have read this consent form, and are agreeing to participate in this study.

○ I agree to participate in this study

Informed Consent for Undergraduate Students

University of Colorado Boulder
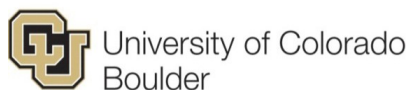
CONSENT TO PARTICIPATE IN A RESEARCH STUDY

Study Title: A Mixed Methods Investigation of Introductory Music Education Courses Preservice Music Teacher Efficacy, and Commitment to Teaching

Principal Investigator: Stephanie Prichard

Department: Music   *Contact Information:* (571) 236-4183   stephanie.prichard@colorado.edu

Your participation in this research study is voluntary. Please think about the information below carefully. Feel free to ask questions before making your decision whether or not to participate. If you decide to participate, you will be asked to sign this form and will receive a copy of the form.

- The purpose of this study is to gather information about your confidence and experiences as a preservice music teacher. If you agree to participate, you will be asked to complete a brief questionnaire. The questionnaire will take approximately 7 minutes to complete.
- You may withdraw from this study at any time. If you choose to withdraw, your questionnaire will be removed from the study completely.
- There are no risks to you as a participant in this study. There are no direct benefits to you as a participant in this study, however, your participation will provide valuable information about preservice music teacher preparation.
- Your questionnaire responses will be completely confidential. No identifying information will be included in the write-up of this study.
    - *Aside from the researcher, the Office for Human Research Protections or The University of Colorado Boulder Institutional Review Board may look at your questionnaire to ensure that research is being conducted safely and legally.*

Compensation

- You will not be compensated for your participation in this study.

Participant Rights

- Taking part in this study is your choice. You may choose either to take part or not take part in the study. If you decide to take part in this study, you may leave the study at any time. No matter what decision you make, there will be no penalty to you in any way. You will not lose any of your regular benefits. We will tell you if we learn any new information that could change your mind about being in this research study. For example, we will tell you about information that could affect your health or well-being.

Contacts and Questions

- For questions, concerns, or complaints about this study, call (571) 236-4183

Signing the Consent Form

I have read (or someone has read to me) this form. I am aware that I am being asked to be in a research study. I have had a chance to ask all the questions I have at this time. I have had my questions answered in a way that is clear. I voluntarily agree to be in this study. I am not giving up any legal rights by signing this form. I will be given a copy of this form.

Name of Participant (printed) _____

Signature of Participant_____Date _____

Appendix F

Introductory Music Education Course Instructor Letter: Invitation to Participate

Dear Dr. _____,
I am conducting a study of introductory music education courses, and the relationship of course structure and content to preservice music teacher efficacy beliefs and commitment to teaching. This dissertation project, which is being supervised by Dr. James Austin and Dr. Margaret Berg, consists of two main components:

1. A student questionnaire (paper), to be administered to students in introductory music education courses. Mean completion time for this measure is 6.5 minutes, and no students in the pilot sample took more than 9 minutes to complete it.

2. An instructor questionnaire (online), for the purpose of collecting specific information about the introductory music education course at your institution. Approximate completion time for this measure is approximately 9 minutes.

If you are willing to facilitate administration of the student questionnaire, please let me know how many traditional undergraduate students (not post-BA licensure or masters-plus-licensure students) are enrolled in your introductory music education course. Also indicate whether you prefer that I (a) send you the appropriate number of copies of the questionnaire, script and informed consent form via express mail, or (b) email you a PDF of each document so that you can make the appropriate number of copies for your class. Either way, I will provide you with an addressed and postage paid return envelope.

If you are willing to participate in the online questionnaire (for course instructors), please click on the link that appears below.
                            http://www.surveymonkey.com/sample/personalizedlink

The University of Colorado IRB Certification [#12-0697] is attached to this email.
I understand that this is a busy time of the academic year, but would greatly appreciate your assistance with this project given the important implications for music teacher education and undergraduate curricula. If you have any questions about the project or would like to receive a summary of responses, please feel free to contact me.

Data collection will begin at your earliest convenience, and will conclude on December 14, 2012.

Thank you for your time,
Stephanie Prichard

_____
Stephanie Prichard
Doctoral Candidate in Music Education
University of Colorado, Boulder
stephanie.prichard@colorado.edu
(571) 236-4183

Appendix G

Preservice Music Teacher Efficacy Scale (PMTES) Accompanying Materials

PMTES Administration Instructions

Instructors electing to receive all materials via PDF.

Thank you for participation in this study.

Enclosed, you will find an addressed and posted envelope for returning completed student questionnaires to me.

You have already received a PDF of the Preservice Music Teacher Efficacy beliefs Scale (PMTES), to be administered to your students as well as a course instructor administration agreement, and an IRB-approved study script for you to read prior to students' completion of the questionnaire.

Please leave the informed consent forms attached to the student questionnaires when you return them to me. Once each participant has a code, their name will be separated from their questionnaire responses.

Again, thank you for your help. Best of luck with the end of your semester!

Instructors electing to receive hard copies of all materials.

Thank you for your willingness to participate in this study.

Enclosed, you will find copies of the Preservice Music Teacher Efficacy beliefs Scale (PMTES), to be administered to your students. I have also included an IRB-approved study script, for you to read prior to students' completion of the questionnaire.

Please leave the informed consent forms attached to the student questionnaires when you return them to me. Once each participant has a code, their name will be separated from their questionnaire responses.

Again, thank you for your help. Best of luck with the end of your semester!

Course instructor PMTES administration agreement.

Study Agreement for Introductory Music Course Instructors

1. Please read the enclosed script to the participants.
2. Ask all participants to read and sign the Informed Consent form.
3. After questionnaires are distributed, the course instructor will have no further contact with them. The instructor will instead assign a student volunteer to collect completed questionnaires and seal them in the provided envelope for return to Stephanie.

I agree to administer the PMTES, per the instructions provided to me.

Course Instructor name (printed):

_____

Course Instructor signature:

_____

Date: _____

PMTES Study Script

A Mixed Methods Investigation of Introductory Music Education Courses,

Preservice Music Teacher Efficacy, and Commitment to Teaching

Study Script

You have been invited to participate in a research study. This study is completely voluntary. No matter what decision you make, there will be no penalty to you in any way. If you choose to participate, you will be asked to read and sign an informed consent form, and complete a questionnaire comprised of items pertaining to your confidence and experiences as a preservice music teacher. Your responses will be completely confidential, and you are free to terminate your participation in this study at any time. The questionnaire will take approximately 7 minutes of your time.

I will distribute the questionnaire to all students interested in participating. When you have completed the questionnaire, please hand it to _____[student's name]_____, who will collect all questionnaires and seal them in an envelope for return to the researcher.

Appendix H

Invitation to Participate in Strand II Interview

Dear _____,

At the end of last semester, you completed a questionnaire during one of your music education courses. At the end of that questionnaire, you indicated willingness to be contacted for a follow-up interview.

I am contacting you now to invite you to participate in a brief interview regarding your teaching experiences, teaching confidence, and course experiences as an undergraduate music education major.

I will be conducting interviews over the next 2 weeks (March 11-15, March 18-22). Please let me know what time (morning, afternoon, evening, or a specific window of time) and day of the week work best for you.

I will be conducting interviews primarily via Skype and FaceTime, however, a phone interview would also be possible. The interview will take approximately 30 minutes of your time, and questions will be related to your coursework and teaching experience as an undergraduate music education major. Your responses will be included in the final analysis for this study, but your name and identifying information will remain confidential at all times.

To thank you for your participation, I will provide you with a $10 iTunes gift card.

Please let me know if you have any questions. I look forward to speaking with you!

Thank you!
Stephanie Prichard

Appendix I

Strand II Interview Protocol

Background Experiences
- Can you describe your past teaching experiences?
  - Musical leadership positions?
  - Nonmusical leadership positions?
- What were your primary reasons for majoring in music education, and wanting to become a music teacher?
  - Could you say more about how _____ impacted your decision to become a music teacher?

Triangulation
- Can you describe a recent teaching experience or observation that stands out in your mind for any reason?
  - *Depending on answer:*
    - Have you ever had an experience where you truly felt like a teacher?
    - Have you ever had an experience where you felt unsure as a teacher?
- What kinds of thoughts do you have when observing/experiencing _____?
  - *Restatement of confidence/commitment-type statements*
  - Can you talk a little bit more about how _____ might influence or alter the way you think about your own teaching?

Field Experiences
- Can you describe the field experiences (e.g., observation, teaching) that you experienced as a part of your introductory music education course?
- I'm especially interested in field experiences that stand out to you, either positively, negatively, or for some other reason. Can you describe a specific field experience that stands out in your mind?
  - *Follow up by asking for an opposite experience, if relevant*
- Can you describe how your experiences (observing or teaching) in K-12 classrooms impact your thinking about your own teaching?
  - *Specific follow-up about confidence or commitment as opportunities present (no leading questions)*

Course Experiences
- Thinking about your overall experience in your introductory music education courses, what are your biggest "take-aways"?
- Would you say that _____ impacted your thinking about your own teaching?
    - *As possible, without leading:*
        - What types of course activities/experiences impact your teaching confidence?
        - What types of course activities/experiences impact your commitment to becoming a teacher?

Mentoring
- If you were struggling with a teaching issue or a lesson plan, who might you seek out for some input or assistance?
    - What might your interactions with that individual look like?
- Do you have any music education mentors?
    - *As possible, without leading:*
        - Course instructors? TAs? K-12 cooperating teachers?
- Do you ever have one-on-one time with this (these) mentor(s) to discuss your teaching?
    - How often?
    - Formal/informal?
- Can you describe how your interactions with a mentor might shape your thinking about your own teaching?
- Can you share a specific meeting or idea that has been particularly helpful to you? This could be a conversation, an experience, etc.
    - *As possible, without leading:*
        - Teaching confidence?
        - Commitment to become a music teacher?

Appendix J

Final Codebook

	Levels of Coding			Code Abbreviation	Exemplar Quote
Personal Music Teaching Efficacy Beliefs	Enactive mastery	Strengthening impact	Current Curricular	PMTE-EnMa+Cur	We had one assignment where we had to get up and teach the class a five-minute lesson. It had to be musical, but not like a rehearsal or anything. We didn't have instruments. A lot of people kind of struggled, I felt. There were several people who taught some type of rhythmic thing, but then ended up taking way too long explaining or writing on the board. My background is choir as well as playing trombone, so I used this little 2-part song that I could just teach without using the board or anything. I sang a phrase and had them sing it back, that kind of thing. And I think it was because everyone was involved and doing something musical right from the beginning, it went really well and I think they really enjoyed it. In five minutes they were able to sing the first part of this little 2-part song with harmony and everything. It left me thinking like, 'woah, ok, maybe I'm better at this than I thought.' (Int. 12, HLHYN)
		Strengthening impact	Current Non-curricular	PMTE-EnMa+Extra	I conduct a children's choir at my church, and…it's the church I grew up going to. I was in the children's choir when I was little actually. And then when I got older, a new lady took it over and it was kind of a disaster. Anytime they would get up to sing, no one knew the words, and a lot of the kids wouldn't even sing. She eventually gave up, I guess, or they asked her not to work with them anymore, I don't know. But I ended up taking it over, and…I'm really not trying to brag, but it's *so* much better than it was. And I don't even have a lot of experience or anything, but I just try to be patient and work through each thing methodically, and the results have been really good. That makes me feel like a teacher, like, 'ok, I think I can be pretty good at this.' (Int. 7, HLHYY)
		Strengthening impact	Past	PMTE-EnMa+Past	I think I mentioned before, my high school orchestra program was pretty good. Like, not everyone took private lessons or anything, but there were a lot of kids in orchestra who really wanted to be there, and we always played pretty well. I was always kind of one of the better musicians in the program, at least from my sophomore year on or so. So I had different opportunities as a section leader to help out with sectionals, or be in charge of certain things. Especially in my junior and senior year, when there were kids a lot younger than me,

Classroom Management	Weakening impact (single instance)	Current	PMTE-EnMa-	sometimes if someone had a hard time with something, I would say something that my private teacher said to me, or ask them, 'try it this way,' and a lot of the time it would work. I wouldn't necessarily say that made me feel like a teacher since I was still really their peer, but it made me more sure, or, think I would be a good teacher (Int. 4, HHYY)
	Weakening impact (Strengthening impact)	Current		I thought I'd get some experience and make some money by teaching private lessons. And I ended up only getting one call from a parent who wanted lessons for their son. But this kid…the student taught was just so unfocused and kind of like, not really interested or engaged at all. I'm pretty sure his mom was forcing him to play. It was frustrating because I was supposed to be helping him but no matter what I did, or even if I said like, 'let's do this and then we'll take a break,' he wasn't really having it. When I think about having a whole class full of kids like that, it's just….well it doesn't make me feel better about being a teacher, I'll say that. (Int. 24, LLLN)
Vicarious learning	Strengthening impact	Current Curricular	PMTE-ViLe+Cur	It was actually last semester, I was supposed to be observing this one teacher, but he had a student teacher, also from [my university], so I got to see both of them teach. I think it's always good to watch a good teacher, but what stuck with me the most was the student teacher… (Int. 19, HHYY)
	Strengthening impact	Past	PMTE-ViLe+Past	I think to teach in an elementary music setting and a good at it, but I just don't think there's any way I would be good at it. Being with kids that young, and in that kind of classroom, it feels kind of fake for me, I guess, and I just felt really strongly that I wouldn't be successful or I wouldn't be a good teacher, at least not in that kind of setting. (Int. 14, LLHYY)
	Weakening impact	Current	PMTE-ViLe-Cur	I think to teach in an elementary music setting and be good at it, but I just don't think there's any way I would be good at it.

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	Verbal persuasion	Strengthening impact	PMTE-VePer+	I met with her [professor/mentor] after both times I had to teach in class. Those were like, required as a part of the teaching assignment. We watched the video of my teaching, and paused it to talk about how things were going. I was pretty self-conscious. Every little thing, I was thinking, 'I could have done this differently, I could have done that differently,' but she [mentor] told me not to be so hard on myself and to be realistic about my expectations since it was basically my first time to ever formally plan and teach a lesson. She also pointed out some positive things that I hadn't noticed. And she said the stuff I thought was bad…like looking down to check my lesson plan, and saying 'um' too much…that stuff was normal, and just watching myself and being aware of it would help me to correct it. And she was right. Her saying that my mistakes were ok made me feel a lot better, like, 'ok, if I just focus on these few things next time, my teaching will improve.' (Int. 2, HHHYY)
	Vicarious learning	Weakening impact	PMTE-VePer-	In Intro, I observed a middle school band class. It was something I was really interested in…teaching middle school. I don't really love marching band, and that's a part of most high school band positions, so I was interested in exploring more about what all goes into teaching middle school band. The kids in the band didn't play all that well, and their teacher kind of kept teaching the same concept the same way, even though it seemed like the kids weren't getting it. When we talked to him afterwards, he seemed really frustrated and basically said that teaching high school band would be more rewarding. He said something like, 'if you want to make real music, don't teach middle school,' and that stuck with me because even though it's just one person's opinion, he has a lot of experience. Maybe I couldn't make as much of a difference as I thought at the middle school level.(Int. 19, LLLYY)
Classroom Management	Vicarious learning	Strengthening impact	CME-ViLe+Cur Current Curricular	I remember being in middle school orchestra, and it wasn't really that good of an experience. I was basically the only one who really

Efficacy Beliefs				wanted to be there, and my teacher had a hard time handling everyone so our rehearsals were hardly ever productive. I think it's that memory that makes me not really want to teach middle school. But then when I observed Mr. [Classroom teacher]'s class, it's not like the kids are completely amazing ability-wise, but he has a lot of things in place that like, keep them on track. Buddy checks, bows in the air, this thing when he's on or off the podium…so he's never yelling at them, and even the ones who you can tell don't completely love orchestra are like, paying attention most of the time. It makes me think, 'ok, middle school doesn't have to be a disaster.' When I think about *me* doing it, I'm still like, 'eehhhhhh,' [laughs], but seeing positive examples like that definitely helps. (Int. 9, HLHYY)
	Strengthening impact	Past	CME-ViLe+Past	When I was in middle school especially, my teacher, my choir teacher especially was *terrible* at classroom management. People would just sit in the back on the risers and talk and she wouldn't do anything to stop them. When I think about teaching music, or if I get overwhelmed about discipline, I think about her because I'm pretty sure I can do a lot better than she did. I'm not saying I have it perfect, but I know I at least work to develop a system that creates a better atmosphere. (Int. 12, HLHYN)
	Weakening impact	Current	CME-ViLe-Cur	I would watch her [Mrs. Classroom teacher] struggle with this group of kids. Like, at any moment there could be one laying down, one is beating on their chair with a rhythm stick or something, one is like, trying to hit another kid…it was crazy. When we first met her [classroom teacher], she said that it was a challenging group and that some of the kids have aids with them in their regular classroom. But she never really explained why they [aids] don't come to music, and then I end up thinking like, 'woah, if it's this hard for her, there's no *way* I could handle that kind of situation.' (Int. 15, LLHYN)
Verbal persuasion	Strengthening impact		CME-VePe+	I said to him [HS orchestra director] that I was like, concerned, I guess that I wasn't getting practical experience with applying certain things…teaching, but also like, classroom rules and discipline. I remember as a student even being aware of teachers that either did or didn't have good control in their classrooms, and that made a difference. But he kind of reassured me that you learn a lot about that really quickly when you start being in classrooms more. And he also

Theme	Type	Impact	Code	Data
				said that he sees my personality as being pretty easy for kids to like, get along with an respect. He knows me really well, so that made me feel better about some of my concerns. (Int. 17, LLHNN)
		Weakening impact	CME-VePe-	The teacher I observed last semester, I would talk with her after, and have a chance to ask questions about her lesson or whatever. Whenever I would ask about how she approached disciplining kids, or keeping everyone focused, really often she would say things like, 'well, this works for *me*,' kind of implying that her way wouldn't work for me. She made it seem like when it comes to classroom management, or discipline, you either have it or you don't. When you think of it like that, it seems quite worrisome to me. (Int. 20, LLLYY)
Mentoring	Formal	Strengthening impact	COM-MenFor+	So, I went to her classroom to observe a few times a week. A lot of the time I was doing more than observing, actually. She would like, ask me to participate, or have me come up and lead an activity spur of the moment. Then after, we would always sit down and talk about why she did things a certain way, or how she approaches any given situation, and she answered any questions I had. Seeing her process like that, and having the time to ask whatever questions popped into my head, that was something that really made me more sure that I want to get to where she is…teach elementary music. (Int. 7, HLHYY)
	Formal	No impact	COM-MenForNo	After our peer teaching assignments—there were two of them—we would meet with [Dr.………] and like, talk about whether or not we got through the steps of our lesson plan, how our eye contact was, that kind of thing. It was only five minutes or so, and I didn't feel like it really made that much of a difference. Um, I know I want to teach music, and I'm looking forward to actually *getting* to teach music, but those one-on-one times didn't really make a difference to me. He [Dr.………] was kind of in a rush to move on to the next person, and with a really short peer teaching thing, there isn't even that much to talk about, so I don't feel like that made a difference as far as my commitment to being a music teacher. (Int. 13, LLHYY)
Commitment	Informal	Strengthening impact	COM-MenInfor+	His door is always open. So like, I could schedule a time to meet about something specific if I wanted to, but most of the time it's just 'hey, here's something I have going on,' or 'what do you think about

			this.' And no matter what else he's got going on, he always takes time to talk through it with me. And he knows *so* much about teaching, talking with him just confirms how much I want to be a teacher. (Int. 1, HHHYY)
High	High Efficacy beliefs	COM-HighHE	I think I'm sure I want to be a teacher because I feel like I can be good at it...or maybe I think I'll be good at it because I like music so much? I think it's more of the first one, though. I love music and I enjoy working with kids. In the experience I've had working with kids, I feel like I'm well suited for it, and when you put it together with music it's kind of a win-win. (Int. 8, HLHYY)
	In spite of Low Efficacy beliefs	COM-HighLE	I definitely don't feel like a teacher. I *want* to be a teacher, I definitely do, but I still feel like more of a student, even when I'm observing a teacher. I think of it more from a teacher perspective than I used to, but I'm mostly thinking, 'wow, I'm not sure how I'll learn to do all of that, everything I need to know, in 4 years.' So even though I know it's what I want to do, I guess I don't feel all that confident that I know what I need to know yet. (Int. 14, LLHYY)
	Past Experience	COM-HighPast	I definitely knew I wanted to be a music teacher, probably from about my sophomore year of high school, actually. I was the drum major of my high school marching band for three years. It wasn't a huge program, and I was one of the only ones who was really serious about the music side of things and also like, the social, marching band side of things. But my director gave me a lot of responsibility associated with being drum major, and I just knew from that point, 'I definitely want to do this...want to be a music teacher.' (Int. 16, LLHYN)
Low	Low Efficacy beliefs	COM-LowLE	I think teaching music is awesome, like as a profession, but the more I learn about it, I just don't think I would be good at it. I know I'm a good musician, and I feel confident in my ability to like, improve my own performance, but I don't think translating that to other people, or to kids, is really a strength. And that makes me less committed to doing it, even though it's my major. Teaching is really important, I just don't think I'm really cut out for it. I really see myself going to grad school for performance or opera or something, rather than teaching. (Int. 20, LLLYY)
	In spite of	COM-LowHE	It's not that I don't think I would be good at it [teaching], I've

				Quote
			high efficacy beliefs	actually taught lessons in the past and always had good results. Students like me and I'm generally able to help them improve. It's just that I don't think it would be a rewarding profession for me. I'm not sure that music in general is the right path for me. (Int. 6, HLLYY)
		COM-LowPast	Past Experience	To be honest, choosing this major [music ed] was mostly a result of my parents' suggestions that I needed to have a degree that would allow me to get a job. Ideally, I would like to perform professionally. I will probably always have a private studio, and I could see myself teaching at the college level some day, but not really middle school, high school. (Int 23, LLLNN)
Mentoring	Conditions	MEN-CondMentorDes	Desire / Mentor	It's just really clear that he's invested in helping us become the best teachers we possibly can be, you know? Like how I was saying that his door is always open…other professors don't necessarily do that. When he talks about teaching, it's so clear how passionate he is and how much he wants to share whatever it is he's saying. He's also directly said to me like, 'let me know if you want to talk about this more.' He just really wants to help. (Int. 1, HHHYY)
		MEN-CondMenteeDes	Mentee	I know I can learn a lot from my education classes and stuff, but I really wanted to work with a real teacher…sooner than student teaching, I mean. So when my choir director mentioned this teacher who wanted some help, I took advantage of the opportunity and I'm so glad I did because she [mentor teacher] is someone I'll continue to work with over the next year or two I hope. (Int. 10, HLHYN)
	Time	MEN-CondTime+	Strengthening	We would always sit down and talk about why she did things a certain way, or how she approaches any given situation, and she answered any questions I had…It happened that way mostly because of my schedule, her schedule. Things lined up for both of us to have some time. (Int. 7, HLHYY)
		MEN-CondTime-	Weakening	There's not really time for that. I mean, you have your short little meeting, but so does everyone, so there isn't time to really talk about a different issue, or if you need help with something specific (Int. 5, HLLYY).
	Meaning	MEN-MeaningCare	Caring / Strengthening	It's really good to know someone cares about whether you get better, especially when it's [teaching] something you really want to get better at. Sometimes other classes or string studio activities are more detached, a little cut-throat, honestly. But since teaching is about

				Code	Quote
			Helping	MEN-MeaningHelp	relating to people, especially, I think it's just good having that relationship and knowing someone really cares about your learning and growing as a teacher. (Int. 6, HLLYY) It's so helpful when you're frustrated about something to talk about it with a mentor who's so knowledgeable. They have, well *she* [course professor] has so much experience teaching in different settings and that allows her to give suggestions that I definitely wouldn't have thought of on my own. It's that help…helping, that's what stands out to me most. (Int. 2, HHHYY)
			Individualized	MEN-MeaningIndiv	When I talk with him about teaching, it's different than being in a class where you're learning about teaching in a larger group. It's more specific to exactly what I want to know, or my experience, I guess. It's specific to me, as opposed to being about teaching in general. (Int. 11, HLHYN)
Field Experience	Conditions	Context	Familiar	FE-ContextFam	I knew what to expect, I guess. All teachers do things a little differently, but I've been in orchestras for…since fifth grade, so there are certain procedures that I've become comfortable with, or learned to expect a certain progression. (Int. 9, HLHYN)
			Unfamiliar	FE-ContextUnfam	One of the observations we did was in an elementary class, fourth grade. I think it left an impression on me because it was *so* different from what I've experienced. (Int. 19, LLLYY)
		Purpose	Guided	FE-PurpGuide	There was a kind of lesson plan form to follow along. During the observations there were certain things that we were supposed to look for and take notes. (Int. 2, HHHYY)
			Unguided	FE-PurpUnguide	We didn't take notes, or like, have a lesson plan or anything. It was really just going into a classroom, watching a class from beginning to end, and leaving. (Int. 21, LLLYN)
		Follow-up		FE-Followup	Usually in the next class, [music education professor] always made it a point to debrief in class after we had observed a teacher. That was definitely helpful because if the observation was really good, I wanted to talk about the things that happened, and if it wasn't good I always had a lot of questions. So I would say talking about it after, like as a class, was very beneficial. (Int. 2, HHHYY)
Background	Selection of music education	Musicianship		BACK-MusedMusic	I was a good musician, so it just seemed like the equation added up. I played cello all the way through high school. Played in orchestra, and also played in a string quartet that my orchestra teacher started. (Int. 4, HHLYY)

	Giving back	BACK-MusedGive	I had such a great experience being in orchestra in school, and had really good teachers. I wanted to give back, I guess. Create that same experience for my future students. (Int. 17, LLHNN)
	Significant teacher	BACK-MusedSigteach	I had the opportunity to work really closely with my choir director in high school, being an officer and whatnot. …He would always tell me…or like, say to other people about me, "this is the future generation, right here." Meaning that I was going to be doing what he was doing someday. (Int. 10, HLHYN)