

ILLINOIS PRESERVICE MUSIC TEACHERS' PERCEPTIONS
OF THE HIGH-STAKES USE AND FORMATIVE
ELEMENTS OF THE edTPA

BY

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DISSERTATION

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ABSTRACT

Teacher portfolio assessments are required for licensure in some states, and an increasing number of states have adopted a nationally available portfolio assessment, the edTPA, for this purpose. Preservice music teachers may view mandatory requirements such as the edTPA as a consequential or “high-stakes” assessment. However, preservice music teachers may also view the edTPA’s authentic teaching tasks and reflective opportunities as formative exercises meant to contribute to their growth as teachers.

The purpose of this study was to investigate preservice music teachers’ perceptions of the edTPA’s formative elements within its state-mandated use as a high-stakes assessment. Members of a convenience sample of Illinois preservice music teachers completed the same questionnaire at the beginning of student teaching ($n = 46$) and again after they completed their edTPA portfolios ($n = 32$). Exploratory factor analyses of their responses showed two distinct perceptions of high-stakes use: readiness to teach through the edTPA and familiarity with the edTPA’s supportive resources and rubrics. Three formative perceptions of the edTPA requirement were also perceived: confidence in their instructional planning and adjustment, recognition of the edTPA’s possible contribution to their professional growth, and acknowledgement of the potential value of reflective practice through the edTPA.

Preservice music teachers who agreed that the edTPA represented their readiness to teach also had similar perceptions about the formative elements like adjusting instruction and reflection. Conversely, those that disagreed that the edTPA represented their readiness to teach did not view its formative elements as contributing to their professional growth. These perceptions also changed over the course of the semester, but not substantially or consistently enough to suggest that preservice music teachers’ perceptions were changed as a result of

completing the edTPA. Rather, whatever general opinions they had about the edTPA at the beginning of student teaching were likely confirmed by completing the portfolio. Long and short term suggestions were made for music teacher educators who must simultaneously help preservice music teachers pass the edTPA and question its appropriateness as a measure for music teacher readiness.

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CHAPTER 1

INTRODUCTION

Since the late 1990s, state governments across the United States have embraced teacher portfolio assessment as a reform mechanism through teacher licensure policies that intend to hold novice teachers and teacher education programs accountable for the quality of their teaching and teacher preparation, respectively (Cochran-Smith, Piazza, & Power, 2013). At the time of this writing, 17 states have adopted a particular portfolio assessment, the *Teacher Performance Assessment* or edTPA, as a requirement for licensure. Another 23 are using it for some other teacher evaluation process (AACTE, n.d.). State legislatures, often under the advisement of the state's board of education, determine the minimum passing score necessary for preservice teachers to apply for licensure (Goldhaber, Cowan, & Theobald, 2016), thereby making the exam a “high stakes” rite of passage.

In Illinois, the site for the present study, the edTPA is utilized as a consequential, high-stakes barrier for all preservice teacher candidates applying for licensure. In 2016, the Illinois State Board of Education justified its adoption by stating: “Illinois has recognized the need for a common, standards-and performance-based assessment of teaching effectiveness that would measure teacher candidates’ classroom readiness...New teachers must be effective from day one” (ISBE, 2016, p. 2). The edTPA requirement extends to music teachers in Illinois who must complete and pass a version of the edTPA adapted for music and performing arts.

The edTPA is a teacher portfolio assessment written by the Stanford Center for Assessment, Learning, and Equity (SCALE) and administered by Pearson Inc., a private corporation. It is comprised of three tasks that must be executed in an elementary or secondary

setting, most commonly during student teaching. The first task of the assessment is *Planning*, in which preservice teachers must create 3-5 lessons, or a “learning segment” designed for their particular teaching settings. These lessons plans are accompanied by a description of the classroom and students, the connections between the plans and relevant educational research and theories, and written assessments that measure student learning. The second task, *Instruction*, requires that preservice teachers execute the planned lessons and video record the entire learning segment. The preservice teacher is expected to adjust instruction in response to the events of the class sessions. Major adjustments to lesson plans are to be analyzed and justified in an accompanying written reflection statement. For the final task, *Assessment*, preservice teachers analyze assessment data and provide feedback for their students. A full narrative of the teaching episode completes the set of required materials. These teaching artifacts are compiled into a portfolio that is electronically submitted to Pearson Inc. for appraisal. Final scores are determined by a Pearson-trained evaluator who applies music-specific rubrics delineated in the *edTPA K-12 Performing Arts Assessment Handbook* (SCALE, 2015). In Illinois, the final score determines whether a teacher obtains licensure, thus making performance on the edTPA a consequential step in teacher education.

Teacher licensure exams have a primary evaluative function that is driven by a state board of education’s interests in setting a floor of ability for novice teachers (Hanushek, 2011). Any assessment, when used for licensure decisions, is summative and high-stakes by nature. In contrast, the process of assembling a teaching portfolio provides teachers an opportunity to focus on aspects of teaching meant to develop self-motivated skills for professional growth such as lesson planning, teaching lessons in an authentic setting, and reflecting on the experience (Bauer & Nunn, 2003; Parkes, Dredger, & Hicks, 2013; Rawlings, 2016). Specifically, Parkes et al.

(2013) describe the potential for portfolio assessments to create more mindful and reflective teachers through formative exercises such as video recording teaching segments and analyzing decisions. These types of reflective tasks are meant to build self-assessment skills that will continue to improve a teacher's practice beyond the completion of the assessment.

The edTPA contains tasks that require formative skills and those skills are assessed for high-stakes purposes. The reflective and formative tasks of the edTPA are assessed in order to determine whether a preservice teacher is ready for the profession while attempting to guide life-long professional development (Sato, 2014).

The edTPA's simultaneous use as a high-stakes requirement and formative exercise represents a conflicted purpose. Robinson (2015) suggested that when an assessment operates as both a punitive accountability measure (i.e. a high-stakes barrier assessment that can be passed or failed by the candidate) and a tool to improve teaching, its goals are disparate and may confuse preservice teachers' approaches to and understandings of the assessment. Preservice teachers could see the potential benefits such as the development of reflective practice and assessment analysis of student learning (Coloma, 2013; Meuwissen & Choppin, 2015), but they could also perceive the negative features of high-stakes tests as primarily bureaucratic and perhaps at odds with their teacher education program (TEP) curricula (Cronenberg et al., 2017; Greenblatt, 2015; McKibbin, 2016; Meuwissen et al., 2015; Okhremtchouk et al., 2009). The relationship between preservice teacher perceptions of the edTPA's high-stakes use and formative elements can be a critical component to its continued use as an assessment.

Previous research in general education suggests that the edTPA's concurrent position as a high-stakes licensure barrier and formative exercise has resulted in mixed, but mostly negative, perspectives from preservice general classroom teachers and general teacher educators. Current

criticisms of the edTPA include the increased corporatization of teacher education (Olson & Rao, 2017), possible racial bias that could lead to fewer teachers of color gaining licensure (Petchauer, Bowe, & Wilson, 2018), speculated incompatibility between institutional expectations and successful completion of the edTPA in special education (Kuranishi & Oyler, 2017), technical challenges in completing the video recording component (Choppin & Meuwissen, 2017), and the writing demands of the edTPA outweighing potential benefits (Cronenberg et al., 2017).

Similarly, music teacher educators have written about the edTPA in a mostly disapproving fashion (Myers, 2016; Parkes & Powell, 2014; Robinson, 2015; Vaughan-Marra & Marra, 2017).

Empirical outcomes are critical when determining how policy implementation impacts stakeholders (Cochran-Smith et al., 2013). At the time of this writing, only two studies in music education utilized empirical data to examine the impact of the edTPA on various stakeholders. For different reasons, they are tangential to this current project but worth noting. Teacher educators were interviewed by Koziel (2018) about their experiences implementing the edTPA in Tennessee. Student teachers at the University of Colorado complete the edTPA as part of an institutional capstone project at University of Colorado that, although consequential, did offer remediation (Heil & Berg (2017).

Additional problems can arise when broad licensure policy is implemented and later applied to music education without careful consideration (Vaughan-Marra & Marra, 2017). In music teacher education, using the edTPA as a high-stakes licensure mechanism may exacerbate certain problems the edTPA supposedly solves in general education, resulting in what Barrett (2012) calls a *wicked* problem for music teacher educators. For example, questions of accountability in general education must be carefully applied to music education due to particular challenges present in music classrooms (Barrett, 2011; Robinson, 2015). Often, music

teachers are expected to work within constantly changing contexts of subject matter, performance expectations, and fewer well-defined assessment standards than other general classroom teachers (Parkes & Powell, 2015, p. 111). The expectations of the edTPA potentially conflict with these common structures in music education, but it is still unclear if the expectations of the edTPA are incompatible with current practices in Illinois music teacher education programs.

The remainder of this chapter traces the political genesis and development of the edTPA in order to understand its complex and potentially contradictory place in music teacher licensure. Political and economic conditions will be framed through neoconservative values and used to establish the educational problems and solutions that are being addressed through the implementation of these portfolio assessments as licensure exams. A brief history of teacher portfolio assessments follows, which will illuminate the trends that connected early portfolio assessments to their contemporary counterparts and will focus on the portfolios that directly affected the format of the edTPA. This historical perspective will then be applied to music teacher education. The chapter will culminate with an argument for the necessity of the current study along with its research questions.

Neoconservatism in Teacher Licensure Reform

Cochran-Smith, Piazza, and Power (2013) provide a four-part framework for understanding teacher education policy in the current era of accountability. The first two aspects of the framework, *Discourses and Influences* and *Constructions of the Problem of Teacher Education*, set the investigative backdrop of the current study. The first aspect of the frame, *Discourses and Influences*, examines the use of “political and economic conditions, agendas, ideologies, global influences, and trends” (p. 9), which are used to establish the political nature

of the edTPA and present the argument justifying the use of the edTPA as a high-stakes licensure mechanism. Neoconservative ideology is the basis for the political trends that created the need for the edTPA.

The second part of the framework, *Constructions of the Problem of Teacher Education*, addresses “the major actors and influencers behind policies, as well as how problems and solutions are framed, stated and hidden agendas, and political strategies used to forward policies” (p. 9). Accordingly, the history of portfolio assessments will show how the edTPA eventually became a solution to a problem created for political reasons. This part of the framework will be used to examine: 1) what problems were supposedly solved by the edTPA, 2) how high-stakes portfolio assessments became the prominent solutions to the problem, and 3) why the edTPA is currently the predominant manifestation of teacher readiness.

The third part of the framework, *Policy in Practice*, is “concerned with how policies are interpreted and remade in local contexts, especially in terms of individual and collective response, acceptance and resistance, and (un)intended consequences” (p. 9). The current study describes how preservice music teachers interpret, respond, accept and resist the state licensure policy that utilizes the edTPA as a high-stakes mechanism. By describing and measuring their confidence in the edTPA’s ability to help them improve their own practice, this study shows to what extent preservice music teachers resist or accept the required use of the formative portfolio as a high-stakes barrier.

The final portion of the framework, *Impact and Implementation*, concentrates on how outcomes of the implemented policy affect the TEP stakeholders who interact with the policy. Given the current study is concerned with the preservice music teachers who must complete the edTPA as part of licensure policy in Illinois, this aspect does not apply to the current study.

To study the policy in practice, responsible data collection and carefully extrapolated conclusions are necessary to describe the actual impact of the edTPA. At the time of this study, the edTPA is still new and observations drawn from research too inconclusive to make responsible conclusions about the test's appropriateness for measuring preservice music teacher readiness. It is hoped that this study will uncover new questions about the experiences of the preservice teachers who complete the edTPA as a high-stakes requirement in order to explore potential long-term ramifications of the edTPA on music teacher education and to possibly provide guidance for affecting policy changes.

Political ideologies and teacher licensure reform. The first aspect of the framework for understanding teacher education policy in the era of accountability suggests that understanding the political ideology behind a policy is necessary to understanding its possible effects. In terms of teacher accountability, both neoliberalism and neoconservatism influenced policy in modern educational reform (Apple, 2006, Zeichner, 2010). Apple (2006) interpreted neoliberalism as representing minimal influence of the state and the allowance of market forces such as competition to dictate and regulate educational policy. Neoconservative ideology, in contrast, advocates authoritarian state control to establish specific standards and values for what students learn and how teachers teach (p. 24). The two ideological perspectives work reciprocally to further their own fundamental tenets. For example, neoconservatives borrow market-force ideas like efficiency and effectiveness to produce authoritarian accountability measures for teachers. Conversely, neoliberalism draws from neoconservatism by using well-defined standards as outcome measures by which to determine quality and efficiency, which are then interpreted as effective or not effective. Although the edTPA has competitive neoliberal elements through its attempt to quantify teacher readiness (Reagan et al., 2016), this study will view teacher licensure

reform from the neoconservative perspective due to the edTPA's function as a high-stakes accountability measure meant to represent a standardized set of measurable skills.

Neoconservative ideology has factored prominently in modern education reform since the release of the United States Department of Education report, *A Nation at Risk*, in 1983 (Berliner & Biddle, 1995; Myers, 2016). While this federal report focused on using standardized test data to indicate that American schools were failing (Berliner & Biddle, 1995), its goals eventually brought teacher quality issues to the forefront of educational policy reform (Myers, 2016). Specifically, in the years following *A Nation at Risk*, teacher education policy discourse focused on how unprepared teachers were to enter the classroom (pp. 329-330). Standards-based assessments, such as the *PRAXIS* II licensure exam, became a regular part of policy discussions regarding teacher quality during the 1980s and continue to be relevant in contemporary policy (Dye, 2014; Lucas, 1997, p. 110).

Neoconservative ideas fueled reform discourse regarding how to address a perceived lack of standards and weak accountability for teacher performance in the classroom (Cochran-Smith et al., 2013; Myers, 2016; Reagan et al., 2016; Sato, 2015). Two core neoconservative tenets are a desire for measurable outcomes for accountability purposes and reliance on individual responsibility (Berliner & Biddle, 1995, p. 137). The use of these tenets within educational discourse led to an increased emphasis on standardizing teacher education curricula (Zeichner, 2010) and a push to quantify teacher performance (Hanushek, 2010). Thus, the stage was set for the edTPA as a mechanism to address these supposed problems in educational policy (Cochran-Smith et al., 2013; Sato, 2015).

Standardizing teacher education required the delineation of specific skills considered to be necessary for teacher effectiveness. This identification can be a complex task (Berliner, 2005).

To combat superficial assessments measuring knowledge about teaching, reformers looked beyond tests composed of multiple-choice questions (like the *PRAXIS* II) that assessed formal knowledge about teaching and more towards authentic representations of teaching skills such as observations of teaching in authentic settings, lesson adjustments, assessment analysis, and reflection on one's professional practice. The edTPA allows for the assessment of teaching in an authentic setting, which represents skills more likely to predict future teacher quality instead of relying on recalled knowledge about teaching through more traditional licensure exams (Sato, 2015). In the short time that portfolio assessments such as the edTPA have been used as high-stakes mechanisms, there have been observed improvements over previously used measures of teacher readiness. For example, strong relationships have been found between teacher scores on portfolio assessments and their students' achievement on standardized tests (Darling-Hammond, Newton, & Wei, 2013; Goldhaber et al., 2016; Pecheone & Chung, 2006; Wilson et al., 2014).

Addressing the “crazy quilt” of national standards in teacher education. The second aspect of the framework for understanding teacher education policy in the era of accountability addresses the creation of the problems of teacher education. For the edTPA, the neoconservative-inspired problems of the lack of standards and accountability created problems in need of a solution. The edTPA was eventually developed to solve those problems. But, before the edTPA can be named as the solution to these two problems, they need to be more thoroughly described.

Teacher licensure policy is set by individual states, but a common model across states involves a teacher graduating from a state-approved TEP and passing a series of exams administered by the state (Elpus, 2015). The standards and skills measured by these exams vary by state. Eventually, differing policies and expectations between states “created a crazy quilt of basic skills, content knowledge, and teaching skills assessments that [in 2010, added] up to 1,100

different tests” (Crowe, 2010, p. 8). The irony of this neoconservative push for a nationally standardized approach to teacher education is that, although there may have been clearer standards within a state, the disparate standards across states made the process more complex. The update of Title II, a part of the 2001 *No Child Left Behind Act* (No Child Left Behind [NCLB], 2002; Title II, n.d.), was meant to clarify the widely different standards in teacher education by requiring states to report licensure data to the Department of Education. The edTPA, being available for national use, potentially could help unify the standards of teacher education (Sato, 2014).

The edTPA’s basic tasks can be modified to fit the specific demands of any subject, school size, grade-level, or setting (i.e., rural, urban, suburban); meaning that the structure of the portfolio is malleable enough to fit the contingencies of any teaching setting. This allows preservice teachers of any subject to teach any instructional content or in any style they can justify as appropriate for their students (Cochran-Smith et al., 2013; Sato, 2015). The situational nature of the edTPA is central to the “argument for why the edTPA can even attempt to overlay a standardized assessment on a complex practice such as teaching” (Sato, 2015, p. 428).

This applicability may alleviate some of the issues that have complicated teacher licensure policy. However, creating an assessment that addresses standards that are broad yet specific enough for policy implementation requires careful attention to what concepts undergird professional work like teaching. The theoretical foundation of the edTPA attends to teachers’ abilities to 1) plan and adjust instruction, and 2) reflect on their own professional practice. These two characteristics of a professional practice answer the neoconservative questioning of how to standardize teacher education in a way that can be applied to any teaching setting and utilized by any subject.

Conceptual foundation of the edTPA. Sato (2015) traced the edTPA’s conceptual foundation to the writings of Lee Shulman, professor emeritus of Stanford University and past president of the Carnegie Foundation for the Advancement of Teaching. Sato discussed Shulman’s writings to specify instructional planning, adjustments to plans, and reflective practice as starting points for standardized teaching skills through the edTPA. Supposedly, the edTPA assesses one’s ability to plan and adjust instruction for a particular group of learners and requires evidence of reflection on one’s professional practice performed in an authentic classroom setting.

According to Shulman (1998), the modern professional teaching skill of instructional planning and deviating from those plans was derived from John Dewey’s two approaches to practical work, *apprenticeship* and *laboratory*. The apprenticeship approach is defined by the “practical skills needed to do the job smoothly and capably on a daily basis” and the laboratory approach is defined by “experimenting with new practices and [testing] yet-untested proposals” (p. 512). Shulman considered these two approaches as complementary in building “universal features that are traditionally associated with the idea of [the teaching] profession” (p. 516).

The edTPA is completed while one is student teaching, thereby encapsulating both the apprenticeship and laboratory approaches to practical work. The student teaching semester provides a *practical experience* to the preservice teacher who must combine instructional planning informed by pedagogical and content knowledge with formal and informal assessment analysis to inform their instructional decisions. Preservice teachers must then reflect on the effectiveness of the adjustments to determine whether the changes were successful.

Reflective practice through the edTPA. The formative tasks of the edTPA resemble Shulman’s concept of *signature pedagogies* (2005), in which three distinct structures make up

any profession's teachings: surface structure, deep structure, and implicit structure. The first element, *surface structure*, is the concrete knowledge of the profession. In the case of the edTPA's application to music education, the concrete knowledge includes music content familiarity, music pedagogical knowledge, and connecting educational theory to practice. Shulman clarifies that once the surface structures are taught, they must be broken down and analyzed through confronting assumptions and interpreting one's own experiences through reflection. *Deep structure* implies that one must be taught how to think like others in the same profession and that those metacognitive skills are developed through reflection and self-assessment. This gives way to the *implicit structure*, which focuses on dialogue and metacognitive processes necessary for heuristic interpretations of the previous two structures (Shulman, 2005, p. 55). These processes could include evaluating teaching effectiveness through watching video recorded teaching episodes and/or justifying instructional decisions that deviated from the plans.

The portfolio format of the edTPA allows the inclusion of *deep structures* in licensure assessment by including reflective practice. The reflective dimension of the edTPA embodies the first two structures of the signature pedagogies of teaching by combining the application of content knowledge through lesson planning with authentic executions of the plans followed by prompted reflective essays. The video component of the edTPA allows for the inclusion of authentic reflective practice as a significant part of the evaluation of teaching skills (Choppin & Meuwissen, 2017; Heil & Berg, 2017; Huston, 2016; Parkes, Dredger, & Hicks, 2013; Powell, 2016). Preservice teachers write their own interpretations of their teaching episodes that are evaluated by independent third-party evaluators to rate the quality of that interpretation.

This discussion now turns toward how teaching skills such as planning, adjusting, and reflecting on teaching embody standardized skills that can and have been measured in the past and how they have been used to represent teacher accountability. Analysis of those measurable skills led to the predictive models of teacher quality that have been used by state governments to justify the use of portfolio assessments as improved mechanisms for teacher licensure over previously ineffective nonportfolio-based licensure assessments (Darling-Hammond, 2010; Pecheone & Chung, 2006).

Improving novice teacher accountability. The other created problem supposedly solved by the edTPA was the lack of novice teacher accountability (Cochran-Smith et al., 2013). Multiple-choice, nonportfolio-based teacher licensure exams based on recalled knowledge were poor predictors of novice teacher quality (Darling-Hammond, 2001; Mitchell, Robinson, Plake, & Knowles, 2001; Wilson et al., 2014). This is possibly due to the limits of what nonportfolio-based exams generally measure and how these exams are misaligned with skills necessary to effectively teach in classrooms (Mitchell et al., 2001). Another weakness of nonportfolio-based exams was that tended to have negative effects on preservice teachers' beliefs about the quality of their own teaching (Berry, Clark, & McClure, 2011); and, as summative displays of recalled knowledge, nonportfolio-based licensure exams like the *PRAXIS II* offer little in terms of school context or subject content flexibility.

Implementation of teacher portfolio assessments such as the edTPA as high-stakes licensure assessments attempted to improve accountability for preservice teachers (Sato, 2015). Past research has found that the teacher performance assessments correlated well with student test scores once the preservice teacher entered the profession. This pattern has been seen in California (Darling-Hammond et al., 2013; Pecheone & Chung 2006), Connecticut (Wilson et

al., 2014), and Washington state (Goldhaber et al., 2016). In this sense, the edTPA can achieve the goal of improved accountability, but it is also possible that the edTPA as a high-stakes measure may not be as advantageous for all stakeholders (Cronenberg et al., 2016; Greenblatt, 2016; McKibbin, 2016; Meuwissen et al., 2015).

Preservice teachers in New York have expressed various concerns about having to complete the edTPA. The majority of the 61 preservice teachers in Greenblatt (2016) described their experience completing the edTPA as overwhelming and as detracting from their student teaching experience. The two preservice teachers in McKibbin's study (2016) saw the edTPA more as a bureaucratic requirement for licensure than a tool to improve teaching. While these types of concerns were worth noting, Meuwissen et al. (2015) argued that difficulties and negative perceptions of the edTPA were more the result of hasty policy implementation requiring the edTPA for consequential licensure decisions in New York and not necessarily the edTPA itself.

Regardless of the complex questions surrounding the edTPA's appropriateness as an accountability measure, its use as a high-stakes mechanism continues throughout the United States because it fulfills the neoconservative need to standardize teacher education and improve teacher accountability (Cochran-Smith et al., 2013). The standards established through the use of edTPA are intended to be broad enough to be applied to all settings. Portfolio assessments have also been shown to be better predictors of teacher quality than their predecessors (when teaching quality is defined by student test scores). But the edTPA was the result of almost 20 years of work on developing portfolio assessments designed to improve teaching practice. To understand further why the edTPA eventually became the solution to these two problems, it would be informative to examine it as part of the history of high-stakes teacher portfolio assessments.

A Brief History of High-Stakes Teaching Portfolio Assessments

The function of high-stakes teacher portfolio assessments began as an optional post-licensure add-on assessment in order to earn national board certification. Teacher portfolio assessments then came to be used as state-specific licensure measures, and finally became state mandates. In 2016, some form of teaching portfolio assessment was being used in all but six states as part of teacher licensure or evaluation.

Throughout this development, the ultimate goal was to fix the supposed unreliability of nonportfolio-based teacher licensure assessments. While some improvements were observed, the difficulties and conflicts inherent in using a portfolio as a high-stakes assessment have persisted. Cochran-Smith et al. (2018) summarizes:

As a teacher education accountability initiative, edTPA is rife with tension and conflict. It positions teachers as valuable and capable professionals, but embraces elements of compliance-based accountability...It grew from an assessment that valued local context and norms, but it has been transformed into a standardized assessment, scored by individuals far removed from local programs and local knowledge. It emphasizes performance and practice, but exists as a high-stakes, summative assessment. (p. 132)

Regardless, concerns over its high-stakes use and potentially conflicted perceptions about its purpose have not prevented the edTPA from becoming a common facet of licensure policy. At the time of this writing, 40 states utilize the edTPA as some part of their teacher licensure assessment policy, of which, seventeen utilize it for high-stakes licensure decisions (AACTE, n.d.).

Early teacher portfolio assessments. The edTPA's roots lie in the success of the National Board for Professional Teaching Standards (NBPTS) in establishing national teaching

standards and creating a process through which teachers could become nationally board certified (Sato, 2015). The NBPTS was founded in 1987 as a response to the Carnegie Forum on Education and the Economy Task Force report entitled *A Nation Prepared: Teachers for the 21st Century* (1986). Koppich and Humphery (2006) interpreted this report as meaning that “well-qualified teachers...were key to lifting still-sagging student achievement” (p. 7), thus furthering the argument that board certification would be instrumental in improving teacher quality, accountability, and strengthening teachers’ professional legitimacy.

In 1989, the NBPTS proposed five core values meant to define specific knowledge and skills that should be expected of all teachers (NBPTS, n.d.). According to Koppich and Humphery (2006), these core values were drawn from the work of Lee Shulman that focused on broad teacher skills like adjusting instruction through assessment analysis and reflective practice as prominent components to professional education. Moreover, the NBPTS sought to identify and evaluate the specific skills that make experienced teachers effective in the classroom (Goldhaber & Anthony, 2005). The five standards proposed that effective teachers: a) “are committed to students and their learning;” b) “are members of learning communities;” c) “know the subjects they teach and how to teach those subjects to students;” d) “are responsible for managing and monitoring student learning;” and e) “think systematically about their practice and learn from experience” (NBPTS, n.d., Vandervoort, Amerein, & Berliner, 2004, pp. 5-6). The values were updated in 2016 and continue to be the foundation of NBPTS assessments by representing the organization’s vision of what accomplished teaching looks like (NBPTS, n.d.).

Under the current program, teachers seeking national certification through the NBPTS must, after teaching in the classroom for at least three years, take an additional content area exam and submit a series of video recorded teaching segments complete with reflections and student

learning data (NBPTS, 2018). Fewer than 100 teachers were nationally certified teachers in the first year of offering the service in 1994 (Vandevoort et al., 2004). The program grew throughout the 1990s and by the early 2000s; there were over 32,000 nationally certified teachers with a passing rate of approximately 48% (Goldhaber & Anthony, 2004).

In contrast to the compulsory high-stakes use of the edTPA, completing the NBPTS portfolio assessment and obtaining national certification was and still is optional for in-service teachers. Board certification is meant for teachers looking to improve their own teaching practice and to demonstrate their commitment to the craft of teaching. Additionally, NBPTS certified teachers are considered experts and some school districts offer salary increases for teachers who obtain NBPTS certification (NBPTS, n.d.).

Both Cavalluzzo (2004) and Goldhaber and Anthony (2007) provided evidence that suggest the potential benefit of having a large number of NBPTS certified teachers working in a school. Teachers who obtained NBPTS certification were desirable hires due to reports showing that students taught by an NBPTS certified teacher tended to make the greatest gains in test scores (Cavalluzzo, 2004) and because NBPTS certified teachers tended to stay in teaching longer (Goldhaber & Anthony, 2007).

With the development of the NBPTS process, the two values of thinking systematically about teaching and learning from experience (NBPTS, n.d.) were now a more central part of evaluating teaching. Moreover, assessment of these particular skills represented a marked improvement in effective assessment of overall teaching ability (Koppich & Humphery, 2006). These developments turned the conversation on teacher quality to how portfolio assessments could be utilized to improve teaching practice for all teachers and not just those committed and disciplined enough to complete the NBPTS portfolio.

Policy-makers, particularly in California, responded by paying more attention to the NBPTS process when suggesting improvements to teacher licensure procedures. Pecheone, Pigg, Chung and Souviney (2005) described the policy environment at the time as an “opportunity to examine the impact of a new legislative standards-based assessment initiative that [was] designed as a high-stakes assessment system” (p. 164). Two motivations drove changing licensure exams to teacher portfolio assessments like NBPTS certification: first, to more tightly control the curriculum of state TEPs and second, to help increase the teacher quality predictability lacking in previous licensure tests (Zeichner, 2010). In other words, the early high-stakes teacher portfolio assessments attempted to standardize teacher education and hold new teachers more accountable to community stakeholders earlier in their teaching careers. The perceived success of the NBPTS certification process in the 1990s inspired California policy-makers to mandate that portfolio assessments be part of the teacher licensure process in 1998 (Pecheone et al., 2005).

Differentiated effects of the PACT. Modeled after the NBPTS certification process, the Performance Assessment for California Teachers (PACT) was piloted in 2002 to prepare for full implementation in 2004 (Pecheone & Chung, 2006). The PACT differs from the NBPTS certification process by eliminating the content area exam and focusing solely on teaching performance (Sato, 2015). Portfolio components of the PACT included lesson plans aligned with California state content standards, teaching videos, reflective essays, and graded student assessments. Preservice teachers were required to write rationales for what they taught and why they taught a specific way. Third party evaluators then scored the portfolios with rubrics developed by the PACT consortium, which consists of 30 teacher education programs throughout California (Sato & Curis, 2008).

A marked improvement was observed in how closely teacher performance on licensure assessments aligned with student achievement. Portfolio assessments showed stronger predictions of teacher quality through test scores than traditional nonportfolio-based assessments (Darling-Hammond et al., 2013; Pecheone & Chung, 2006). By tying teacher performance on portfolio assessments to student test scores, policy-makers could justify the change to the more invasive and expensive method of teacher assessment as a necessary modification to teacher licensure procedures.

However, the perceived increase in accountability through using the PACT came at a cost. Preservice teachers completing the PACT found the assessment cumbersome, expensive, and overly time-consuming. Furthermore, although some viewed the PACT as a helpful exercise in reflection and instructional decision-making, other preservice teachers felt that those benefits did not justify the additional stress associated with the completing the portfolio (Okhremtchouk et al., 2009).

Large-scale and generalized effects of the PACT showed promise in expanding the use of performance assessments as high-stakes licensure mechanisms. However, preservice teachers perceived conflicting messages in the construction and execution of portfolio assessments as high-stakes mechanisms (Okhremtchouk et al., 2009), possibly due to contradictory intentions of high-stakes use and formative elements existing within the same assessment (Robinson, 2015). Regardless of the concerns at the student and university levels, the positive relationships between teacher scores on PACT and student achievement as well as the tighter state control over what skills teachers must learn to complete the portfolio gave enough reason to continue advocating for performance assessments as teacher licensure requirements.

The edTPA as a high-stakes assessment. Inspired by the perceived success of the PACT, the Stanford Center for Assessment, Learning, and Equity (SCALE) developed the edTPA as an electronic teacher portfolio assessment for national use (Sato, 2015). By creating a singular assessment for measuring teacher readiness, SCALE hoped to unify and improve professional teacher education (Sato, 2015).

The edTPA is published and commercially distributed through Pearson Inc. and can be used by states as a teacher education or licensure policy as they see fit (AACTE, n.d; Reagan et al., 2016). Currently, Colorado and Minnesota use the edTPA as an accountability measure solely for teacher education programs, meaning that a preservice teacher's performance has no direct bearing on their licensure (Heil & Berg, 2017; Langlie, 2015). In contrast, the states of New York, Washington, and Illinois utilize the edTPA as a high-stakes assessment to be completed by preservice teachers independent of the TEP (Goldhaber et al., 2016; Greenblatt, 2016; McKibbin, 2016; Olson & Rao, 2017). In either case, a TEP still has a vested interest in its students' performances on the edTPA due to the TEP's desire to graduate licensed teachers ready to enter the classroom (Angrist & Guryan, 2004) and because states might decide to use the assessment to determine the quality of TEPs, possibly in order to rank them (Goldhaber et al., 2016; Meuwissen et al. 2015).

This overview of history of teacher portfolio assessments illustrates a progression of teacher licensure assessments that has currently settled on the edTPA. The numerous ways in which the edTPA is used speaks to its adaptability (i.e., it can be used as a TEP accountability measure or a high-stake teacher licensure assessment for teachers of any subject) in a way that explains its current ubiquity in the national discussion on teacher education standards and accountability.

Because of the relatively short time the edTPA has been part of the national teacher education discussion, researchers have only been able to address the immediate and short-term effects of the use of this assessment (Behney, 2016; Coloma, 2013; Evans et al., 2016; Goldhaber et al., 2016; Greenblatt, 2015, McKibbin, 2015; Meuwissen & Choppin, 2015; Meuwissen et al., 2015). But while the general education research literature is narrow, music education research is even more so. This discussion now addresses applications in music teacher education and the complications that arise when using portfolio assessments as standardized high-stakes accountability measures in music education.

Applying the edTPA to Music Education

By attempting to solve the problems of a lack of standards and accountability in general education, the edTPA presents its own particular complexities for music education. Barrett (2012) describes the most pressing problems in music teacher education as *wicked* problems, i.e., problems that are ill-defined, subjective, lacking agreement as to the nature of the problem, always evolving, and often creating more problems through solving the intended one. The expanding use of the edTPA for music teacher licensure decisions represents a wicked problem in music teacher education.

The next section addresses complications in defining music teacher standards and accountability through teacher licensure, beginning with an examination of the issue of music teacher quality. This is followed by a discussion of certain features of the edTPA process that resonate with existing practices in music teacher education. Finally, teacher accountability in general and music education is connected to the high-stakes use of teacher portfolio assessments as part of teacher licensure in order to establish the need for the current study.

Measuring teaching quality in general and music education. In general education, terms like “teacher quality” are difficult to define due to the multitude of factors that could contribute to success in the classroom and lack of agreement on how teacher quality can be measured (Berliner, 2005). If defining and measuring teacher quality in general education is difficult, then defining and measuring music teacher quality is a more arduous endeavor (Barrett, 2011) due to a pair of complications.

The first complication is the application of teacher accountability models from general education to music teaching. Contemporary educational reformers have defined accountability as student scores on standardized tests as representations of student learning (Darling-Hammond et al. 2013; Goldhaber et al., 2015; Wilson et al., 2014); Teacher quality is viewed in terms of its influence on student test scores. These types of analyses are referred to as value-added measures (VAM). Although VAM analyses are widely used for teacher evaluation purposes, they are prone to large sampling errors and biases implicit in student test scores often caused by variability linked to student attributes such as socio-economic status (American Statistical Association, 2014; Hanushek & Rivkin, 2010).

Using VAM as a measure to determine teacher quality represents another problem as definitions of music teacher quality tend to be more “complex, and perhaps more idiosyncratic” (Barrett, 2011, p. 1) than their general education counterparts. Furthermore, there are no standardized curricula or traditions of using standardized music tests to assess music learning across multiple years of K-12 music education (Robinson, 2015). The ill-considered response of some states that rely on VAM to evaluate music teachers is to include student scores from standardized tests of reading and math in analysis for determining music teacher effectiveness (Hill, Kapitula, & Umland, 2010; Robinson, 2015).

The other complication involves the same use of VAM, but with *predicted* teacher quality represented by licensure exam scores. VAM methods are often used to predict general education teacher success based on the teacher's score on a high-stakes licensure test (Darling-Hammond et al. 2013; Goldhaber et al., 2015; Hanushek, 2011; Pecheone & Chung, 2006; Wilson et al., 2014). This is problematic when applied to music education due to unreliable outcome data to compare to the licensure test score (Robinson, 2015). Furthermore, current high-stakes assessments such as the edTPA are written for broad educational reform goals (Sato, 2015), but are often poorly applied to the particularities of music education (Parkes & Powell, 2015; Vaughan-Marra & Marra, 2017). These complications to the VAM models make predicting music teacher quality based on a singular assessment score incredibly problematic in the current teacher accountability climate (Parkes & Powell, 2015).

Portfolio assessment tasks that resemble common practices in music education.

Formative exercises such as teaching in authentic settings have been long valued in music education (Barnes, 1998; Bergee, 2002; Conkling, 2003), especially when making the final transition from university music student to music teacher (Draves, 2013; Roulston, Legette, & Trotman Womack, 2005). Furthermore, reflective practice using video recording has been regularly encouraged when developing music teaching skills (Conkling, 2003; Powell, 2016; Rawlings, 2016), especially as part of a larger portfolio created for evaluative purposes (Bauer & Dunn, 2003). These parts of the edTPA may be more aligned with music teacher education than originally thought and may seem less novel than the way they were described in Huston (2016), where the participants video recorded themselves teaching for the first time in their teacher education curriculum while completing the edTPA.

Research in general education has identified problems in the use of portfolio assessments as high-stakes measures (Meuwissen & Choppin, 2015; Okhremtchouk et al., 2009). This may hold true with music education (Vaughan-Marra & Marra, 2017) due to certain discipline-generic components of the edTPA such as broad applications of the planning and assessment tasks (Parkes & Powell, 2015). These tasks may represent forms of planning and assessment that run counter to the ways preservice music teachers have been taught to plan and assess students in their music teacher education programs (Myers, 2016; Parkes & Powell, 2015).

Nonetheless, preservice music teachers' views of the high-stakes use and formative elements of the edTPA may reflect certain particularities in music education. Preservice music teachers must navigate complexities that general classroom teachers do not face. Music teachers often change school placements during the student teaching semester, instruct classes in large groups, teach in spaces not conducive for music teaching like cafeterias and gymnasiums, plan instruction around musical ensemble concert obligations, and/or travel to multiple buildings during the school day. These complications can make the logistics of the edTPA, like video recording lessons (Choppin & Meuwissen, 2017), unnecessarily difficult or act as obstacles to completing the edTPA by adding more chaos to an already busy classroom setting. Whether preservice music teachers perceive the broad teaching skills assessed by the edTPA as an asset to their teaching development has yet to be determined.

In summary, the use of the edTPA as a high-stakes licensure mechanism adds to the already complicated problem of music teacher accountability, thus creating another wicked problem for music teacher educators to navigate in order to help their students fulfill this final obligation in order to become a licensed music teacher. To address the challenges of applying the edTPA to music teacher education, attention must be paid to simpler, but still unanswered

questions (Barrett, 2012). As has been done in general education, music teacher educators will benefit by taking a wider look at the problems possibly created by the edTPA through an exploration of how various stakeholders perceive the edTPA's elements (Coloma, 2013; Meuwissen et al., 2015; Meuwissen & Choppin, 2015). In the case of this study, those perceptions begin with the preservice music teachers who must complete the edTPA as a high-stakes assessment in order to apply for licensure.

The study of their perceptions will allow music teacher educators to approach whatever edTPA policy exists in their respective states as well as illustrate the edTPA policy in practice in Illinois. By being able to define and measure preservice music teachers' perceptions of the edTPA, music teacher educators can better prepare preservice music teachers for this compulsory assessment.

Need for the Study

The use of the edTPA as a measure of preservice teachers' abilities in the classroom has increased since its first implementation as a high-stakes licensure assessment in 2013. At the time of this writing, 17 states, including Illinois, use the edTPA portfolio as a high-stakes licensure assessment to measure preservice teacher's readiness to teach. In assembling their edTPA portfolio, preservice teachers must develop and present artifacts that exhibit their knowledge of and skills in planning, instruction, and assessment. Independent evaluators score the preservice teachers' submissions and, if the score meets or exceeds the minimum passing score set by the state legislature, the preservice teacher is determined to be "ready" and is permitted to apply for licensure.

The use of the edTPA as a high-stakes licensure assessment has been met with some resistance and criticism from the teacher education community. Some scholars criticized the way

New York implemented the edTPA as a high-stakes assessment. Others suggested that preservice teachers felt that the goals in the edTPA were unclear, and thus questioned the validity of the assessment as a whole or described how preservice teachers focused more on the precise mechanisms of the assessment such as video editing and clarity in writing instead of thoughtful reflections on their teaching.

Similarly, in music education, the use of the edTPA as a high-stakes licensure assessment has been met with reluctance. Questions about the legitimacy of a singular assessment determining an individual's qualifications to teach music in public schools have been raised. Some scholars challenged the predictive validity of the edTPA for music teachers by doubting that a relationship can ever be found between performance on the edTPA and successful music teaching. Others expressed fears that assessments such as the edTPA focused too much on student outcome measures and not enough on artistic expression or aesthetics. Despite these criticisms from general and music teacher education scholars, now and for the foreseeable future, preservice teachers graduating from TEPs in states where the edTPA is a required part of licensure policy must still complete and pass this assessment in order to achieve their goal of teaching music in public schools.

Because of its portfolio format, the edTPA shows potential to contribute more constructively to teacher education through the inclusion of formative elements despite a high-stakes licensure assessment. Nonportfolio-based assessments, such as the *PRAXIS II*, are taken towards the end of a Teacher Education Program. Due to its use as a gateway to licensure, the edTPA, like the *PRAXIS II*, is used as a summative assessment. However, unlike the *PRAXIS II* and other nonportfolio-based assessments, the edTPA may simultaneously play a developmental function in enabling teachers to better inform their instruction.

Similar to the conflict between the edTPA's potential merits and the views of some music teacher educators, research has indicated that preservice teachers who complete the edTPA in general education have mixed views of their experience with the assessment. General preservice teachers' perceptions of the edTPA vary for a number of reasons such as: implementation strategies employed by the state, individual perception of edTPA knowledge and support from TEP faculty and cooperating teachers, compatibility of expectations between the edTPA and TEP, and cooperating teacher involvement.

Certain tasks of the edTPA, such as assessing authentic teaching experiences and reflecting on video recorded teaching segments, have been a valued part of music teacher education. Authentic experiences in active music classrooms are common in music teacher education and reflective practice using video recording is encouraged when developing music teaching skills. Given that the edTPA is a required part of preservice music teacher licensure and contains potentially helpful formative exercises in planning, instruction, assessment, and reflection, the question now turns to whether preservice music teachers perceive the edTPA's potentially helpful formative elements in spite of its high-stakes use.

While the issue of preservice teachers' perceptions of the edTPA is being addressed in general education, at the time of this writing, there has not been a study focusing on the general perceptions of preservice *music* teachers. Specifically, there has yet to be a study examining preservice music teachers' perceptions of the edTPA's simultaneous high-stakes use and formative elements. The utilization of the edTPA as a high-stakes licensure assessment presents particular challenges for the music education community, especially given the complexity of applying a licensure assessment written with broad, general education goals to music teaching. The current study begins by examining the specific dimensions of preservice music teachers'

perceptions of the edTPA. The results from this study could be used to inform music teacher educators who help guide preservice music teachers through this required step in their education and to begin informing policy decisions regarding edTPA's use as a high-stakes licensure mechanism.

Purpose of the Study

The purpose of the current study is to investigate preservice music teachers' perceptions of the high-stakes use and formative elements of the edTPA. Preservice music teachers' perceptions of these elements and the relationship between them can inform music teacher educators about how the edTPA may function as both an accountability measure and a tool for improving teacher practice and be used to support their efforts at integrating the edTPA into music education coursework.

Research Questions

1. What do preservice music teachers perceive about the edTPA's use as a high-stakes assessment?
2. What do preservice music teachers perceive about the formative element of the edTPA that are intended to inform and improve their professional practice?
3. What are the relationships between preservice music teachers' perceptions of high-stakes use and formative elements of the edTPA?
4. How do preservice music teachers' perceptions of the edTPA change between the beginning of the student teaching semester and after they complete the portfolio?

Definition of Terms

Teacher Portfolio Assessment– An assessment for which preservice teachers compile artifacts, videos, and plans from their teaching in order to develop skills of reflection and self-assessment. The full compilation is submitted through an online portal. Parkes et al. (2013) described four essential parts to Teacher Portfolio Assessments: Collect, Select, Reflect, Connect. Preservice teachers are not required to submit every part of their teaching for a portfolio, but rather what they consider the best portion of their work. Once they have selected their materials, they create reflections through essays in an effort to connect all the parts of the portfolio submission.

Formative Elements of the edTPA – The tasks of the edTPA designed to inform teaching practice that include: being able to plan effective lessons for students, adjust instruction based on student feedback, assess student learning effectively, and reflect on teaching abilities through watching video recordings of lessons.

High-Stakes Elements of the edTPA – The use of the edTPA as part of consequential decisions about teacher licensure. A passing score on the edTPA is required in order to apply for licensure in Illinois, which makes the edTPA a high-stakes barrier to licensure.

Licensure/Certification – “[A] governmental authorization to practice in a particular field” (Dye, 2014, p. 31). In a recent study of alternative routes to certification, Dye notes that the two terms are used inconsistently across the United States but represent essentially the same concept and are often used interchangeably in research.

This study will use the term *licensure* exclusively due to the word’s place in discussions about professional work. The requirements to be licensed to teach are written and enforced by

the state legislature, but are advised by entities such as the Interstate Teacher Assessment and Support Consortium (Paliokas, McWalters, & Diez, 2011).

Preservice teacher – For the current study, this term refers to students enrolled in a state approved teacher education program during their student teaching semester. While any student enrolled in a TEP can technically be a preservice teacher, this study will use the term exclusively for students completing student teaching during the final semester of their program. Both graduate and undergraduate students are referred to as “preservice teachers” throughout this study.

Teacher Education Program (TEP) – Any accredited institution authorized by the state to prepare teachers for licensure to teach in public schools. Institutions are normally accredited by organizations such as the Council for the Accreditation of Educator Preparation and the Interstate Teacher Assessment and Support Consortium in order to suggest an institution’s adherence to generally accepted educational standards.

Teacher Portfolio Assessment (TPA) – For this study, a TPA is a portfolio compiled by a preservice teacher to be used in the measurement of teaching ability (Burrack & Payne, 2015; Parkes et al., 2013). The components of a TPA often include: lesson plans, teaching videos, assessment analyses, and reflective exercises addressing each part of the portfolio. The portfolio is then submitted to at least one independent scorer who applies a set of rubrics to the portfolio to assign a score that, when compared against a predetermined cut score, determines whether a preservice teacher’s performance is acceptable to obtain a teaching license. This term is often interchangeable with “Teacher Performance Assessment.” For the sake of this study, the term “teacher portfolio assessment” will be used exclusively to reflect the current study’s focus on the structure of the assessment.

Organization of Dissertation

Chapter 2 includes the review of literature where relevant research will provide guidance for the remainder of the study. Chapter 3 outlines the methodology used to answer the research questions. Then, the results from the analysis will be displayed and put in context of the research questions in Chapter 4. A final summary of the results and a discussion will connect the findings with the research questions and suggest implications of the current study for music teacher educators is provided in the final chapter.

CHAPTER 2

REVIEW OF LITERATURE

This chapter focuses on two main bodies of empirical literature concerning preservice teachers' perceptions of the edTPA: studies on teacher portfolio assessments used for licensure decisions that are similar to the edTPA, and research specifically relating to stakeholder interactions with the edTPA. Empirical work involving preservice teachers is included in part to define the variables and justify methodological decisions of the current study. Literature on elements of portfolio assessment such as scoring and value-added analyses is included for a more holistic view of the edTPA's place in teacher licensure assessment policy. Research on preservice teachers' perceptions of portfolio assessments will provide clarity for the research questions and methods.

Connections between the literature and the current study are made explicit in a summary of each section. A conclusion will offer a synthesis of the literature aligned with the purpose of the study and its methodology.

Teaching Portfolio Assessments Similar to the edTPA

Empirical research on teaching portfolio assessments addresses either the validity of the assessment or the perspectives of the preservice teachers completing them. When portfolio assessments first became part of teacher licensure policy, their validity was determined by how strongly teacher candidates' scores on the new assessments correlated with their students' test scores. Although the credibility of determining a test's effectiveness in this way has been called into question (ASA, 2014; Robinson, 2015), the surface connection led to use of portfolio

assessments as formative assessments within a Teacher Education Program (TEP) or high-stakes licensure mechanisms (Pecheone & Chung, 2006).

Studies focusing on preservice teachers' perceptions occupy the other main category of literature on Teacher Portfolio Assessments (TPAs). Understanding how preservice teachers experience and perceive portfolio assessments should be a critical part in determining the effectiveness of portfolios as formative tools. In particular, preservice teachers' perceptions of the high-stakes use and formative elements can help clarify the dual purpose of TPAs as both accountability measures and opportunities to improve teaching practice.

Validity of teacher portfolio assessments. The perceived success of national-board certification for teachers based on the National Board of Professional Teaching Standards (NBPTS) was an early influence on the shift to portfolio assessments as licensure mechanisms. Vandevort, Amerein, and Berliner (2004) sought to discover if there was a significant difference in student test scores between classrooms with an NBC teacher and those without. Thirty-five NBPTS certified teachers volunteered to participate in the study, for which they completed surveys and shared their classroom's standardized test score data with the investigators. The researchers found that students of NBPTS certified teachers outperformed those of non-NBC teachers. An effect size of ($\eta^2 = .122$) accounted for about 12% of the variance in the difference between the groups, which the investigators interpreted as approximately a month's gain in standardized math and reading test scores between the two groups. Participating teachers were asked in what ways the NBPTS certification process helped improve their teaching practice. Nearly two thirds cited the reflective exercises. Fourteen percent reported that completing the NBPTS portfolio improved analytical skills, such as focusing on assessment as a means to adjust planning.

The intent of a study by Wilson, Hallam, Pecheone, and Moss (2014) was to determine the effectiveness of portfolio assessments and nonportfolio-based licensure exams as possible mechanisms for licensure decisions. Elementary reading teachers' scores on Connecticut's Beginning Educator Support Training (BEST) portfolio, a portfolio assessment completed by first and second year teachers, were subjected to correlational analyses with the same teachers' scores on their *PRAXIS* I and II exams. To test the predictive validity of the BEST portfolio, teachers' BEST scores were compared with their students' scores on standardized reading exams via a hierarchical linear model that controlled for teacher and student covariates such as gender and socio-economic status.

Scores on the portfolio- and nonportfolio-based licensure measures were not significantly correlated. Similarly, there were no relationships observed between teacher performance on *PRAXIS* exams and their students' scores on tests. Wilson et al. expected this lack of relationship between the *PRAXIS* tests and student achievement due to previous literature suggesting that "without any controls for potential sources of bias, the correlation coefficients [will be] low and not statistically significant" (p. 17). As was also expected, the researchers found that about a third of the variance in student test scores was due to non-teacher factors like students' pretest score performances, gender, free or reduced lunch status, and English Language Learner status ($R^2_w = .32$). Additionally, teacher covariates such as gender, performance on *PRAXIS* exams, and quality of undergraduate institution expressed as the interclass coefficient ($ICC = .18$) affected student test scores. But, the teacher's BEST score accounted for a substantial amount of variance in student achievement ($R^2_B = .46$), which estimated 2.2 points change in student test score for every 4.8 point change in teacher BEST score. Results of this study were meant to inform the decisions made by policy-makers regarding the use of TPAs in licensure decisions.

Predictive validity of portfolio assessments has also been estimated by comparing teacher scores on other TPAs with student achievement data. Researchers compared 305 preservice teachers' scores on the Performance Assessment of California Teachers (PACT) with their students' academic achievement scores (Darling-Hammond, Newton, & Wei, 2013). Results showed significant and substantial positive relationships between preservice teachers' PACT scores and the variance in their students' test scores in English language arts ($R^2 = .69$) and mathematics ($R^2 = .67$). These relationships suggested that the PACT is an effective teacher licensure assessment when effectiveness is defined as the relationship between a teacher's performance on an assessment and predicted student test scores within English and mathematics. This finding replicated the findings of Pecheone and Chung (2006), who found similar connections between PACT pilot score data and student test scores.

In addition to showing substantial external validity, teacher performance assessments have also been shown to provide strong internal validity by effectively operationalizing reflective ability and comparing it to traditional measures of teacher competence. As part of a study on portfolio assessments for preservice music teachers, Burrack and Payne (2016) explored the validity of an institution-developed, web-based teacher portfolio assessment. Preservice music teachers' reflective practice was operationalized as scores on an essay submitted as part of a portfolio assessed by experienced educators. The essay scores indicated that the preservice teachers were able to connect state standards to student learning through reflective prompts. Preservice music teachers' scores on the portfolios were significantly and negatively correlated with their *PRAXIS* II test score ($r = -.25, p < .05$) and their state's music content exam ($r = -.36, p < .05$). This counter indication of teacher readiness as determined by comparatively purposed tests suggests that portfolio assessments measure different types of skills than their nonportfolio-

based counterparts.

Preservice teachers' perceptions of teacher performance assessments. In an exploratory study, Okhremtchouk, Seiki, Gilliland, Ateh, Wallace, and Kato (2009) used broad, open-ended questions within a survey in an attempt to understand how PACT preparation affected preservice California teacher candidates' lives during student teaching. A total of 73 preservice teachers participated in the survey.

The researchers concluded that the PACT was a time consuming and stressful process, but one that also helped preservice teachers analyze and assess their own teaching. In particular, preservice teachers reported that the most helpful element of the PACT was the required videotaping of instruction for reflective purposes. Specific negative aspects of the PACT experience included undue stress caused by the additional time necessary to prepare the portfolio, redundancy of reflection prompts, and inconsistent support from the TEP. The negative perceptions of these test features may compound the intent of using any TPA for high-stakes licensure decisions.

Okhremtchouk et al. suggested that TEP faculty and staff can help ease the stress created by the PACT during coursework by scaffolding exposure to the procedures of the assessment and providing appropriate guidance through the portfolio assembly process (p. 58). The researchers suggested that reducing the amount of work for completing the PACT might help preservice teachers see the assessment more clearly as a formative opportunity to improve their teaching practice.

In-service teacher perceptions of TPAs also differed depending on when teachers are asked about the experience. Campbell, Ayala, Railsback, Freking, McKenna, and Laush (2016) examined 1,000 in-service teachers' perceptions of the California Teacher Performance

Assessment (CalTPA) and PACT either “at the time” or “looking back” (p. 61). Seventy-six percent of the respondents reported that the CalTPA took away from the clinical experience of student teaching at the time and 64% reported similar opinions when looking back. The PACT received more favorable perception scores than the CalTPA, with 66% of preservice teachers saying the PACT detracted from the student teaching experience at the time and 52% looking back. Campbell and colleagues found that completing a performance assessment as part of licensure generally enhanced self-perceived decision-making in the classroom, reflective abilities related to those decisions, and the ability to gather and analyze student data. However, the overall perceptions of both performance assessments from the preservice teachers were overwhelmingly negative. Elements of the reported dissatisfaction with the experience aligned with previously mentioned drawbacks of the high-stakes nature of licensure assessments: lack of feedback, unnecessary stress, and being overly time-consuming.

Summary of literature addressing TPAs. Comparing preservice teachers’ scores on TPAs with their students’ achievement scores (Darling-Hammond et al., 2013; Pecheone & Chung, 2006; Vandervoort et al., 2004; Wilson et al., 2014) and other accepted measures of teacher quality like GPA and *PRAXIS* scores (Burrack & Payne, 2016) validated the use of TPAs as high-stakes teacher licensure assessments. By comparing preservice teachers’ scores on TPAs with their students’ test scores, these studies provide evidence supporting that TPAs used as teacher licensure measures can effectively measure teaching skills.

The validity of the internal mechanisms of TPAs such as video-recording and reflection allowed for the assessment of skills that cannot be measured by multiple-choice exams (Burrack & Payne, 2016; Wilson et al., 2014). Thus, portfolio assessments have the potential to measure the deeper levels of metacognitive skills advocated by Lee Shulman (1998). By honing the skills

thought to produce quality teachers like reflective practice and analytical skills (see Vandevooort et al., 2004), portfolio assessments seem like a logical step in teacher licensure assessment policy.

Refinement of TPAs should be based on research on the perceptions of the preservice teachers who must complete them. Therefore, the studies reviewed above are critical. In particular, research that informs understanding of how high-stakes use and formative elements of TPAs are perceived can help guide the way preservice teachers approach the assessment and gauge whether the high-stakes use and formative elements are viewed in a balanced way, and, in turn, inform the discussion among TEPs as to the effective use of portfolio assessments. The general conclusion from the literature suggests that preservice teachers see the TPA process as difficult but helpful (Campbell et al., 2016; Okhremtchouk et al., 2009). But the negative perspectives can be attenuated by TEPs preparing their students for the process and focusing more directly on the skills promoted by TPAs (Okhremtchouk et al., 2009).

Nonetheless taken together, the evidentiary value of the significant relationships between performance on TPAs and student test scores accompanied by the political push to standardize preservice teacher skills suggests that portfolio assessments may enjoy a certain degree of durability as both educational policy and culminating practice in preservice teacher education.

Empirical Research on the edTPA

This section of the review is the most substantial because of the multitude of ways the edTPA has been studied in the short time it has been implemented as policy. Teacher portfolio assessments have been established as more reliable mechanisms of teacher accountability than their traditional predecessors while their use has spread across the United States (Cochran-Smith et al., 2013). The edTPA is a nationally standardized TPA that is used differently across states;

thus, research specific to it varies greatly in terms of intent, focus, and site location (Reagan et al., 2016).

Empirical research on the edTPA examined in this section is separated into two main categories: score data analyses and preservice teacher interactions with the edTPA. The former category provides internal and external validity for the edTPA, supporting its place in current licensure policy. The latter provides information on preservice teachers' experiences with and perceptions of the edTPA, thereby guiding key methodological choices for the current study.

Various uses for edTPA scores. Hanushek (2011) argued that an accurate quantifiable representation of skill was necessary for effective licensure policy. State legislatures and some education professionals believe that numerical scores can be used to accurately represent preservice teachers' readiness for the classroom (Sato, 2015; SCALE, 2015); a premise that is questioned in music education (Myers, 2016; Parkes & Powell, 2015; Robinson, 2015). Despite this lack of consensus, current research analyzing edTPA scores offers some findings that are used to inform the current study.

Predicted teacher quality through edTPA scores. As of this writing, there is only one study that connects preservice teachers' performance on the edTPA with their students' standardized test achievement. Goldhaber, Cowan, and Theobald (2016) compared 277 reading and math (Gr. 4-8) preservice teachers' scores on the edTPA's with their students' standardized test scores through a VAM analysis. The study took place during the pilot phase of the implementation of the edTPA in Washington state. Findings showed that reading teachers who scored above the cut score on the edTPA had better teaching performance in the form of student test scores compared to their counterparts who scored below. The results for math teachers were

similar but had wider confidence intervals. Additionally, more math teachers scored below the cut score than the reading teachers in the sample.

The researchers speculated that one reason for this difference may be that the writing-intensive nature of the edTPA may be more challenging for those teachers predisposed to teaching mathematics and urged caution when implementing the edTPA as a screening device for identifying unprepared teachers.

Comparing edTPA scores with other measures of readiness. Evans, Kelly, Baldwin, and Arnold (2016) determined correlations between overall GPA, major GPA, TEP benchmark assessments, and edTPA scores. Sixty early childhood preservice teachers one TEP from Ohio began the study, but only 43 completed all three TEP benchmark exams as well as the edTPA. The benchmark exams included: 1) a case study designed to collect and analyze observable data during a practicum experience in the second year 2) a family culture project meant to help preservice teachers engage with students of various levels of need in the third year, and 3) an integrated investigation unit that is similar in structure to the edTPA in the final semester of the program before student teaching.

Analyses revealed a positive, moderate relationship between overall edTPA scores and preservice teacher GPA ($r = .61, p < .05$). There was a slightly stronger relationship between overall edTPA scores and the GPA for the preservice teachers' major subject ($r = .64, p < .001$). Relationships only existed between the scores on the Integrated Investigation Unit and the edTPA ($r = .57, p < .001$). However, scores on benchmark assessments completed by undergraduates in their second or third year of the TEP were not significantly related to edTPA scores. The researchers concluded that this is likely due to the preservice teachers not connecting the knowledge and skills represented by the benchmark assessments with the expectations of

teaching portfolios like the edTPA. Evans and colleagues also suggested that research regarding TPAs should focus on links between the way teachers are prepared and information from preservice teachers who have completed the TEP.

Similar comparisons have been made between preservice teachers' scores on the edTPA and nonportfolio-based assessments used for teacher licensure. Nelson (2014) analyzed scores from 69 Tennessee preservice teachers who completed both the *PRAXIS* II for grades K-6 and the edTPA in order to provide guidance to states looking to switch from nonportfolio-based assessments to a TPA. The analysis yielded mostly weak correlations between the two measures. Also, preservice teachers' GPAs were weakly correlated with their edTPA final score ($r = .39, p < .01$). Due to the lack of relationship between the edTPA final score and scores on traditional measures, Nelson suggested the two types of assessments measure different types of skills with the edTPA addressing deeper levels of understanding necessary to be effective in the classroom than those measured by nonportfolio-based assessments (p. 63).

Conclusion of edTPA score analyses. Although research utilizing edTPA scores tends to be state or institution specific, findings indicate that an edTPA score is a valid quantitative indication of preservice teachers' readiness to enter the classroom (Goldhaber, Cowan, & Theobald, 2015; Wilson et al., 2016). The comparisons of edTPA scores with other tests of readiness such as TEP benchmark assessments or the *PRAXIS II* suggest that the edTPA measures different skills than nonportfolio-based assessments. Nelson (2014) showed a non-significant relationship between scores on the edTPA and the *PRAXIS II*, similar to the findings of Burrack and Payne (2016) and Wilson et al. (2014), both of which compared other TPAs to the *PRAXIS II*.

The skills represented by the edTPA are based on analysis, teaching adjustments in real classroom settings, and reflection as opposed to recalled pedagogical and content knowledge as measured by traditional licensure assessments. It is possible that measuring these formative teaching elements is a better indicator of teacher success than the skills assessed by traditional multiple-choice, machine-graded licensure exams. Preservice teachers completing the edTPA could benefit from the formative features of the assessment and thereby increase confidence in their readiness to teach.

Preservice teachers' experiences with and perceptions of the edTPA. The individual experiences and perspectives of the preservice teachers, cooperating teachers, teacher educators, and policy-makers constitute two substantial categories of empirical research on the edTPA. This body of work provides a ground-level account of what is happening as preservice teachers and TEPs navigate the demands of the edTPA.

Experiences of preservice teachers with the edTPA. Coloma (2015) surveyed 199 Miami University (Ohio) preservice teachers who completed the edTPA as a requirement for their degree program, but not to obtain licensure. Preservice teachers' portfolios were submitted to and scored by an independent evaluator and the passing score was established by the TEP. Data were drawn from a 28-question survey consisting of five-point Likert-style prompts, binary responses, and an open response question about the edTPA. Based on the analysis of survey and open responses, three major findings regarding preservice teachers' experiences with the edTPA were discovered. The preservice teachers reported time and stress in completing the edTPA tasks, held negative views regarding outsourcing of teacher evaluation, and expressed frustration over the incompatibilities between what the TEP provides and what the edTPA requires. Survey

responses also suggested that the preservice teachers did not experience an enhancement of their planning, instruction, or assessment skills by completing the edTPA.

Surveys have also been combined with interviews to gain a deeper understanding of the edTPA experience. Greenblatt (2016) examined preservice teachers' experiences with the edTPA by surveying 61 New York State preservice teachers and interviewing fourteen. Greenblatt found that the implementation of the edTPA did not meet its own goals. Seventy-four percent of the survey respondents felt that the edTPA interfered with their student teaching and 90% were overwhelmed by the experience. Furthermore, Greenblatt contended that the edTPA represented a "privileging [of] certain information and skills" (p. 31) in teacher qualities, thereby perpetuating privileged values in teaching. In other words, the acceptability of the edTPA as baseline of teacher ability created a loop where new, and possibly improved pedagogical techniques, are oppressed in favor of traditional instructional methods (see also Kuranishi & Oyler, 2017). Based on these findings, Greenblatt argued that the final performance assessment for preservice teachers should be in the hands of individual TEPs instead of an external entity.

Similar to previous findings from research on the PACT, when preservice teachers complete the edTPA, they experience stress when completing the edTPA as a result of disparity between the assessment's intent and how they interpret it. McKibbin (2016) characterized these frictions as the macro (political and economic) and micro (lived experience) levels of edTPA policy implementation. McKibbin intended to determine whether the TEPs and preservice teachers were experiencing the expressed macro goals of the edTPA: to function as an assessment of a preservice teacher's readiness as a realization of the policy to increase preservice teacher accountability.

After compiling data using an in-depth narrative, McKibbin found mixed results about the edTPA's effectiveness as a licensure assessment. Different experiences were described through stories told by McKibbin and two preservice teachers in New York. Another story was told through document analyses of policy briefs released by policy makers in New York. The researcher, as a participant in the study, felt compelled to help her preservice teachers pass the assessment to earn their teaching license despite personal reservations about the policy. The preservice teachers experienced frustration over the mechanics of the assessment and felt the edTPA was just another way to, as one participant described, "play the game" (p. 390) instead of attempting to improve their teaching through formative teaching tasks. In contrast, New York policy-makers argued that the assessment was a strong accountability measure because it was a more thorough assessment of preservice teacher abilities.

McKibbin posited that the edTPA did what the policy makers wanted, which was to hold preservice teachers and TEPs more accountable in the modern educational environment. The individual experiences of preservice teachers with the edTPA compared to the intentions of government officials illustrated a critical comparison that described how the policy was integrated into TEP curricula. The differing experiences showed disconnect between the edTPA's macro-level intentions and how the assessment was experienced at the micro level.

Teacher educators also tended to feel overwhelmed and as though they were crossing philosophical lines in efforts to support students completing the assessment. Cronenberg, Harrison, Korson, Jones, Murray-Everett, Parrish, and Parsons (2016) described the interactions between teacher educators and their students as they prepared for high-stakes edTPA policy implementation in Illinois. While this study was from the perspective of the teacher educators, the preservice teachers played an equally important role in the narrative.

One of the authors expressed deep concern in reference to how she compromised her own values and boundaries in the interest of helping students. The teacher educator wrote:

Philosophically, I crossed a line with my absorption with the rules and regulatory bureaucracy of the edTPA. The regret I have over this has plagued me for weeks, making me exhausted, sad, and angry in a cycle of emotional turmoil from which I struggle to escape. While students appreciated my help on the edTPA, I am completely deflated by my preoccupation with the rules. (p. 120)

This lament was echoed by her students, who often would send panicked emails about the administrative demands of the edTPA like organizing files for the portfolio. Another author would receive urgent emails from students who missed deadlines set by the TEP for expected completion of edTPA tasks, particularly in reference to the writing demands taking longer than the preservice teacher expected.

By the end of the first year of preparation for the edTPA policy implementation, Cronenberg et al. questioned whether they were teaching how to teach or teaching toward compliance with the edTPA. The teacher educators worried that their students, like them, were “no longer learning [about teaching] but attempting to match [their] teaching to the rubric” (p. 130) by completing the edTPA. This distinction led to larger questions pertaining to whether it is possible to accurately assess a preservice teacher’s ability through a singular assessment completed independent of the TEP.

The edTPA experience and how it contributed to preservice teacher identity were the subjects of a study by Huston (2016). The researcher relied on multiple in-depth interviews with four elementary education preservice teachers and written artifacts from their student teaching to explore elements of teacher identity. Constant comparative data analysis occurred

simultaneously with the data collection to prepare for subsequent interviews. Results interpreted from the interviews and artifacts suggested a favorable view of edTPA's video component due to its emphasis on reflective practice in teaching. Participants valued video recording their teaching because it provided opportunities to discuss teaching episodes with cooperating teachers and university supervisors using a common point of reference. Reflection using video recordings also afforded preservice teachers a chance to hone their ability to interpret information presented during an instructional session. By viewing their own teaching episodes with supervisors, preservice teachers were able to further understand their roles and identities as teachers in the classroom, adding support for recommendations to use video recording in reflective practice when assessing the abilities of preservice teachers.

Preservice teacher perceptions of the edTPA. Results from a pair of studies by Meuwissen and various collaborators have shown how individuals completing the edTPA perceive its place and purpose with regard to student teaching. Meuwissen, Choppin, Shang-Butler, and Cloonan (2015) collected survey data from 104 preservice teachers in New York and Washington State to describe their knowledge of the edTPA's intent. The survey instrument was divided into four categories: preservice teachers' knowledge of the edTPA's intentions, edTPA's place in student teaching, preservice teachers' opinions about the edTPA, and their experiences with the assessment. Participants in the study had recently completed student teaching and had passed the edTPA. Researchers evaluated the experiences and perceptions of preservice teachers in the early implementation of edTPA as a licensure assessment.

Generally, preservice teachers' perceptions of the edTPA were negative, but conveyed some positive opinions about its formative tasks. More than half of the respondents from both states disagreed with statements suggesting that the edTPA was a fair assessment, had clear

goals, and was consistent with their idea of good teaching. Similar patterns were also seen when asking preservice teachers how knowledgeable their cooperating teachers were about the edTPA. Preservice teachers had some positive perceptions about the edTPA: 78% of preservice teacher respondents either agreed or strongly agreed with a statement inquiring about whether the edTPA encouraged planning innovative lessons and 87% of respondents indicated they were encouraged to operate independently in planning and carrying out their own lessons.

Other perceptions of the edTPA differed by state. Preservice teachers in New York held a slightly less favorable perception than their counterparts in Washington. For example, 23% of New York respondents strongly disagreed with the statement, “The goals of the edTPA are consistent with my ideas of good teaching,” whereas 5% of Washington respondents strongly disagreed. The researchers hypothesized that cross-state differences were determined by whether the implementation of the edTPA included a pilot phase (Washington) or not (New York).

In a follow up investigation, Meuwissen and Choppin (2015) interviewed 24 New York preservice teachers who completed surveys for Meuwissen et al., (2015) in order to explore particularities in their perceptions of the edTPA. Four general themes were extrapolated from the first study to serve as guideposts for the second: knowledge of the edTPA, perception of the edTPA’s place in student teaching, preservice teachers’ opinions about the assessment, and their experiences in constructing the edTPA.

Analysis of the interview data underscored three main conflicts within the edTPA process. First, the researchers discerned differences between preservice teachers’ perceived support and the actual support they were allowed. For example, one participant experienced unnecessary stress when they believed they were not allowed to seek direct help in constructing the portfolio when, in fact, they were allowed to confer with university faculty and their

cooperating teachers about constructing the edTPA portfolio. These perceived *support tensions* (p. 5) were the result of the conflicts between the summative, high-stakes nature of the licensure assessment and the formative structure of the edTPA. Many of the preservice teachers believed all they were allowed to do was “read the handbook” (p. 11).

Next, the edTPA’s definitions of teaching responsibilities were in opposition to what was expected by the TEP. One respondent commented on the edTPA’s lack of emphasis on teacher-student relationships, an aspect of teaching valued greatly by their TEP. In their words, “I think a lot of edTPA has to do with...how you’re collecting data and what you’re using it for, not necessarily those great teaching moments or relationships you build with your students” (p. 14). The final tension was preservice teachers’ sense of agency in the process. Preservice teachers were guests in another teacher’s classroom and completing the edTPA did not always align with the classroom practices and curriculum of the cooperating teacher. This tension was often exacerbated by a cooperating teacher’s lack of knowledge about or unwillingness to accommodate the demands of the edTPA.

Although these preservice teachers reported that they found ways to mitigate these conflicts, their existence was due to the “edTPA’s dual positioning as: (1) an accountability mechanism summatively used to gatekeep beginning teachers’ entry into the profession; and (2) a formative tool for learning by gathering, synthesizing, and reflecting on evidence of teaching practice” (p. 18). Despite the existence of these anxieties created by conflicting goals of high-stakes use and formative elements, the researchers speculated that the tensions were productive and educative for the preservice teachers in the initial implementation of edTPA as a licensure requirement. Meuwissen and Choppin ultimately recommended that TEPs gain expertise in the

edTPA in order to provide clear support for their preservice teachers who are required to complete it as part of their teacher licensure requirements.

Choppin and Meuwissen (2016) drew from the same participant pool as the previous two studies to question the ecological validity of the edTPA. The authors defined ecological validity as, “how extensively an assessment represents important functional aspects of realized practice, in this case teaching” (p. 41). By interviewing 24 of the participants from Meuwissen et al. (2015), the researchers determined whether completing the edTPA was an authentic representation of teaching. The main finding from the interviews was that the video recording component threatened the ecological validity of the assessment. The preservice teachers were overly preoccupied with capturing the entirety of their teaching skills within a single ten-minute video clip. This time restriction tended to make the preservice teachers rush through their lessons instead of letting them develop more naturally. Some preservice teachers also reported inauthenticity in their teaching by expecting their students to sit in the same place for the entirety of a lesson to accommodate the video recording demand.

Formative opportunities for preservice teachers to learn about their own teaching practice exist within the structure of the edTPA. Lin (2015) investigated exactly this through a case study including seven elementary preservice teachers, two focus groups of teacher candidates, and a cohort survey of elementary preservice teachers at the University of Washington ($n = 44$). Primary data were taken from the seven preservice teachers with the focus groups and survey meant to provide a larger context for the preservice teachers’ perceptions of the edTPA. Among the requirements of the edTPA was constructing a multi-lesson learning segment, which Lin saw as an opportunity for the preservice teachers in this study because they had never fully implemented a lesson plan or unit in their TEP coursework prior to the edTPA. Also, the edTPA

provided a space to reflect on the implemented lesson and required the preservice teachers to analyze their own teaching effectiveness through video and reflection.

The conflicts noted by Lin (2015) resembled those of Meuwissen and Choppin (2015), such as participants feeling overwhelmed by the process but still noticing improvements in teaching skills through tasks like assessment analysis and reflective practice. Similarly, Lin was able to identify challenges to a preservice teacher's ability to complete the edTPA when placed as a guest in their cooperating teacher's classroom. One participant in particular was assigned by their cooperating teacher to teach a poetry lesson for their learning segment, challenging the preservice teacher's agency in completing the edTPA portfolio tasks.

From the preceding set of studies, it is clear that student teachers' perceptions of the edTPA were affected by their roles as preservice teachers and their relationship with their cooperating teacher. But how do cooperating teachers view their role in the edTPA process and how does that affect the preservice teacher's performance on the test? This was the central question of a 2016 study by Behney (2016), who compiled and utilized survey and interview data from 22 foreign language preservice teachers and seven cooperating teachers in a mixed-method design that also included preservice teachers' edTPA scores. Results showed the importance of the cooperating teacher in how preservice teachers perceive edTPA as a meaningful assessment. It should be noted, that no statistically significant relationships were found between preservice teachers' scores on the edTPA and how helpful they found their cooperating teacher.

Although it was not necessary for the cooperating teacher to be fluent in the mechanics of the edTPA, Behney (2016) proposed that the cooperating teacher must "be engaged in structured and sustained professional development that (1) addresses standards – and proficiency – based curriculum, instruction, and assessment, and (2) makes explicit that [cooperating teachers]

should provide guidance and support when the [preservice teacher] is completing edTPA tasks” (p. 285). Cooperating teachers appeared to have little effect on their preservice teachers’ scores on the edTPA, but their involvement still helped support and encourage their preservice teachers through the planning and execution of the portfolio assessment.

There is currently one study focusing on preservice music teachers’ perceptions of the edTPA. Heil and Berg (2017) compiled data for an intrinsic case study to examine the perceptions of seven music preservice teachers who completed the edTPA for the University of Colorado, but not for high-stakes licensure. Data were collected via a survey, a focus group interview, researcher field notes from the preservice teacher seminar, email correspondence between preservice teachers and instructors, and preservice teachers’ project proposals for an alternative capstone project. Similar to previous research, preservice music teachers felt pressure through complying with their own conception of quality teaching and fulfilling the expectations of the edTPA. Specifically, some preservice music teachers viewed the focus on the three-part exam structure (preparation, instruction, and assessment), reflective exercises, and video recording as positive influences on their self-assessment of their teaching. However, they also recognized that assembling the portfolio differed from the way they were taught to construct music lessons from their TEP. Ultimately, Heil and Berg recognized that exploring these differences with their preservice music teachers through open discussions contributed to their students’ political and social consciousness about teacher evaluation and licensure policy.

Conclusion of preservice teachers’ experiences with and perceptions of the edTPA.

There was no uniform experience with the edTPA across teacher discipline or TEPs; moreover, certain aspects of the test tended to be perceived as *both* cumbersome *and* helpful for improving teaching skills. However, one theme from this section provides fundamental guidance for this

study: that preservice teachers experience tensions between what the current study refers to as high-stakes use and formative elements.

Conflicted perceptions between the high-stakes use and formative elements of the edTPA exhibited a variety of potential factors. Coloma (2013) suggested that the preservice teachers find the edTPA experience burdensome, unnecessary, and oppressive when it had little bearing on licensure decisions. Similarly, results from Greenblatt (2016) and McKibbin (2016) provided mostly negative feedback from preservice teachers about their experiences completing edTPA as a high-stakes licensure assessment, which both studies suggested was related to hasty implementation of the policy and poor TEP training. A similar, but more gradual implementation policy seemed to alleviate, but not eliminate, the stress caused by the edTPA (Cronenberg et al., 2016). Policy-makers intended to improve accountability through licensure in New York, but according to Greenblatt (2016) and McKibbin (2016), created a chaotic environment due to poor communication with TEPs and the unclear intentions imparted to the preservice teachers.

In contrast to the negative aspects of the high-stakes use of the exam, formative tasks in the edTPA have provided preservice teachers with opportunities to improve their teaching practice. Huston (2016) described how the utilization of the video component of the edTPA created meaningful experiences to build preservice teacher identity. Choppin and Meuwissen (2016) found that difficulty with the video recording component of the edTPA could negate any possible formative benefits. Heil and Berg (2016) concluded that preservice music teachers navigated through stress associated with the edTPA through understanding the structure of the assessment and the purpose of the reflective practice. Although the preservice teachers in both studies mentioned the significant time commitment and difficulty in completing the portfolios, their overall experience was meaningful due to the formative tasks of the edTPA, especially

those that encouraged reflective practice. Therefore, it seemed that a more meaningful experience with the edTPA could be fostered by TEPs if they were willing to utilize it as a formative tool despite its use as a high-stakes assessment policy. TEPs could also help ease tensions related to the edTPA's expectations by scaffolding its structural demands through coursework. This way, preservice teachers can be aware of the edTPA's tasks prior to student teaching.

As Lin (2015), Meuwissen and Choppin (2015), and Meuwissen et al. (2015) demonstrated, asking preservice teachers about their perspectives of the edTPA yielded rich data reflecting preservice teachers' feelings about the assessment and their perception of their readiness to teach. In general, literature inquiring about stakeholder perceptions of the edTPA suggested that preservice teachers who see the edTPA as a progressive step in their professional development also viewed it as an opportunity to learn about their teaching through the completion process. However, preservice teachers tended to find little meaning and opportunity to learn about their teaching through the assessment when they viewed the exam as a high-stakes barrier or oppressive tool used by the government.

Preservice teachers' perceptions were influenced by how the TEP views and prepares students for the edTPA (Greenblatt, 2016). TEPs that provide clear information about the edTPA and the enthusiasm they exhibit positively influenced preservice teachers' perceptions of the edTPA process, particularly if the TEP was willing to act as an additional resource and support for preservice teachers struggling with either the logistical or conceptual demands of the assessment (Meuwissen & Choppin, 2015). Okhremtchouk et al (2009) drew similar conclusions regarding perceptions of the PACT.

Additionally, the support offered by the cooperating teacher can impact the performance on the edTPA (Behney, 2016; Lin, 2015; Meuwissen & Choppin, 2015). These factors potentially contribute to preservice music teachers' perspectives of the edTPA. While there are a variety of influencing factors that could contribute to preservice music teachers' perceptions of the edTPA, this study will only focus on describing and analyzing the perceptions while recognizing that multiple factors can contribute to the variability and changes in perceptions throughout the student teaching semester.

Synthesis of the Literature

The literature examined for this study served two purposes. First, it established the validity of teacher portfolio assessments as both high-stakes licensure exams and formative exercises for preservice teachers. Second, it established that the high-stakes use and formative elements of the edTPA created varied and conflicting perceptions from the preservice teachers who complete the portfolios. The research questions for the current study were built from this literature and applied to preservice music teachers.

Variations in the perception of the edTPA seemed to result from the inherent conflict between the edTPA's high-stakes use and formative elements. The literature on preservice teacher perceptions pointed towards preservice music teachers' perceptions of high-stakes use element such as: feelings of readiness (Behney 2016; Greenblatt, 2016; Meuwissen et al., 2015; Okhremtchouk et al., 2009), familiarity with the format of the edTPA (Greenblatt, 2016; Heil & Berg, 2016; Huston, 2016; McKibbin, 2016; Meuwissen & Choppin, 2015), and confidence regarding passing the edTPA (Behney, 2016; Greenblatt, 2016; Line, 2015; Meuwissen et al., 2015; Meuwissen & Choppin, 2015). The literature also suggested that preservice music teachers would recognize formative dimensions such as: justifying instructional planning and adjustment

(Greenblatt, 2016; Heil & Berg, 2017; Huston, 2016), opportunities for professional growth (Campbell et al., 2016; Lin, 2015; Meuwissen & Choppin, 2015), and benefits through reflection (Heil & Berg, 2017; Huston, 2016; Lin, 2015). The realization of these constructs and the way they will be measured will be discussed in the next chapter.

CHAPTER 3

METHODOLOGY

The purpose of this study is to investigate preservice music teachers' perceptions of both the high-stakes use and formative elements of the edTPA. Teacher portfolio assessments such as the edTPA are built on strong theoretical foundations believed to represent tasks that resemble practices of quality teachers like self-assessment through reflection (Sato, 2015). But preservice teachers' perceptions of formative skills within TPAs have been mixed and often conflicting when TPAs are used as high-stakes licensure assessments (Lin, 2015; Meuwissen & Choppin, 2015; Meuwissen et al., 2015; Okhremtchouk et al., 2009). Furthermore, those perceptions have been known to vary and change over the course of the student teaching semester (Campbell et al., 2016).

Similar to its predecessor, the National Board Certification process, the edTPA includes formative elements meant to ensure that teachers reflect on their teaching to continually improve their teaching practice and adjust their teaching based on assessment analysis (Koppich & Humphery, 2006; Sato, 2015; SCALE, 2015). The edTPA is also used as a high-stakes barrier assessment for licensure in states like Illinois, the site for this study. Robinson (2015) suggested that using formative exercises meant for professional growth for high-stakes purposes could lead to the persons being assessed perceiving conflicting and confusing goals in the high-stakes licensure measure. This confusion with regard to the edTPA has been documented in previous literature (Greenblatt, 2016; Meuwissen & Choppin, 2015) as well with other predecessors like

the Performance Assessment of California Teachers (PACT) (Campbell et al., 2016; Okhremtchouk et al., 2009).

This chapter describes the methodology necessary to collect and analyze preservice music teachers' perceptions of the edTPA in order to answer the study's four research questions:

1. What do preservice music teachers perceive about the edTPA's use as a high-stakes assessment?
2. What do preservice music teachers perceive about the formative element of the edTPA that are intended to inform and improve their professional practice?
3. What are the relationships between preservice music teachers' perceptions of high-stakes use and formative elements of the edTPA?
4. How do preservice music teachers' perceptions of the edTPA change between the beginning of the student teaching semester and after they complete the portfolio?

Next, the instrumentation that was developed and utilized to collect data to answer the questions will be described followed by a description of the sample of preservice music teachers who participated in this study. The data collection procedure will then be explained. Finally, the variables will be defined and the analysis techniques described.

Research Design

This study utilized a quasi-experimental one-group within-participants pretest-posttest design (Shadish, Cook, & Campbell, 2002, pp. 108-113) to address the research questions. Because the current study was conducted in an open system, confounding variables could have affected changes in observable measures (Cook & Campbell, 1979, p. 34). The observable measures, in this case, being preservice music teacher self-reported perceptions of the edTPA. From research involving preservice teachers in general education and their perceptions of the

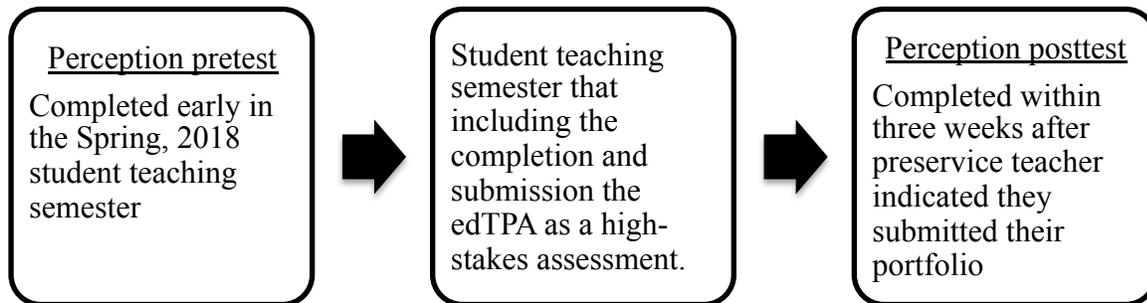
edTPA, possible confounding variables could include: preparation from the Teacher Education Program (Greenblatt, 2016; McKibbin, 2016), support from the Teacher Education Program during student teaching (Meuwissen & Choppin, 2015), and knowledge of the cooperating teacher about the edTPA (Behney, 2016).

The population for this study was preservice music teachers in Illinois who, because of state licensure requirements, were required to complete the edTPA as a high-stakes measure. Illinois was also selected as the site of the current study due to the researcher's professional experience and relationships with the TEPs in that state. The population was highly specific, but necessary for studying the perception of the edTPA because every state has a slightly different policy in regard to the edTPA (see Reagan et al., 2016). Consequently, the sample was not large enough to allow for the use of covariates to statistically control for differing factors or the separating of the sample based on specific differences. As a result, the current study was only concerned with defining, describing, and analyzing preservice music teachers' perceptions and not the possible mitigating factors that could affect those perceptions or perceptual changes regarding the edTPA throughout the student teaching semester.

The use of a survey questionnaire to collect and measure preservice music teachers' perceptions of the high-stakes use and formative elements of the edTPA was appropriate for this study because surveys can produce "quantitative or numerical descriptions about some aspects of [a] study population" (Fowler, 2014, p. 1). In the case of the current study, preservice music teachers completed a researcher-developed questionnaire designed to measure their perceptions of the edTPA. They completed these questionnaires on two occasions: early in the Spring 2018 student teaching semester and after they submitted their edTPA portfolio for scoring (Figure 1). Responses to the questionnaire provided the variables necessary to define and analyze preservice

music teachers' perceptions by having them rate items that addressed specific features in the edTPA that were extrapolated from the literature.

Figure 1. Research Design



It has been acknowledged that this study's design was limited by its inability to control for potential factors affecting preservice music teacher perceptions of the edTPA. However, regardless of the particular differences between the individual student teachers or the settings of their student teaching semester, the focus in the current study is describing preservice music teacher perception and, as encapsulated in the research questions, whether perceptions vary, how perceptual elements relate, and how the perceptions change by virtue of completing the edTPA as a high-stakes assessment. The pretest-posttest design allows preservice music teachers to both anticipate and recall the strength of their perceptions about the high-stakes use and formative elements supposedly represented by the edTPA. This provides preservice music teachers an opportunity to both predict and reflect on their experience preparing for and submitting a completed edTPA as a high-stakes assessment.

Questionnaire Development

Preservice music teachers' perceptions of the edTPA were collected and measured using a researcher-designed questionnaire administered online at the beginning of the student teaching semester (pretest) and after respondents completed the edTPA (posttest), but before they learned

the outcome of the assessment. The content and procedures of the questionnaire were derived from literature on non-music preservice teachers' perceptions of completing portfolio assessments and displayed in Table 1. Both the high-stakes use and formative elements of the edTPA were comprised of three possible perceptual variables. The high-stake use variables were: feelings of readiness to teach through the edTPA (Readiness), familiarity with the edTPA format (Format), and confidence regarding passing the edTPA (Passing). The formative variables were: instructional planning and adjustment through the edTPA (Planning), professional growth through completing the edTPA (Growth), and benefits through reflection (Reflection).

Table 1

High-Stakes and Formative Elements of edTPA Completion Used to Design the Questionnaire

Perception of the edTPA (Variable Name)	Supporting Literature
Element of High-Stakes Use	
Feelings of readiness to teach through the edTPA (Readiness)	Behney (2016); Greenblatt (2016) Meuwissen et al. (2015); Okhremtchouk et al. (2009); Parkes & Powell (2015)
Familiarity with the edTPA format (Format)	Greenblatt (2016); Heil & Berg (2016); Huston (2016); McKibbin (2016); Meuwissen & Choppin (2015); Parkes & Powell (2015)
Confidence regarding passing the edTPA (Passing)	Behney (2016); Greenblatt (2016); Lin (2015); Meuwissen et al. (2015); Meuwissen & Choppin (2015)
Formative Element	
Instructional planning and adjustment through the edTPA (Planning)	Greenblatt (2016); Heil & Berg (2017); Huston (2016); Parkes, et al., (2013)
Professional growth through the edTPA (Growth)	Campbell et al. (2016); Lin (2015); Meuwissen & Choppin (2015); Okhremtchouk et al (2012)
Realizing benefits of reflection (Reflection)	Heil & Berg (2017); Huston (2016); Lin (2015); Parkes, Dredger, & Hicks (2013); Powell (2016)

Pilot of questionnaire. The first version of the questionnaire included statements based on the above dimensions to which responses were given using Likert scales of either four or five

points. Questions such as, “How ready did you feel to complete the edTPA when you started student teaching?” were followed by four-item Likert-style response scales ranging from “Not ready at all” to “Extremely ready.” On the five-point scale, questions such as, “How well can you implement alternative strategies in your music classroom?” were followed by responses ranging from “Not well at all” to “Extremely well.”

The draft questionnaire was piloted in the Spring of 2017. Seventeen preservice music teachers ($n = 17$) completed the initial draft of the questionnaire. Unfortunately, the pilot sample was not large enough to perform an exploratory factor analysis on the pilot data (See Brown & Moore, 2012; Hoyle, 2000).

Initial descriptive tests showed skewed distribution of responses suggesting that the respondents either misunderstood the wordings of the questions or were not comfortable answering the items. Specifically, (1) nearly all of the four-item responses had excess kurtosis¹ values of $|X| > 2$ and (2), about half the responses to the five-point time questions were skewed to either side (skewness $|X| > 2$). Some examples of the skewed and non-normal distributions included: responses to the four-item question about readiness had an excess kurtosis value of $X = 3.03$ and responses to the five-point question about implementing alternative strategies had a skewness value of $X = -2.38$.

In response to these observations, two changes were made to the questionnaire. First, instead of asking respondents to rate their perception of their own abilities through the edTPA, questions were worded to reflect a “direct rating task [to create] more validity” (Fowler, 2014, p. 91). For example, the question item, “How ready did you feel to complete the edTPA when you started student teaching?” was changed to “I feel ready to teach music because of the edTPA.”

¹ Kurtosis values are reported in terms of “excess kurtosis.” Perfectly normal distribution is achieved at Kurtosis $X = 3$, so kurtosis values are expressed in their relationship to 3.

Questions were also revised to represent more strictly the aforementioned high-stakes use and formative elements of the edTPA. For example, the question “How well can you implement alternative strategies in your music classroom?” was changed to “I can adjust a musical lesson during a class to help a struggling student.” These changes in wording of the questionnaire items allowed for a clearer use of a bipolar scale (i.e. a continuum scale that clearly allows for respondents to strongly agree or disagree).

Next, a seven-item scale was chosen for all items due to its advantages when asking questions using a bipolar scale (Krosnick & Fabrigar, 1997) instead of the four- or five- point closed continuum Likert-type response scales. The seven response options were: strongly disagree, disagree, somewhat disagree, neither agree/disagree, somewhat agree, agree, and strongly agree. The seven-point scale adheres to the theory that “people might be inclined to think of their liking of an object as being either slight, moderate, or substantial” (Krosnick & Fabrigar, 1997, p. 144) while still providing a midpoint for respondents. As Weijters, Cabooter, and Schillewaert (2010) suggested, providing a midpoint to continuum response reduces the chance that respondents give contradictory indicators of opinions (i.e., answering on opposite sides of agree/disagree for questions with similar intentions) while not reflecting ambivalence in the respondent’s opinion on the topic.

Final Questionnaire Design

The pre and posttest versions of the questionnaire contained the same 25 items addressing preservice music teachers’ perceptions of the high-stakes use and formative elements of the edTPA (See Appendix B for a full copy of the questionnaire). Each questionnaire item is also presented below in Table 2.

The pretest version of the questionnaire contained demographic response questions asking for the preservice teacher’s gender, race, specialty (General, Band, Chorus, Orchestra), and grade level of the setting used for completing the edTPA. To facilitate the administration of the posttest, respondents provided two additional pieces of information on the pretest: (1) the edTPA deadline by which they were planning on submitting their portfolio so the posttest could be sent to the respondents after that date, and (2) the email address to which the link to the posttest would be sent.

Table 2

Item Statements Organized by Element and Intended Variable

Element	Variable	Questionnaire (Item #)
High-Stakes Use		
	Readiness	I can accurately describe the effectiveness of my edTPA lesson (1) I feel ready to teach music because of the edTPA (6) I can connect my edTPA plans to musical standards (8) I feel ready to teach music through preparation of the edTPA portfolio (11) I feel ready to teach music through the completion of the edTPA portfolio (12) The edTPA is a fair assessment of my music teaching ability (15)
	Format	I understand the edTPA’s prompts and rubrics for K-12 Performing Arts (13) I know where to find resources about the edTPA for K-12 Performing Arts (14) The goals of the edTPA are consistent with the goals of my music education program (16) I am not concerned about the administrative elements of the edTPA (i.e. uploading documents, video recording, rules of the assessment) (24) The edTPA detracted from my overall music student teaching experience (25)

Table 2, cont.

Element	Variable	Questionnaire (Item #)
High-Stakes Use		
	Passing	I am not worried about passing the edTPA (9) The score I earn on the edTPA reflects my abilities as a teacher (18) My university gave me the tools to perform well on the edTPA (19)
Formative		
	Planning	I can analyze and evaluate informal assessments as described in the edTPA (2) I can adjust my music instruction based on my analysis of assessment data (3) My music lesson plans for the edTPA are similar to how I have been taught to plan through my university (4) I can adjust a musical lesson during a class to help a struggling student (5) I can plan my music lessons to be adaptable for students with disabilities (10)
	Growth	The edTPA can help me improve as a music teacher (21) The edTPA highlighted my strengths for teaching music (22) The edTPA highlighted my weaknesses for teaching music (23)
	Reflection	The reflective practice of the edTPA helps me analyze my music teaching (7) My reflective abilities will be a strong component of my edTPA portfolio (17) The edTPA helps me think like a music teacher (20)

Note: The questionnaire items were randomized for each respondent by the online survey's software to control for order bias. The item numbers provided here and throughout this document are for ease of discussion.

Relationship of Questionnaire Items to Research Questions

This section discusses the items of the questionnaire organized by research question.

Relevant research provided justification for each element and variable regarding perceptions of the edTPA encompassed by each research question. The analytical plan for each research question will be detailed later in this chapter.

Questionnaire items describing the perceptions of high-stakes use (Research question one). The first research question was focused on preservice music teachers' perceptions

of the high-stakes use in anticipation (pretest) and completion (posttest) of the edTPA. The element of high-stakes use of the edTPA was represented in the questionnaire by fourteen items, representing three intended variables to compose the element.

Self-perception of being ready to teach through completing the edTPA represents the first intended high-stakes variable: Readiness. The edTPA claims to be a measure of one's readiness to teach (Greenblatt, 2015; Meuwissen et al., 2015; Parkes & Powell, 2015; SCALE, 2015). Preservice music teachers must demonstrate a certain level of readiness to obtain licensure, making readiness related to the high-stakes use element of the edTPA. In general, items about readiness remained vague because the term "readiness" has still yet to be consistently defined. For example, neither Greenblatt (2015) nor Meuwissen et al. (2015) explicitly defined "readiness," but both used the term numerous times to describe the goals of the edTPA. In contrast, Parkes and Powell (2015) referred to readiness for music teachers as "an effective measure of teaching quality in arts classrooms where context and curriculum vary widely, largely as a result of opportunity-to-learn issues" (p. 106). Imprecision of language in the literature influenced the wordings of the items addressing the Readiness variable (items 6, 11, 12, & 15) by allowing preservice teachers to make their own definition of "readiness." Also, an item regarding teaching expectations like standards-based lessons (Greenblatt, 2016; Okhremtchouk et al., 2009) was created to address readiness (item 8).

The second intended variable was respondents' familiarity with the format of the edTPA (Format). The video-recording and online upload of the teaching segment materials (item 24) was considered to be an element of the high-stakes use of the test because if a preservice teacher incorrectly or carelessly completes the administrative tasks, they risk failing the assessment (Huston, 2016; Meuwissen & Choppin, 2015). Understanding the edTPA's expectations through

rubrics (item 13), aligning the edTPA's goals with those of the teacher education program (item 16), and finding resources for help (item 14) were considered high-stakes because a misunderstanding or dismissal of the language in the rubrics, or the goals reflected within, would make navigating the edTPA's expectations difficult (Greenblatt, 2015; Heil & Berg, 2017; McKibbin, 2015). Finally, the edTPA's format may also differ so much from what preservice music teachers have been taught about teaching that it possibly detracts from the overall student teaching experience (item 25) by presenting unfamiliar music teaching tasks for a preservice music teacher (Myers, 2016; Parkes & Powell, 2015).

The final intended high-stakes variable was confidence regarding passing the edTPA (Passing). The defining feature that makes the edTPA high-stakes is that a preservice teacher must pass it in order to obtain licensure in Illinois. By asking directly about how strongly the broad idea of passing the edTPA is perceived (item 9), preservice music teachers described their general concern over their ability to pass the edTPA (Behney, 2016; Lin, 2015; Meuwissen & Choppin, 2015). Also, preservice teachers described how well their teacher education prepared them to pass the assessment (item 19) (Greenblatt, 2016) or how much they felt a passing score represented their general abilities as a teacher (item 18) (Meuwissen et al., 2015).

Questionnaire items describing the perceptions of formative elements (Research question two). The second research question focused on preservice music teachers' perceptions of the formative element in anticipation (pretest) and completion (posttest) of the edTPA. The formative element of the edTPA was represented in the questionnaire by eleven items, representing three dimensions of the element.

Due to its portfolio assessment format, the edTPA contains tasks meant to help teachers assess their own teaching through self-assessment and reflection (Parkes et al., 2013; Sato,

2015). Formative exercises, like reflection through video-recording, are meant to improve teaching practice through being able to more closely observe students, articulate instructional decisions, develop instructional ideas for subsequent lessons, and determine alternative strategies (Bauer & Dunn, 2003; Conkling, 2003; Powell, 2016; Rawlings, 2016; Robinson, 2015). The portfolio format also allows for the assessment of teaching skills in an authentic setting instead of relying on recalled knowledge about teaching (Parkes et al., 2013).

Perceptions of the formative element were organized by three intended variables. The first variable was how strongly preservice teachers perceived instructional planning and adjustment through the edTPA (Planning). Detailed lesson planning is expected for each edTPA lesson (item 4) so the initial clarity of the lesson can impact the success of the learning segment (Greenblatt, 2016; Heil & Berg, 2017). While the edTPA requires extensive lesson planning, it is expected that those plans be adjusted throughout the learning segment in light of informal and formal assessments (items 5 & 10) (Greenblatt, 2016). Documentation of the adjustments made during teaching (items 2 & 3) is related to the video recording and reflective elements that accompany teacher portfolio assessments (Choppin & Meuwissen, 2017; Huston, 2016; Parkes et al., 2013).

The second intended variable was perception of one's own professional growth through completing the edTPA (Growth). Preservice teachers sometimes recognize that the tasks the edTPA asks them to complete are meant to help them grow as teachers (Lin, 2015; Meuwissen & Choppin, 2015). Portfolio assessments also tend to highlight specific strengths and weaknesses in teachers (items 22 & 23), allowing them to focus on individual aspects of instruction that helps them grow as professionals such as how well the students respond to their instruction (item 21) (Okhremtchouk et al., 2012). Similarly, preservice teachers may also see a teacher portfolio

assessment as a tool to improve their own teaching practice differently between the time when they are completing it and afterward (Campbell et al., 2016).

The final intended variable was realizing the benefits of reflective practice through the edTPA (Reflection). Reflective practice is a formative exercise meant to help preservice music teachers assess their own abilities and notice aspects of their teaching they may have missed in the moment (Conkling, 2003; Powell, 2016; Rawlings, 2016). The reflective feature of teacher portfolio assessments is a critical part of the process because it also allows for a critical analysis of every decision a teacher made during a particular episode (items 1 & 7) (Parkes et al., 2013). A preservice music teacher's awareness of and comfort with the reflective features of the edTPA (item 17) represents how they may see it as a formative exercise (Choppin & Meuwissen, 2017; Heil & Berg, 2017; Huston, 2016; Lin, 2015) and to ultimately help them "think like a teacher" (item 20) (Sato, 2015; Shulman, 2005).

Questionnaire items and research question three. The third research question was designed to address any relationships between preservice teachers' perceptions of the edTPA's high-stakes and formative elements. It is possible that preservice teachers have a mix of high-stakes use and formative perceptions of the same assessment, causing a possible conflict in perceptions pertaining to its goals and, therefore, purpose (Robinson, 2015). Some literature describes a productive tension between high-stakes and formative elements, suggesting that a formative tool can help improve teaching practice despite only giving a high-stakes score (Meuwissen & Choppin, 2015; Okhremtchouk et al., 2012). To answer this research question, response data from the questionnaire items used in the previous two research questions were used.

Questionnaire items and research question four. The fourth research question attempted to explore how perceptions of the edTPA changed over the course of the semester. Similar to the third question, there were no specific items written for the fourth research question, but rather the continued concern over how well defined the high-stakes use and formative variables are in order to be able to track changes in perceptions. Since a change in perception about the edTPA's elements was expected (Campbell et al., 2016), it is important that the perceptions are collected in a sound way in order to be able to reliably calculate any changes over the course of the semester. To answer this research question, response data from the questionnaire items used in the previous two research questions were used.

Sample and Methods

In any study of preservice teachers, the population must be bounded by state and semester due to different licensure requirements and implementation plans (Reagan et al., 2015). The population for this study was undergraduate Illinois preservice music teachers who completed the edTPA as a high-stakes licensure requirement during Spring 2018. This population is challenging due to the lack of a comprehensive list of preservice music teachers across Illinois. Furthermore, a random sample of preservice music teachers in a given semester would be too small to be able to run any inferential tests on the data. For these reasons, the current study utilized a convenience sample of preservice music teachers. This sampling frame has an undercoverage selection bias because not all TEP coordinators agreed to participate, thereby excluding those members of the population from participation.

From the sampling frame, participants were recruited to be part of a convenience sample. The recruitment process began with an email sent to a representative at every TEP in Illinois that graduated at least five music teachers in 2014-15 according to the most recent Title II data (Title

II, n.d.) (Table 3). The initial email explained the study, asked about their interest in participating, inquired as to how many preservice teachers their campus will have for the Spring 2018, and when their first student teaching seminar would be (Appendix D). Any affirmative response was accepted regardless of the number of preservice teachers participating in that particular cohort. Three sites were excluded because they did not have any students enrolled in student teaching during the Spring of 2018, reducing the number of potential sites to fifteen. Representatives from five of the remaining fifteen TEPs responded positively for a 33.3 % response rate among the university representatives.

Table 3

Major institutions with music teacher preparation programs in Illinois

Illinois Teacher Education Program	Number of Program Completers in 2014-15
Augustana College	9
Bradley University	5
DePaul University	10
Eastern Illinois University	20
Elmhurst College	6
Illinois State University	29
Illinois Wesleyan University	10
Millikin University	14
North Central College	7
Northern Illinois University	8
Northeastern University	5
Northwestern University	6
Olivet Nazarene University	5
Southern Illinois University – Edwardsville	8
University of Illinois at Urbana-Champaign	23
Vandercook College of Music	25
Western Illinois University	15
Wheaton College	11

Note: Participating TEPS in **bold**

Of the TEPs that volunteered for the study, 59 preservice music teachers could have volunteered ($n = 59$) to complete the pretest questionnaire. Forty-six preservice music teachers

completed the pretest questionnaire ($n = 46$) for 78% sampling frame response rate. All 46 preservice music teachers indicated that they could be contacted to complete the posttest after finishing the edTPA. Thirty-two preservice music teachers completed the posttest ($n = 32$) for a 54% response rate among the sampling frame, and a 70% response rate among those who completed the pretest questionnaire.

Response rates. Five TEP representatives volunteered their preservice teacher cohort for this study, which represented a selection bias due to the low response rate (33.3%) of TEPs. This makes generalizations about the findings from this study difficult to apply to other preservice music teacher cohorts that use the edTPA as a high-stakes assessment (Hibberts, Johnson, & Hudson, 2012, p. 55). However, concern over the low TEP response rate would have been greater had the preservice music teacher response been low. Because all the preservice music teacher response rates are above 35%, the data collected from the participants are not as threatened by selection bias compared to response rates below the 35% benchmark (Baruch & Holtom, 2008, p. 1155). A response rate of 70% is generally considered appropriate (Hibberts, Johnson, & Hudson, 2012, p. 55). So, the convenience sample response for the pretest was sufficient. This gave reason to suggest that sampling bias would not threaten the internal validity of this study, but it does not attenuate the external validity threats attributed to the use of a convenience sample.

Participant attrition. Thirty-two of the 46 preservice music teachers completed the posttest questionnaire ($n = 32$) for a participant attrition rate of 30%, which is higher than desirable, but not unexpected in research that uses online resources for data collection (Zhou & Fishbach, 2016). The posttest sample, although limited, can still be utilized in descriptive and inferential analysis (Gravetter & Walnau, 2014, p. 180).

In order to address possible nonresponse bias, a χ^2 test of independence was calculated to compare the pre and posttest samples to establish that attrition was not associated with the gender, specialty, or TEP of the respondents and that non-participants were missing completely at random. The χ^2 test of independence used to determine the randomness of the non-respondents between the pretest and posttest was not significant for Gender, $\chi^2(1, N = 32) 0.19, p = .66$; Specialization, $\chi^2(1, N = 32) 0.08, p = .77$; or TEP site, $\chi^2(3, N = 32) 2.27, p = .52$. These results indicate that the three demographic variables did not contribute to the response rate from pre to posttest (Table 4). Therefore, no systematic reason can be found for the failure to complete the posttest after completing the pretest (Salim, Mackinnon, Christensen, & Griffiths, 2007).

Table 4

Sample Responses for Pretest and Posttest by Demographic, Respondent Specialization, and TEP Site

Demographic	Pretest ($n = 46$)	Posttest ($n = 32$)	Response %
Gender			
Male	20	13	65
Female	25	19	76
No response	1	0	0
Specialization			
Instrumental	27	20	74
Non-Instrumental	18	12	67
No Response	1	0	0
TEP			
A	19	15	78
B	20	14	70
C	2	2	100
Unknown	5	1	20

Data Collection

The online survey site through Toluna Analytics, Quicksurveys.com, was used for data collection. The participating TEP representatives received an email containing a link to the pretest to distribute to their student teaching cohort the day prior to their first student teacher seminar. The link contained the informed consent letter (Appendix E) and then, by clicking “Next,” the participants gave their consent to participate in the study by completing a questionnaire consisting of demographic information and the questionnaire about their perspectives of edTPA (Appendices A and B). All procedures qualified for Internal Review Board Exemption by the University of Illinois Internal Review Board under IRB # 18340 (Appendix C).

At the end of the pretest questionnaire, respondents were asked to provide a personal email address. The email was used to send the posttest link directly to the participants soon after they indicated that they submitted their edTPA portfolio and to track whom had not filled out the posttest so that a follow-up reminder email (Appendix G) could be sent if necessary.

Preservice music teachers completed the edTPA at different times in the semester. To account for this variability, individual emails were sent within two days after the edTPA deadline by which each participant indicated that they were going to submit their portfolio. Disseminating the posttest questionnaire in this way ensured that the participants did not know their edTPA score when they completed the posttest, which could possibly skew their perceptions (Campbell et al., 2016; Meuwissen & Choppin, 2015). The email addresses were also used to track respondents’ pre and posttest data so individual gain scores could be calculated.

Plans for Data Analysis

This section begins with a discussion of the preparation of the data for analysis and measurement scales of the data derived from questionnaire item responses. Exposition of the dependent variables for the analyses used to address the first three research questions follows. Next, details about the specific statistical tests that were conducted are presented organized by research question.

Data cleaning and transfer. Before analyzing any data, it first had to be cleaned and transferred to statistical software. Once the online questionnaires were officially closed, the raw response data for the pre and posttest were downloaded as Microsoft Excel files (.xlsx) from the survey website and cleaned in Excel (14.7.2) for Mac. The responses were converted to numerical scores with 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neither agree/disagree, 5 = somewhat agree, 6 = agree, and 7 = strongly agree using Excel's "Replace" function to save time and reduce the possibility of human error. The numerical scores were then copied as one clipboard and transferred to IBM's Statistical Package for the Social Sciences (SPSS) version 24.0 for Mac. SPSS was used to conduct all analyses for this study.

Ordinal and scale data. Data collected through continuum scales is ordinal (Fowler, 2014, p. 88) so, technically, it would have been inappropriate to run parametric tests like correlations on the questionnaire data. However, in social science research, ordinal questionnaire responses can be considered scale data as long as the ordinal scale is continuous (Borgatta & Bohrnstedt, 1981). Furthermore, if assumptions like normal distribution and fulfillment of the central limit theorem are satisfied, then ordinal data can be considered robust scale data (Newton & Rudestam, 2013). Both the pre and posttest sample sizes fulfilled the central limit theorem

(pretest $n = 46$, posttest $n = 32$), thus the application of parametric tests to the ordinal data in this study was appropriate as long as the data were normally distributed (Gravetter & Walnau, 2014).

Variables and analyses used to answer research questions one and two. Prior research provided guidance for creating six potential variables representing preservice music teachers' perceptions of the edTPA's high-stakes use and formative elements. However, these variables have not been tested for reliability nor have they been tested in a music setting, hence the need in the current study to first define and establish valid variables before attempting an inferential analysis of any data.

The first two research questions considered preservice music teachers' perceptions of the edTPA's high-stakes and formative elements. These questions were answered by reducing the questionnaire items to fewer and more reliable variables through the use of exploratory factor analysis (EFA) (Yong & Pearce, 2013). Once the questionnaire items with similar factor loadings from the EFA were tested for reliability with Cronbach's alpha (Costello & Osborne, 2005), they were averaged together to create new variables representing different dimensions of either the high-stakes use or formative elements of the edTPA. Answers for research questions three and four involved the use of these new variables in inferential analyses. Because EFA was used in some way to answer all four research questions, the next section describes the process and considerations employed in conducting the EFA as a preface to a description of the resulting variables.

Exploratory factor analysis. This analysis is commonly used to determine the interrelationship among questionnaire items in order to reveal latent constructs between responses (Brown & Moore, 2012; Costello & Osborne, 2005; Yong & Pearce, 2013). EFA also minimizes measurement error present in individual item questionnaire responses by reducing

numerous, error-prone questionnaire items to be combined into measurements of broader constructs (Fowler, 2012). For this study, variables represented the underlying perceptual constructs and were calculated by averaging the questionnaire items that loaded onto similar constructs. The dimensions were then used in other analyses to represent the intended perception more reliably and parsimoniously than a set of individual response items.

A substantial consideration for conducting an EFA is the adequacy of the sample size. The general rule is to have a ratio of 10:1 of respondents to items (Costello & Osborne, 2005). But that ratio is often ignored in social science research. As Costello and Osborne commented, “strict rules regarding sample size for [EFA] have mostly disappeared” (p. 4). Some factor analyses can operate with a respondent to item ratio as low as 2:1, but these must have a solid foundation in the extant literature on a subject (Brown & Moore, 2012; Hoyle, 2000). Given Costello and Osborne’s guidelines and the carefully developed connection between the questionnaire items and existing literature (see Table 2), using the pretest sample ($n = 46$) compared to 22 questionnaire items (respondents: item ratio of 2.09:1) is appropriate given these guidelines (rationale for the reduced number of questionnaire items is below).

To investigate other analytical concerns in conducting an EFA, a set of statistical tests were undertaken to test sampling adequacy, determine the uniqueness of the factors, meet the expectations for normality of responses, and calculate the reliability of the latent constructs. First, to demonstrate that the sample size of the current study was adequate for the use of EFA, a Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) accompanied the EFA. If the KMO returns ($x > .5$), then the sample was adequate for the EFA (Yong & Pearce, 2013). Along with the KMO, Bartlett’s test of sphericity was included with the factor analysis to determine if some items were redundant because they were highly related. If the Bartlett test returns a significant

result, then the EFA contains “patterned relationships amongst the variables” (Yong & Pearce, 2013, p. 88) and latent constructs can be extrapolated from the factor analysis. Results of these two tests are displayed in Table 5 with the results of the EFA.

Next, in EFA, only those latent constructs with eigenvalues ($\lambda > 1$) were retained. The results of the EFA were further clarified by orthogonally rotating the loadings with a varimax rotation to “minimize the number of variables that have high loadings on each factor and work to make small loadings even smaller” (Yong & Pierce, 2013, p. 84). Unique factor loadings ($|x| > .5$) to each extracted component were retained. Excluding factor loadings ($|x| < .5$) after orthogonally rotating the loadings determined the uniqueness of the components. All factor loadings can be seen below in Table 5.

The items that comprised each unique factor were then tested with Cronbach’s alpha to determine the inter-item reliability of the factor. This was a necessary step given the relative unreliability of depending only on eigenvalues greater than one to determine the validity of individual item groupings (Costello & Osborne, 2005). The cutoff for an acceptable Cronbach’s alpha is typically ($\alpha > .70$) (Cortina, 1993, Gliem & Gliem, 2003), but George and Mallery (2003) also labeled ($\alpha > .60$) as “Questionable” (p. 231). The relatively small sample sizes of both the pre and posttest respondents gave reason to calculate variables that returned a questionable Cronbach alpha because of the increased possibility of Type I error attributed to the sample size. Questionable alphas may be the result of error and not actual poor inter-item relationships between questionnaire responses.

The new variables, on the same 7-point scale as the items, contained less measurement error due to the acceptable Cronbach alpha reliability scores (Cortina, 1993; Fowler, 2012; Gliem & Gliem, 2003). Descriptive statistics such as mean, standard deviation, skewness, and

kurtosis were then calculated for the new composite scores to confirm that the variables were normally distributed and would not risk inflating Type I error in the inferential analysis. The new variables that were questionably reliable ($.70 > \alpha > .60$) for both the pre and posttest were checked for normality assumptions before being used in any inferential analysis.

Results of the pretest EFA. The pretest questionnaire contained 25 items designed to provide data regarding preservice music teacher perceptions of three high-stakes and three formative dimensions of the edTPA. Descriptive statistics were run on all item responses prior to the EFA. Each questionnaire response item was tested for mean, standard deviation, skewness, and excess kurtosis (in reference to distance away from $X = 3.0$, which indicates a perfectly normal distribution). Questionnaire items that returned excess kurtosis ($|X| > 2$) were dropped from any further analysis. For example, pretest items 2, 3, and 19 all returned high excess kurtosis scores, so they were not included in the pretest EFA or the inferential analyses since the inclusion of non-normal data creates a greater risk of Type I error (Gravetter & Wallnau, 2014, p. 213) and violates one of the criteria for using ordinal data as scale data (Newton & Rudestam, 2013). Full analysis of these three items can be seen in Appendix H.

Results of the EFA, as displayed in Table 5, established six unique factors with only one item being shared between two. The number of factors was stopped at six because factor extraction “should be set...at the number of based on the *a priori* factor structure...and at the numbers above and below the number based on the *a priori* factor structure” (Yong & Pearce, 2013, p. 85). Six factors were appropriate because the questionnaire was intended to have six larger perceptual constructs and the eigenvalues gradually leveled off and became redundant after the sixth component. Each column represents a variable that contains items that had factor loadings ($|x| > .5$) for the unique construct.

Table 5

Eigenvalues and Factor Loadings for Exploratory Factor Analysis with Varimax Rotation of Pretest edTPA Perception Questionnaire (Pretest)

Item	Readiness $\lambda = 7.48$	Format $\lambda = 2.86$	Planning $\lambda = 1.77$	Growth $\lambda = 1.32$	Passing $\lambda = 1.25$	Reflection $\lambda = 1.24$
1			.729			
4	.634		.536			
5			.760			
6	.653					
7						.569
8	.621					
9					.534	
10			.718			
11	.848					
12	.739					
13		.845				
14		.868				
15				.549		
16	.551					
17						.867
18					.781	
20	.702					
21	.526					
22				.696		
23				.803		
24					.677	
25						

Note. Factor loadings $|x| > .5$ are displayed and grouped; Kaiser-Meyer-Olkin Measure of Sampling Adequacy = .705; Bartlett's Test of Sphericity: $\chi^2 = 552.542$, $p < .001$; item 4 (**bold**) loaded onto two factors but was considered part of the format variable. This was done because this item was originally intended to be part of that perceptual dimension (Costello & Osborne, 2005).

Most of the pretest items that were expected to represent similar perceptual variables did load onto similar factors. Each factor was labeled based on what intended item grouping contributed the most to the latent construct it represented. For example, Readiness was labeled as such because four of the seven items that shared that construct were intended to be part of the Readiness perceptual variable (see Table 2 for the intended labels). However, some items

migrated to a different variable than was intended and were considered part of the new construct. A full description of the items that composed each variable is discussed in Chapter 5.

Reliable pretest variables were Readiness ($\alpha = .87$), Format ($\alpha = .88$), Planning, ($\alpha = .71$), and Growth ($\alpha = .68$). Posttest items were grouped based on the same pretest factor loadings. Readiness ($\alpha = .84$), Format ($\alpha = .67$), Planning ($\alpha = .71$), and Reflection ($\alpha = .61$) each returned acceptable Cronbach's alpha values for both the pre and posttest. Reflection returned an acceptable Cronbach alpha ($\alpha = .76$) only for the posttest. Descriptive statistics were calculated for the Reflection posttest perceptual variable, but it was not included in research question four due to its low Cronbach's alpha value on the pretest. Tables 6 and 7 describe items that shared factor loadings and whose item responses composed the new variables.

Table 6

Individual Items for Perceptions of High-Stakes Use of the edTPA

Variable	Questionnaire Text (Item #)	Cronbach
Readiness	I feel ready to teach music because of the edTPA (6)	Pretest $\alpha = .87$ Posttest $\alpha = .85$
	I can connect my edTPA plans to musical standards (8)	
	I feel ready to teach music through preparation of the edTPA portfolio (11)	
	I feel ready to teach music through completion of the edTPA portfolio (12)	
	The goals of the edTPA are consistent with the goals of my music education program (16)	
	The edTPA helps me think like a teacher (20)	
	The edTPA can help me improve as a music teacher (21)	
Format	I understand the edTPA's prompts and rubrics for K-12 Performing Arts (13)	Pretest $\alpha = .88$ Posttest $\alpha = .67$
	I know where to find resources about the edTPA for K-12 Performing Arts (14)	

Table 7

Individual Items for Perceptions of Formative Elements of the edTPA

Dimension	Questionnaire Text (Item #)	Cronbach
Planning	I can accurately describe the effectiveness of my edTPA lesson (1)	
	My music lesson plans for the edTPA are similar to how I have been taught to plan through my university (4)	
	I can adjust a musical lesson during a class to help a struggling student (5)	
	I can plan my music lessons to be adaptable for students with disabilities (10)	
		Pretest $\alpha = .71$ Posttest $\alpha = .71$
Growth	The edTPA is a fair assessment of my music teaching ability (15)	
	The edTPA highlighted my strengths for teaching music (22)	
	The edTPA highlighted my weaknesses for teaching music (23)	
		Pretest $\alpha = .68$ Posttest $\alpha = .61$
Reflection	The reflective practice of the edTPA helps me analyze my music teaching (7)	
	My reflective abilities will be a strong component of my edTPA portfolio (17)	
		Pretest $\alpha = .53$ Posttest $\alpha = .76$

Readiness was the most comprehensive variable; containing four out of the five items from the intended Readiness variable as well three items from other perceptual dimensions. Notably, response items 20, “The edTPA helps me think like a teacher” and 16, “The goals of the edTPA are consistent with the goals of my music education program” shared factor loadings with the other items meant to address readiness through the edTPA. Additionally, Planning included an item from the reflection through the edTPA dimension, showing a latent construct between being able to describe the effectiveness of a lesson and being able to adjust instruction. It should also be noted that item 25, “The edTPA detracted from my overall music student teaching experience,” did not share factor loadings with any of the other items. Item 25 will be considered its own perceptual variable for the rest of this study because of its uniqueness in the pretest EFA.

Variables and analysis for research questions three. This section describes the development of the variables used to investigate the tensions between (Heil & Berg, 2017; Meuwissen & Choppin, 2015) and mixed perceptions of (Okhremtchouk et al., 2009; Robinson, 2015) the high-stakes use and formative elements of the edTPA as represented by the third research question.

Element variables were calculated by averaging the appropriate high-stakes use and formative perceptual variables for either the pre or posttest. For example, the pretest element of the high-stakes use was the average of the pretest Readiness and Format variables. The same two variables from the posttest composed the posttest high-stakes use element score. Similarly, pre and posttest formative element scores were calculated by finding the average of Planning and Growth (pretest) and Planning, Growth, and Reflection (posttest). Finally, scores for item 25, “The edTPA detracted from my overall music student teaching experience,” were used in a separate correlational analysis because they did not load onto any factor in the pretest EFA and because of the value of the statement in addressing the research question.

For individual variables on the pretest, a correlation matrix was calculated with two variables related to the high-stakes use element, two variables related to formative element, and item 25. The same analysis was calculated for the posttest variables, but with Reflection included. The comparative analysis established the strength and direction of any significant relationships, further describing any tensions (Heil & Berg, 2017; Meuwissen & Choppin, 2015) between preservice music teachers’ perceptions of the edTPA’s high-stakes use and formative elements (Table 8).

Table 8

Variables Included in Correlation Analysis for Research Question Three

Perceptual Element	Variable	Cronbach	
		Pretest α	Posttest α
High-Stakes Use	Readiness	.87	.84
	Format	.88	.67
	Passing	.59	.21
Formative	Planning	.71	.71
	Growth	.68	.61
	Reflection	.53	.76

Note: $\alpha < .60$ in **bold** and these variables were not analyzed in the correlation matrices

Variables and analysis for research question four. The fourth research question was concerned with examining how perceptions change over time. To answer this question, gain scores were utilized in order to establish how much perceptual variables changed from the beginning of the semester to after the completion and submission of the edTPA. The gain scores used were the four perceptual variables that had reliable pre and posttest Cronbach's alphas and responses to item 25. The gain scores provided some indication of how preservice music teachers' perceptions of the edTPA changed over the student teaching semester.

Gain score reliability. Gain scores can be problematic due to their tendency to inflate Type I error (Williams & Zimmerman, 1996). However, a gain score can be just as reliable as the pre and posttest data that determine the gain score result. Williams and Zimmerman argued, "the existence of valid difference scores cannot be ruled out by statistical arguments alone" (p. 68). In other words, the reliability of gain scores can be inferred through statistical tests as well as discipline in the use of gain scores. This study will utilize gain scores to describe the ways perceptions change throughout the course of the student teaching semester. No inferential tests will be run on the gain scores. Furthermore, care was taken to ensure that the attrition between

the pre and posttest responses were random and would not be bias by a particular demographic variable (Salim et al., 2007).

Before calculating any gain scores, the pre and posttest variables must operate independent of each other to ensure that responses are not regressing to the mean (Williams & Zimmerman, 1996). Each reliable variable was tested for significant differences between the pre and posttest using a repeated-measures ANOVA. This test was chosen because the single group pretest/posttest design of this study lends itself well to being analyzed using a repeated-measures ANOVA (Gravetter & Walnau, 2014, p. 395). Because of the relatively small sample sizes of the pre and posttest, each ANOVA included a power analysis to determine if the significant difference was the result of actual differences between the pre and posttest and not Type I error. The repeated-measures ANOVAs indicated if the participants' perception of the edTPA (dependent variable) changed over time (independent variable) as a result of completing and submitting the edTPA portfolio during student teaching. Effect sizes were also calculated through this analysis, which showed how much of the variance in the change could be attributed to completing the edTPA during student teaching. The specific variables that were tested were Readiness, Format, Planning, Growth, and item 25.

While demographic information was collected from the participants, there was no precedent in the literature to suggest that independent variables like gender, specialty, or race would yield significant differences in perceptions of the edTPA between participants. For this reason, demographic variables were not included in the inferential analyses.

Summary

The methodology outlined in the chapter is meant to answer the research questions regarding preservice music teachers' perceptions of the edTPA's high-stakes use and formative

elements. This quasi-experimental design collected data from questionnaires filled out by preservice music teachers once at the beginning of the student teaching semester and again after they completed the edTPA. Those responses were analyzed and the next chapter contains the results of that analysis and the context in which to view them.

CHAPTER 4

RESULTS

This chapter contains the results of the data analysis conducted to answer the research questions. The research questions for this study are:

1. What do preservice music teachers perceive about the edTPA's use as a high-stakes assessment?
2. What do preservice music teachers perceive about the formative element of the edTPA that are intended to inform and improve their professional practice?
3. What are the relationships between preservice music teachers' perceptions of high-stakes use and formative elements of the edTPA?
4. How do preservice music teachers' perceptions of the edTPA change between the beginning of the student teaching semester and after they complete the portfolio?

The chapter begins with the descriptive statistics of the individual item responses for the pre and posttests. Then, the results from each research question's data analysis will be described and interpreted.

Normality of Data

Normal distribution was a concern throughout the analysis because sample sizes were still small enough to be threatened by non-normal distributions (Gravetter & Walnau, 2014, p. 180). In order to determine that responses to items were normally distributed, skewness and excess kurtosis scores were included with the descriptive statistics. As a result, decisions were made to remove or retain responses to certain items for further descriptive or inferential analyses. These items and rationales are summarized in Appendix H.

Research Questions One and Two

Results of the descriptive analysis of the individual items and perceptual variables were separated by pre and posttest instead of research question. This was done for three reasons: (1) preservice music teachers responded to the same items in each questionnaire, (2) the same perceptual variables appear in both the pre and posttest, and (3) as a complementary structure to the pre and posttest comparisons in the fourth research question.

Data were collected using a seven-point scale in response to positively worded questionnaire items. Item response means greater than four (“neither agree/disagree,” “somewhat agree,” “agree,” and “strongly agree”) were considered as respondents agreeing with the questionnaire items or perceptual variables. Similarly, response means less than four (“strongly disagree,” “disagree,” and “somewhat disagree”) were considered in disagreement with the items or perceptual variables.

Pretest results of individual response items. On average, the preservice music teachers agreed with 22 out of the 25 items. High pretest ratings suggest that preservice music teachers anticipated that the edTPA would contain the skills and experiences described in the items (see Table 2 for item texts). Individual item scores tend to be prone to measurement error (Fowler, 2012), so discussion of individual response items will be limited. The pretest’s full descriptive statistic results can be seen on Table 9.

Table 9

Descriptive Statistics of Pretest Item Responses

Item	Mean	SD	Skew	Kurt
1	5.16	1.21	-0.31	-0.87
2	5.28	1.24	-1.37	2.56
3	5.83	0.88	-1.30	3.12
4	5.63	1.25	-0.66	-0.18
5	5.78	0.76	-0.57	0.43
6	3.53	1.69	-0.02	-0.98
7	5.43	1.11	-0.44	-0.64
8	5.65	1.12	-1.05	1.51
9	4.11	2.07	-0.23	-1.29
10	5.80	0.86	-0.26	-0.50
11	4.31	1.58	-0.54	-0.22
12	4.37	1.37	-0.55	0.42
13	4.78	1.44	-1.22	0.66
14	5.07	1.87	-0.79	-0.41
15	3.85	1.46	0.14	-0.87
16	4.78	1.47	-0.04	-0.92
17	5.85	1.12	-0.79	0.08
18	3.41	1.31	-0.14	-1.00
19	5.87	1.63	-1.62	2.21
20	4.26	1.45	-0.52	-0.06
21	5.11	1.32	-1.24	1.56
22	4.44	1.24	-1.00	1.39
23	4.61	1.16	0.12	0.11
24	4.56	1.78	-0.17	-1.29
25	4.39	1.58	-0.23	-0.34

Note: $n = 46$

The preservice music teachers generally disagreed with three pretest items 6 ($M = 3.53$), 15 ($M = 3.85$), and 18 ($M = 3.41$). Items 6 and 18 were part of high-stakes use element and item 15 was from the formative element. The text for these items is displayed in Table 10.

Table 10

Pretest Items Statements to Which Respondents Generally Disagreed

Item	Questionnaire Text
6	I feel ready to teach music because of the edTPA.
15	The edTPA is a fair assessment of my music teaching ability.
18	The score I earn on the edTPA reflects my abilities as a teacher.

The generally low scores for these three items could be due to preconceived negative notions held by the preservice music teachers about the edTPA. The rhetoric surrounding the edTPA is divisive and has likely been communicated to the preservice music teachers by the time they begin the student teaching semester through either university personnel (Cronenberg et al., 2016; McKibbin, 2016), other preservice teachers (Heil & Berg, 2016; Meuwissen & Choppin, 2015), or their cooperating teachers (Behney, 2016; Petchauer, Bowe, & Wilson, 2018). Furthermore, the concept of readiness (Parkes & Powell, 2015; SCALE, 2015) described in item 6 may have been vague at this point in the semester because preservice teachers may not feel very “ready” to teach this early into student teaching (Campbell et al., 2016).

Pretest variable results. As reported in the previous chapter, results of an exploratory factor analysis produced six variables. Four pretest variables returned an acceptable alpha level of $\alpha > .60$ (George & Mallery, 2003). Averages of the individual items scores created composite scores in order increase reliability in the variables (Costello & Osborne, 2005; Fowler, 2012). The table of pretest variables and their descriptive statistics can be seen in Table 11.

The four reliable pretest variables were *Readiness to Teach through the edTPA* (Readiness), *Familiarity with the edTPA’s Format* (Format), *Instructional Planning and Adjustment Decisions Through the edTPA* (Planning), and *Professional Growth Through the edTPA* (Growth). For reasons explained in the previous chapter, Readiness and Format were considered part of the edTPA’s high-stakes use element. Planning and Growth were considered part of the edTPA’s formative element.

Table 11

Pretest Variable Descriptive Statistics Organized by edTPA Perceptual Element

Element	Variable	Items	Cronbach	Mean	SD	Skew	Kurt
<u>High-Stakes</u>							
	Readiness	6, 8, 11, 12, 16, 20, 21	$\alpha = .87$	4.58	1.07	-0.34	-0.27
	Format	13, 14,	$\alpha = .88$	4.92	1.58	-1.02	0.16
	Passing	9, 18, 24	$\alpha = .59$	-	-	-	-
<u>Formative</u>							
	Planning	1, 4, 5, 10	$\alpha = .71$	5.60	0.75	-0.40	-0.88
	Growth	15, 22, 23	$\alpha = .68$	6.33	1.00	-0.31	0.00
	Reflection	7, 17	$\alpha = .53$	-	-	-	-

Pretest readiness to teach through the edTPA. Preservice music teachers' most comprehensive perception of the edTPA—that is, the latent construct with the most common items revealed in the EFA—was being ready to teach through its completion. Scores represented the average of items 6, 8, 11, 12, 16, 20, and 21, which all loaded onto the same factor in the EFA. The Readiness variable included items intended to be related to high-stakes use (6, 8, 11, 12, 16) as well as formative (20, 21) elements of the edTPA.

At the beginning of student teaching, preservice music teachers generally anticipated that the edTPA would make them feel ready through completing the portfolio ($M = 4.58$, $SD = 1.07$). The close to normal distribution (Skew = -0.34, Kurt = -0.27) contained a range of scores of 4.57 (high score 6.43 – low score 1.86). This range of scores suggests that individual preservice music teachers bring a large variety of preconceived notions about the edTPA's ability to represent readiness to teach early in the student teaching semester. This gave further support to the influence of TEP personnel (McKibbin, 2016; Olson & Rao, 2017), other preservice teachers (Heil & Berg, 2016; Meuwissen & Choppin, 2015), or cooperating teachers (Behney, 2016; Petchauer et al., 2018) on how preservice music teachers anticipate the edTPA being able to represent their own readiness to teach.

Pretest familiarity with the format of the edTPA. The respondents tended to somewhat agree ($M = 4.92$, $SD = 1.59$) that they understood the edTPA's rubrics and knew where to find resources early in the student teaching semester. This general agreement aligns with the conclusions of Olson and Rao (2017), which found that many teacher education programs in Illinois have been incorporating materials related to the edTPA into their curriculums as well as supplying supplemental edTPA materials for their preservice teachers.

Pretest instructional planning and adjustment through the edTPA. This variable is comprised of items related to instructional planning and adjustment. Among pretest variables, the average scores were the highest and the variability was the lowest ($M = 5.60$, $SD = 0.75$). Preservice music teachers tended to anticipate that they would be expected to plan effective music lessons and deviate from their plans in the classroom when necessary through the edTPA.

Pretest growth through the edTPA. This variable represents whether preservice music teachers perceived the edTPA as a tool for professional growth. The preservice music teachers' pretest perceptions of growth were somewhat positive ($M = 4.29$, $SD = 1.00$), suggesting that they anticipated that the edTPA would be a fair assessment of their strengths and weaknesses in music teaching.

Summary of pretest variables. Pretest responses were generally positive, which implies that the preservice music teachers anticipated that the edTPA would be helpful in their teaching development as well as represent their readiness to teach. The generally positive perceptions could be an indication of TEPs in Illinois "buying in" (Olson & Rao, 2017) to the edTPA during the pilot and rollout phases of the policy implementation.

Posttest results of individual items. Overall, posttest perception scores were more extreme and varied than the pretest with six individual items having somewhat negatively

perceived, more skewed responses, and generally higher standard deviations. Descriptive results of the posttest questionnaire are displayed in Table 12.

Table 12

Descriptive Statistics of Posttest Item Responses

Item	Mean	SD	Skew	Kurt
1	5.71	0.77	0.10	-0.50
2	5.77	0.84	-1.31	3.10
3	6.00	0.86	-1.36	3.79
4	5.62	1.38	-1.91	4.17
5	6.03	1.19	-2.84	10.90
6	3.03	1.80	0.37	-1.12
7	5.09	1.40	-1.46	2.01
8	6.00	0.93	-1.32	2.64
9	4.59	1.88	-0.42	-0.93
10	6.00	0.82	-0.79	0.71
11	3.84	1.67	-0.40	-0.86
12	3.90	1.18	-0.35	-0.89
13	5.59	1.26	-1.70	4.69
14	5.91	0.96	-1.19	1.79
15	3.12	1.45	-0.10	-1.28
16	4.50	1.54	-0.36	-0.68
17	5.22	1.41	-1.00	1.19
18	3.00	1.52	0.12	-1.05
19	6.09	1.38	-2.24	5.59
20	3.69	1.82	0.02	-1.17
21	4.25	1.66	-0.56	-0.39
22	4.32	1.53	-0.52	-0.94
23	4.12	1.50	0.08	-0.14
24	3.42	1.94	-0.14	-1.38
25	5.58	1.61	-1.10	0.33

Note: $n = 32$.

Low responses to items 6, 11, 12, 15, 18, and 20 indicated that preservice music teachers tended to disagree with these items after they completed and submitted the edTPA. This was expected for items 6, 15, and 18, which were all evaluative statements about the edTPA and had low means on the pretest. But the preservice music teachers tended to agree with items 11, 12,

and 20 on the pretest, but generally disagreed with them on the posttest. The texts for those three items were:

Table 13

Items Negatively Perceived Only at Posttest

Item	Questionnaire Text
11	I feel ready to teach music through preparation of the edTPA portfolio.
12	I feel ready to teach music through completion of the edTPA portfolio.
20	The edTPA helps me think like a music teacher.

These three items were part of Readiness variable, which indicates that preservice music teachers did not necessarily perceive the edTPA as contributing to their own sense of readiness to teach after they prepared and submitted their portfolio. The change in perception is central to and supports the importance of research question four, which will be answered later in this chapter.

Posttest variable results. Results from the individual posttest variables were organized based on the results of the pretest EFA. The inter-item reliability of each posttest variable was determined via Cronbach's alpha. Posttest variables representing Readiness, Format, Planning, and Growth returned strong inter-item reliability. Interestingly, the Reflection variable was reliable on the posttest, but not the pretest. Reflection was only used in posttest data analyses. The descriptive statistic results for the posttest variables can be seen in Table 14.

Table 14

Posttest Variable Descriptive Statistics Organized by edTPA Perceptual Element

Element	Variable	Items	Cronbach	Mean	SD	Skew	Kurt
<u>High-Stakes</u>							
	Readiness	6, 8, 11, 12, 16, 20, 21	$\alpha = .85$	4.17	1.19	-0.42	-0.24
	Format	13, 14	$\alpha = .67$	5.75	0.97	-1.82	6.06
	Passing	9, 18, 24	$\alpha = .21$	-	-	-	-
<u>Formative</u>							
	Planning	1, 4, 5, 10	$\alpha = .71$	5.85	0.79	-1.28	2.78
	Growth	15, 22, 23	$\alpha = .61$	3.85	1.11	-0.79	0.05
	Reflection	7, 17	$\alpha = .76$	5.16	1.26	-1.27	2.50

Posttest readiness to teach through the edTPA. Similar to the pretest results, the preservice teachers tended to slightly agree that the edTPA helped them feel ready to teach ($M = 4.17$, $SD = 1.19$). However, the posttest mean was about half a point lower than the pretest mean, indicating that the Readiness variable score decreased slightly after preservice music teachers completed the assessment. A more thorough analysis later in this chapter will determine whether this change was the result of completing the edTPA or statistical error that could be attributed to respondent attrition. Regardless of whether the change was statistically significant, it should be noted that preservice music teachers' perceptions of their readiness through the edTPA was close to neutral after completing the assessment.

Posttest instructional planning and adjustment through the edTPA. Preservice music teachers generally agreed with the Planning variable on the posttest ($M = 5.85$, $SD = 0.79$). Posttest Planning was slightly higher than the pretest variable, indicating that preservice music teachers' perception of instructional planning and assessment increased after completing the assessment. It is unclear as to if the edTPA contributed to this change or if the daily demands of student teaching contributed to perceived abilities to plan and adjust instruction.

Posttest professional growth through the edTPA. The posttest Growth mean score fell below four, indicating that preservice music teacher generally disagreed that their professional growth could be fostered through the edTPA after completing it ($M = 3.85$, $SD = 1.11$). This low score suggests that preservice music teachers did not view the formative exercises meant to highlight strengths and weaknesses in music teaching as fair or helpful once the portfolio was complete and submitted.

Posttest reflection through the edTPA. Preservice music teachers somewhat agreed with the Reflection variable on the posttest ($M = 5.16$, $SD = 1.26$). Interestingly, the respondents agreed that the edTPA could contribute to their reflective abilities, but also disagreed that the edTPA contributed to their professional growth. It is unclear as to why Reflection was valid in the posttest but not the pretest.

Summary of posttest variables. Five variables reliably represented preservice music teachers' perceptions of the high-stakes use and formative elements of the edTPA. Analysis of the posttest questionnaire responses defined and measured two high-stakes use and three formative variables for later analysis. The means to item responses and perceptual variables tended to be slightly in agreement except for Growth, which was the only variable with a mean lower than four on either the pre or posttest.

Means for Readiness and Growth were both low compared to the other variables, indicating that the participants tended to be ambivalent about the edTPA contributing to their feelings of readiness to teach and disagree with the notion that the edTPA contributed to their professional growth. Those perceptions were present despite participants also agreeing that the edTPA contributed to their abilities to plan and adjust instruction as well as reflect on their teaching experience. This contradiction between those perceptions could indicate that the

preservice music teachers were more comfortable with some formative tasks of the edTPA over others or that using formative tasks for high-stakes purposes obfuscates the possible benefits of the formative exercises.

Research Question Three

The third research question focused on the relationships and tensions between preservice music teachers' perceptions of the edTPA's high-stakes use and formative elements. Using a portfolio assessment as a high-stakes assessment can theoretically create mixed and conflicting perceptions for the preservice teachers who must complete these tests for licensure purposes (Meuwissen & Choppin, 2015; Okhremtchouk et al., 2009; Robinson, 2015).

Relationships between the high-stakes use and formative tasks of the edTPA (pretest). Pretest high-stakes use and formative element scores were positively and moderately correlated ($r = .65, p < .01$). This suggests that the preservice music teachers who felt confident about the high-stakes use of the edTPA also saw its formative potential (or vice versa). Strength of the relationship represented what Meuwissen and Choppin (2015) considered a *productive* tension between the edTPA's high-stakes use and formative elements.

This finding may be evidence of “productive tensions as situations in which teachers are able to learn from challenging or adverse conditions, given opportunities to grapple with, adapt to, and strengthen their practice” (Meuwissen & Choppin, 2015, p. 19). In other words, preservice teachers who understood the high-stakes purpose of the edTPA may also understand how it can be used to improve their teaching. It is possible that the preservice music teachers that perceived the edTPA's potential to act as a formative exercise also understood its place as a high-stakes measure of teaching readiness. Conversely, if a preservice music teacher did not agree that the edTPA could help them improve their teaching practice, they also may not have

viewed it as a legitimate high-stakes measurement of their teaching readiness prior to completing it.

Relationships between high-stakes use and formative variables (pretest). Correlations were calculated between the two pretest and two posttest variables. As can be seen in Table 15, significant positive, albeit moderately weak correlations existed among the four pretest variables.

Table 15

Correlations Between Preservice Music Teachers' Pretest Perception Scores

Formative	High Takes Use	
	Readiness	Format
Planning	.38**	.51**
Growth	.66**	.32*

*Note: * $p < .05$; ** $p < .01$*

Pretest Readiness was significantly and positively correlated with Planning ($r = .38, p < .01$) and Growth ($r = .66, p < .01$). These positive relationships suggest that the preservice music teachers who agreed that the edTPA was a representation of their readiness to teach also felt that the edTPA was a measure of their ability to plan and adjust music instruction. They also anticipated that the edTPA could contribute to their professional teaching growth.

The correlation between Format and Planning scores was positive and moderately strong ($r = .51, p < .01$), suggesting that, prior to completing the edTPA, preservice music teachers who perceived the edTPA's instructional planning and adjustment tasks positively were also confident about being able to navigate the edTPA's rubrics and/or knew where to locate resources to help with those aspects.

Relationships among edTPA as a detractor and other perceptions (pretest). Two significant and negative relationships were observed between perceptual variables and item 25, "The edTPA detracted from my overall music student teaching semester." Pretest Growth and

item 25 were negatively related ($r = -.30, p < .01$). Although this negative correlation was relatively weak, these results might suggest that the more a preservice music teacher perceived the edTPA as a detraction from their overall music student teaching experience, the less they viewed it as an opportunity for professional growth, but more information is needed due to the moderately weak relationship.

A negative and moderately strong relationship was observed between Readiness and detracting from the overall student teaching experience ($r = -.57, p < .01$), suggesting that the more a preservice music teacher viewed the edTPA as a task that would detract from their overall music student teaching experience, the less they thought they would feel ready through completing the assessment. This finding indicates that feelings of readiness are related to how much the participants anticipated the edTPA being burdensome to the point that it takes away from what they hope to learn during their student teaching semester. This finding aligns with Cronenberg et al. (2016), McKibbin (2015), and Meuwissen and Choppin (2015), which all observed patterns in preservice teachers' abilities to handle the extensive work associated with completing the edTPA portfolio and connected those abilities to how they navigated the tensions between the edTPA and other aspects of the student teaching semester.

Relationships between the high-stakes use and formative tasks of the edTPA (posttest). Similar to the pretest, posttest high-stakes use and formative element scores were positive and moderately strongly related ($r = .65, p < .01$). The relationship between perceptions of the high-stakes use and formative elements remained relatively unchanged between the pre and posttest. The way the preservice music teachers perceived the relationship between high-stakes use and formative elements of the edTPA at the beginning of the semester could also be the way they view the relationship after completing it. This consistency means that viewing the

edTPA as a formative exercise within the high-stakes use early in the semester may help preservice music teachers see the extensive work of the edTPA as a productive tension (Meuwissen & Choppin, 2015) instead of cumbersome and arbitrary exercises meant to act as a barrier to their ability to obtain licensure (Greenblatt, 2015) after completing it.

Relationships between high-stakes use and formative scores (posttest). Correlations were calculated between the reliable posttest variables. Readiness and Format were compared with Planning, Growth, and Reflection. As can be seen in Table 16, there were only significant relationships between Readiness and the three formative variables.

Table 16

Correlations Between Preservice Music Teachers' Posttest Perception Scores

	High Takes Use	
	Readiness	Format
Formative		
Planning	.37**	.02
Growth	.70**	.26
Reflection	.67**	.34

*Note: * $p < .05$; ** $p < .01$*

The strongest relationships were observed between Readiness and Growth ($r = .70, p < .01$) and Readiness and Reflection ($r = .67, p < .01$). The relationship between perceived readiness and professional growth through the edTPA suggest that the preservice music teachers' perceptions of their readiness were moderately strongly related to how they also perceived the use of reflective practice and opportunities for growth after completing the edTPA.

Relationships among edTPA as a detraction and other perceptions. The preservice music teachers' perceptions of whether the edTPA detracted from their student teaching experience were negatively and moderately correlated with their perceptions of how edTPA represented their readiness to teach ($r = -.46, p < .05$), helped them grow as professionals ($r = -$

.48, $p < .01$), and contributed to their reflective practice ($r = -.37, p < .05$). In other words, the more the respondents felt that the edTPA detracted from their overall music student teaching experience, the less they agreed with the other variables.

These relationships were consistent with the literature that suggested if preservice teachers were overwhelmed by the additional work required by teacher portfolio assessments, then the additional stress can work counter to the formative goals of portfolio assessments (Cronenberg et al., 2016; McKibbin, 2015; Meuwissen & Choppin, 2015; Okhremtchouk et al., 2009). Though weak, the negative relationships between these perceptions indicate that easing the anxiety attributed to the extensive work associated with completing a portfolio assessment and the expectations of student teaching could help preservice teachers perceive more of a formative function of the portfolio process instead of an arbitrary, obligatory, and high-stakes licensure requirement that detracts from student teaching.

Research Question Four

Research question four was concerned with how preservice music teachers' perceptions of the high-stakes use and formative elements changed over the course of the student teaching semester. Additionally, to more fully answer research question four, changes in responses to item 25 were also analyzed to ascertain potential changes in students' holistic view of the edTPA process.

The changes in perceptions were determined by calculating gain scores for perceptual variables once the pre and posttest scores were confirmed to be independent (Williams & Zimmerman, 1996). Repeated-measures ANOVAs were calculated for the pre and posttest variables of Readiness, Format, Planning, Growth, and whether the edTPA detracted from their overall music student teaching experience. Significant differences between the pre and posttest

were found for all variables except Planning. For the variables that had significant differences between pre and posttest, the changes in their means were the result of the time between anticipating and completing the edTPA during student teaching and not due to Type I error. Thus, whatever change in perception occurred could be attributed to completing the edTPA during the student teaching semester.

Gain scores were calculated for each significant variable and were analyzed using descriptive statistics. Mean, standard deviation, skewness, and excess kurtosis were all calculated for the respondents' perceptual gain scores. The descriptive statistics can be seen on Table 17.

Table 17

Descriptive Statistics of Gain Scores

Variable	Items	Mean	SD	Skew	Kurt
Readiness	6, 8, 11, 12, 16, 20, 21	-0.57	1.10	-0.31	-0.86
Format	13, 14	0.67	1.06	-0.79	2.10
Growth	15, 22, 25	-.58	1.03	-1.16	0.81
Detracting from Student Teaching	25	1.10	1.70	0.14	0.14

Significant changes between pre and posttest perceptions of readiness. On average, Readiness decreased by about half a point between the pre and posttest. The repeated-measures ANOVA, $F(1, 32) = 8.86, p = .006, \eta^2 = .22$, observed power = .82, demonstrated that the change in preservice music teachers' perceptions of readiness through the edTPA can be attributed to the time between the beginning of student teaching and the time after completing the edTPA.

Interestingly, only about a fifth of the variance in the change in Readiness can be attributed to completing the edTPA during student teaching. In other words, approximately 80% of the change in perceptions of readiness is unrelated to completing the edTPA. This lack explainable change suggests that other factors such as preservice music teachers' preconceived opinions about the edTPA have greater effects on their perceptions of the edTPA than actually

completing it. Similar to the findings from research question 3, the act of completing the edTPA seems to have little bearing on the preservice music teachers' perceptions of their own readiness to teach through completing it.

Significant changes between pre and posttest familiarity with the edTPA's format.

Changes in Format increased, on average, by about three quarters of a point between the pre and posttest. The repeated-measures ANOVA, $F(1, 32) = 12.68, p = .001, \eta^2 = .29$, observed power = .93, demonstrated that the average increase score ($M = 0.67, SD = 1.07$) for preservice music teachers' perceptions of the edTPA's rubrics and resources can be credited to completing the edTPA. The effect size suggests that slightly under a third of the variance in the change of Format could be attributed to completing the assessment. In other words, completing the edTPA during the student teaching semester only affected the possible range of the change a small amount. Similar to the results in the change in perceptions of Readiness, completing the edTPA contributed unsubsantially to how perceptions about the edTPA's format changed.

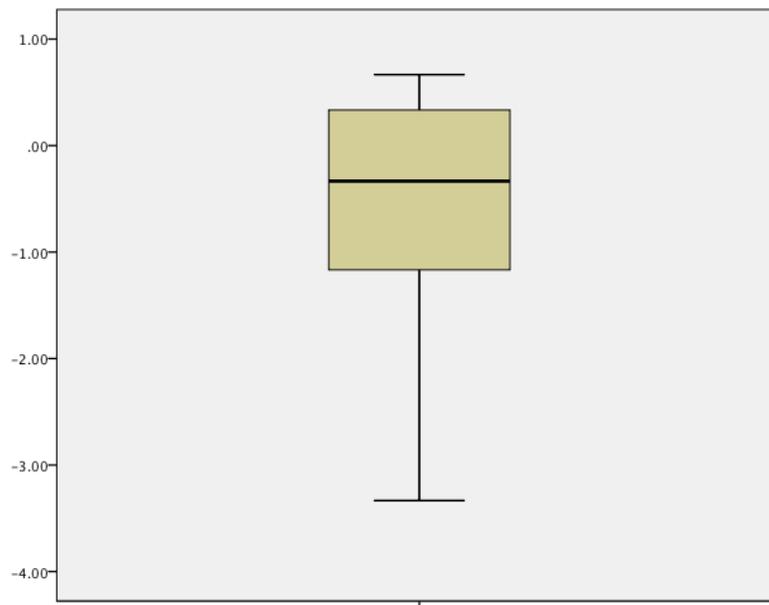
Significant changes between pre and posttest perceptions of professional growth through the edTPA. On average, Growth decreased by over half a point between the pre and posttest ($M = -0.58, SD = 1.03$). The repeated-measures ANOVA, $F(1, 32) = 10.19, p = .003, \eta^2 = .25$, observed power = .87, demonstrated that the change in preservice music teachers' perceptions of the edTPA contributing to their professional growth could be the result of completing the portfolio during student teaching. The small effect size indicates that a quarter of the variance in Growth change could be explained by the time between the beginning of student teaching and after completing the assessment. Similar to perceptions of readiness through the edTPA and familiarity with the edTPA's format, the experience of completing the edTPA during

student teaching had little impact on how preservice music teachers perceived its contribution to their professional growth.

The decrease in perception indicates that the edTPA did not fulfill the expectations the preservice music teachers had at the beginning of the semester. However, the high standard deviation in the perceptual change and low effect size means that factors aside from completing the edTPA contribute substantially to how the preservice music teachers' perceptions of Growth changed over the semester.

This high variability in Growth gave reason to examine the confidence interval of the mean posttest scores. The likely range of posttest Growth was, $p < .001$, 95% CI [3.45, 4.25], indicating that, although the mean dropped on average by a little over half a point, preservice music teachers were likely to disagree with the Growth variable after completing the edTPA. This finding is of interest because the edTPA is designed to help preservice teachers develop formative skills meant to foster professional growth through its tasks (Sato, 2014; SCALE, 2015), but the disagreement present in their posttest perceptions suggests that completing the edTPA matters little in how they perceive its formative capabilities. Rather, unless the preservice music teachers viewed the edTPA as an opportunity to develop teaching skills at the beginning of student teaching, then they would not view the edTPA as a fair assessment of their teaching strengths and weaknesses after completing it. Variability in Growth can be seen as a boxplot in Figure 2.

Figure 2. Boxplot of Growth Gain Score. Variance in the gain score shows that the change in Growth could be anywhere from the drop of over a point to a slight increase, with the perceptual variable score more likely dropping. Low scoring outliers also contributed to the large amount of variation.

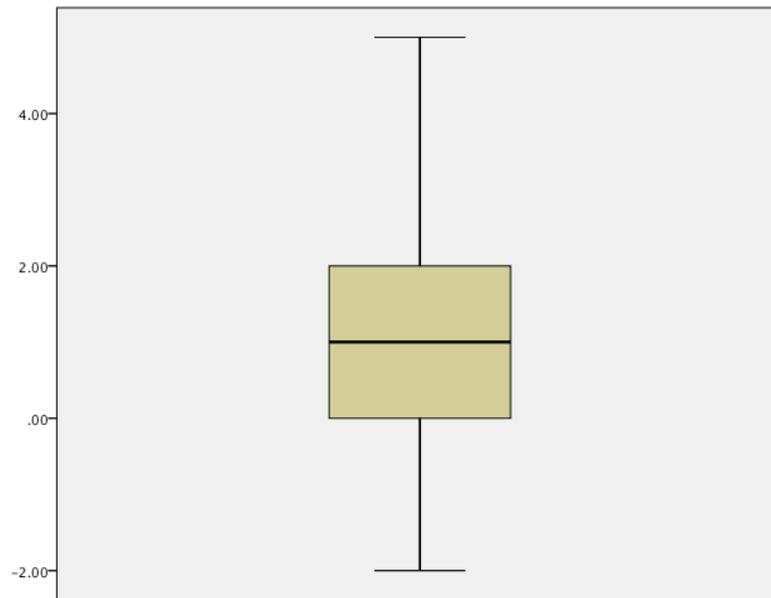


Significant changes between pre and posttest perceptions of the edTPA detracting from student teaching. Item 25 had the most substantial change in mean score among the variables tested for changes. Change in agreement with whether edTPA detracted from the overall student teaching experience increased by slightly over one point ($M = 1.10$, $SD = 1.70$). But, given that this perception was measured on a seven-point scale, the standard deviation was extremely high. The increase and variability in the item 25 score indicates that the preservice music teachers believed that the edTPA detracted from their student teaching experience more strongly after completing it, but the volatility the change of opinion suggests that there was little uniformity in the perception change despite the shared experience of completing the edTPA portfolio.

This volatility in the change was further illustrated by the repeated-measures ANOVA, $F(1, 32) = 12.90, p = .001, \eta^2 = .30$, observed power = .93. The effect size suggests that slightly under a third of the variance in the perceptual change was explained by completing the edTPA during student teaching. Similar to the other perceptions, the experience of completing the edTPA contributed unsubstantially to the changes in the preservice music teachers' opinions about the edTPA. This lack of effect indicates that the shared experience of completing the edTPA did not substantially affect whether a preservice music teacher felt that completing the portfolio detracted from their student teaching experience. Moreover, separate factors aside from the edTPA itself like cooperating teacher knowledge about the edTPA (Behney, 2016; Petchauer, Bowe, & Wilson, 2018), enthusiasm from teacher education program personnel (Cronenberg et al., 2016; Greenblatt, 2015; Olson & Rao, 2017), or the opinions of other preservice teachers (Heil & Berg, 2017; Meuwissen & Choppin, 2015) could have greatly contributed to the change.

Additionally, the high variability in change prompted the examination of the confidence interval of the mean responses for the posttest. The possible posttest item score response was, $p < .001$, 95% CI [4.99, 6.17], indicating that the preservice music teachers were likely to agree or strongly agree that the edTPA detracted from their overall music student teaching experience after completing it. Only the preservice music teachers who disagreed or strongly disagreed with this item on the pretest could have possibly disagreed with it on the posttest, but those responses were rare. However, due to the low effect size described earlier, the change in perception has little to do with the edTPA itself. Whether the preservice music teacher felt that the edTPA detracted from their music student teaching experience after completing it was more dependent on their opinion at the beginning of the semester and extraneous factors than completing the assessment. Variability in the item 25 gain score is displayed in the boxplot in Figure 3.

Figure 3. Boxplot of Item 25 Gain Score. Variance in the gain score shows that the change in opinion regarding the edTPA detracting from the overall music student teaching experience could be anywhere from no change to an increase of two points. High and low scoring outliers also contributed to the large amount of variation.



Results Conclusion

Results of the analysis indicated the preservice music teachers' perceptions of the edTPA's high-stakes use and formative elements were varied, mixed, and somewhat contradictory. Relationships between variables suggested that perceptions of the formative element are strongly linked to the high-stakes use of the assessment both before and after completing the edTPA. Furthermore, changes in perceptions were unsubstantially affected by the time between the beginning of student teaching and submitting the edTPA. This lack of explainable change suggests that the edTPA contributes little to how perceptions of the high-stakes use and formative elements change over the course of the student teaching semester. The next chapter will be a full discussion of these results along with the implications of these findings.

CHAPTER 5

SUMMARY AND DISCUSSION

The purpose of this study was to investigate preservice music teachers' perceptions of the high-stakes use and formative elements of the edTPA. Four research questions guided this research:

1. What do preservice music teachers perceive about the edTPA's use as a high-stakes assessment?
2. What do preservice music teachers perceive about the formative element of the edTPA that are intended to inform and improve their professional practice?
3. What are the relationships between preservice music teachers' perceptions of high-stakes use and formative elements of the edTPA?
4. How do preservice music teachers' perceptions of the edTPA change between the beginning of the student teaching semester and after they complete the portfolio?

The first two parts of the framework for understanding teacher licensure policy in the age of accountability by Cochran-Smith, Piazza, and Power (2013) were used as the theoretical background of the current study. Neoconservative policies in the 1980s turned discussions regarding teacher education towards standards and accountability, which eventually led to the implementation of the edTPA as a high-stakes licensure measure meant to standardize teacher education and serve as a measure of teacher readiness (Cochran-Smith et al., 2013; Sato, 2015). Applying the edTPA to music education adds complexity due to the discipline-specific nature of music teaching practice and accountability in music teaching practice (Barrett, 2012; Vaughan-Marra & Marra, 2017). To be able to address the third part of the framework by Cochran-Smith

et al. (2013), policy in practice, in music education, the current study required deliberate and careful questions to begin tackling this wicked problem (Barrett, 2012).

Due to the newness of edTPA policy, research is limited to empirical work located primarily in general education. Studies examining stakeholder perceptions of teacher portfolio assessments as high-stakes licensure measures are relatively common in general education literature (Greenblatt, 2015; Lin, 2015; McKibbin, 2015; Meuwissen & Choppin, 2015; Meuwissen et al., 2015; Okhremtchouk et al., 2009), but there has been no such study focusing on how preservice music teachers view the edTPA as a high-stakes assessment. Because the edTPA was created for general education teachers and then applied to music education (Vaughan-Marra & Marra, 2017), it is possible that preservice music teachers do not perceive the edTPA as a series of formative tasks encased within a high-stakes licensure assessment (Myers, 2016; Parkes & Powell, 2015). Moreover, Robinson (2015) suggested that using a formative exercise such as a teacher portfolio assessment as a high-stakes mechanism would result in confusing and conflicting perceptions from the individuals completing the portfolio. These concerns, as well as the way perceptions of the edTPA may change between the beginning of the semester and after completing the edTPA (Campbell et al., 2016), were the basis for the research questions.

This study used a questionnaire completed by preservice music teachers at the beginning of the student teaching semester and again just after they completed the edTPA portfolio. Two administrations of the questionnaire were integral to the study's quasi-experimental one-group within-participants pretest-posttest design (Shadish, Cook, & Campbell, 2002, pp. 108-113). The pretest-posttest design allowed preservice music teachers to both anticipate and recall the

strength of their perceptions about the high-stakes use and formative elements purportedly represented by the edTPA.

Fifty-nine preservice music teachers could have been recruited as a convenience sample from five teacher education programs in Illinois whose student teaching coordinators agreed to distribute the pretest to all members of their respective Spring 2018 student teacher cohort. Of the 59 possible respondents from this voluntary sampling frame, 46 completed the pretest questionnaire and 32 completed the posttest. The online questionnaire contained 25 statement items representing perceptions of the edTPA to which respondents indicated their level of agreement using a seven-point Likert scale that ranged from “strongly disagree” to “strongly agree.”

Results of the analyses of the preservice music teacher responses appear in Chapter 4 and were organized by research question, just as is the following summary. Broader implications of the findings and recommendations for future research will be discussed before the conclusion is offered.

Perceptions of the edTPA’s High-Stakes Use (Research Question 1)

Preservice music teachers in Illinois must complete and pass the edTPA as a representation of their readiness to teach in order to obtain licensure. Music teacher educators have questioned this high-stakes use of the edTPA (Myers, 2016; Parkes & Powell, 2015). The questionnaire used in this study asked preservice music teachers about three dimensions within the high-stakes element of the edTPA completion experience: readiness through the edTPA (Readiness), confidence in the edTPA’s format (Format), and confidence about passing the edTPA (Passing). Two of these dimensions, Readiness and Format, were confirmed through the

use of an exploratory factor analysis. Responses regarding Passing were determined not to be reliable enough for analysis.

Readiness through the edTPA. Readiness scores indicated preservice music teachers' sense of readiness to teach music through the edTPA. The Readiness dimension also contained items addressing how preservice music teachers perceived connecting music lessons to standards, complying with the lesson planning expectations of their teacher education programs, and thinking like a teacher. Readiness defined from the results of the study included student teachers' perceptions of being able to plan lessons, to instruct, and to assess their students' learning.

This group of preservice music teachers perceived themselves to be somewhat ready to teach music through completing the edTPA portfolio. However, the extent of this readiness actually perceived by preservice music teachers through completing the edTPA was weak, and the average respondent was ambivalent about feeling ready to teach through completing the edTPA.

Readiness was perceived more positively on the pretest than on the posttest. Results indicated that achieving readiness through the process of completing the edTPA was not necessarily realized through actually completing the assessment. The reason (or reasons) for this slight pretest-posttest change may have involved cooperating teacher understanding of the edTPA (Behney, 2016; Petchauer, Bowe, & Wilson, 2018), support from the TEP (Cronenberg et al., 2016; Greenblatt, 2016; Lin, 2015; McKibbin, 2016), or error in the statistical model. Nevertheless, preservice music teachers' perceptions of readiness through the edTPA decreased slightly as a result of completing the assessment. This change is the purposeful focus of research question 4 and will be discussed more fully later in this chapter.

The edTPA's rubrics and resources. Preservice music teachers were asked about familiarity with the rubrics and resources available to assist with passing the assessment. At the beginning and end of the student teaching experience, preservice music teachers attested to understanding the edTPA's rubrics and resources, with wide variability within the group. However, general responses were more uniform on the posttest, which indicates that these preservice music teachers' knowledge of the rubrics and resources became more consistent as a group after they had completed the exam. This suggests a benefit to understanding and using the resources available for preparing one's edTPA portfolio.

Passing the edTPA. Three items compiled the dimension referring to the preservice music teachers' confidence related to passing the edTPA. The items read, "I am not worried about passing the edTPA," "The score I earn on the edTPA reflects my abilities as a teacher," and "I am not worried about the administrative elements of the edTPA (i.e. uploading documents, video recording, rules of the assessment)." Responses to three questionnaire items related to passing the edTPA, although loading onto a single factor, did not share enough inter-item reliability on either the pre- or posttest. Therefore, they were not analyzed as were the other high-stakes dimensions. Speculatively, this lack of reliability may have been the result of the distinct ways preservice teachers may approach the stress of high-stakes portfolio assessments (Lin, 2015; Meuwissen & Choppin, 2015; Okhremtchouk et al., 2009).

Perceptions of the Formative Element of the edTPA (Research Question 2)

Teacher portfolio assessments are tools meant to build teaching skills through teaching in an authentic setting and reflecting on the success of the planning and execution of the lessons (Parkes, Dredger, & Hicks, 2013). These assessments have also been used in music teacher education to build reflective skills and spur professional growth through video recording

teaching episodes and discussing teaching practice in detail (Bauer & Nunn, 2003; Powell, 2016; Rawlings, 2016). The salience of planning and executing lessons in authentic settings is among the reasons why performance assessments have increasingly become a regular part of teacher education policy.

In this study, the edTPA's formative element consisted of three dimensions: instructional planning and adjustment (Planning), professional growth (Growth), and realizing the benefits of reflection (Reflection), all of which represented goals of teacher portfolio assessments in general (Parkes, Dredger, & Hicks, 2013). Preservice music teachers perceived all three in the posttest and only two dimensions in the pretest; pretest responses to Reflection were not reliable.

Instructional planning and adjustment. Prior to instructing their lessons for the edTPA, preservice music teachers must describe the teaching setting and students in the class in order to justify their instructional and assessment decisions. Additionally, they must cite educational theories and research to provide evidence to suggest that their teaching will be successful (Sato, 2014; SCALE, 2015). By asking preservice music teachers to analyze their videos and justify their instructional decisions, they are required to “[Work] with the concepts of critical incidents or well-remembered events”, and “think systematically about their practices” (Parkes et al., 2013, pp. 101-102). Questionnaire statements related to systematic reflection included the ability to: describe the effectiveness of the lesson, justify changes made during instruction, and adapt teaching strategies for students with disabilities through the edTPA.

Preservice music teachers generally perceived the tasks of the edTPA as reinforcing systematic ways to plan and justify instructional decisions, regardless of whether they were asked at the beginning or end of their student teaching experiences. The strength and consistency of their perceptions was likely due to the extensive planning portion of the edTPA.

Professional growth through the edTPA. Three items constituted the dimension of professional growth through the edTPA. Two items addressed how preservice teachers can identify their strengths and weaknesses via the edTPA; the other asked the preservice music teachers whether the edTPA was a fair assessment of their teaching ability. Because the third item addressed the fairness of the edTPA, perceptions of growth through the edTPA were defined as viewing an assessment that addressed both deficiencies and strengths in their teaching ability as fair.

This group of preservice music teachers viewed the edTPA as a fair assessment of their particular music teaching strengths and weaknesses. At the beginning of the semester, they anticipated that they would grow professionally through completing the edTPA. This connection could be related to the edTPA's focus on broader standards such as reflection and assessment analysis (Sato, 2015), or how preservice music teachers viewed its adaptability to their specific student teaching setting (Greenblatt, 2016; Meuwissen & Choppin, 2015; Parkes & Powell, 2016).

However, after completing the edTPA, these preservice music teachers no longer agreed that the edTPA was a fair assessment of their strengths and weaknesses as music teachers. The specific change in perception will be discussed later this chapter, but it is worth noting that completing the edTPA possibly had an adverse effect on whether preservice music teachers felt the edTPA contributed to their professional growth.

Benefits of reflective practice. The reflection dimension of the edTPA focused on the connection between reflection through the edTPA and preservice music teachers' analysis of their teaching. Although not the case at the beginning of the semester, by the end of their student teaching experience preservice music teachers indicated that the edTPA's guided reflection tasks

contributed to realizing the benefits of reflective practice. This was consistent with literature in music teacher education that promoted the use of video recorded teacher episodes when teaching self-assessment through reflection (Bauer & Nunn, 2003; Conkling, 2003; Powell, 2016). Bauer and Nunn (2003) suggested that preservice music teachers tend to need assistance in making the connection; so, having preservice music teachers self-assess through reflection abilities through the edTPA might lessen the difficulty in this formative task.

While the lesson planning, lesson execution, and video-reflection components may have been new for some teachers in general education (Choppin & Meuwissen, 2017; Huston, 2016; Lin, 2015), these tasks may have been more familiar to preservice music teachers, who perceived the guided reflection tasks of the edTPA as a helpful to their self-assessment of their music teaching process. However individual perceptions of this dimension varied widely. A possible reason for the differing perceptions to the reflective tasks of the edTPA could be the amount of writing required to complete the edTPA.

Throughout the edTPA portfolio, preservice teachers may use up to 25 single-spaced pages to describe their teaching settings, justify their plans, and generally reflect on their teaching effectiveness. Only nine additional pages are allowed for supplemental materials (SCALE, 2015, pp. 10, 20, 29). Thus, the writing demands of the edTPA present the greatest challenge in the reflective essays that accompany the other artifacts. As was suggested in Goldhaber, Cowan, and Theobald (2016), preservice teachers' general writing skills likely effect how well they performed on the edTPA. Applying this to the current study, the preservice music teachers with weaker abilities in writing may have anticipated and found the reflective writing task as more daunting than those with stronger writing skills.

As demonstrated in the strong and positive perceptions of Reflection on the posttest, the common experience of completing the edTPA possibly explains the lessened variability of the dimension score by offering specific prompts to guide the extensive reflection. For example, the reflective writing for Assessment Task 3 has four prompts accompanied by a total of nine sub-prompts to guide the essay (SCALE, 2015, pp. 29-31). A ten-page reflective essay may have seemed daunting on the surface but having those ten pages broken down into about nine smaller essays could have helped preservice music teachers realize the benefit of reflective writing once they completed the assessment.

Relationships Between the edTPA's High-Stakes Use and Formative Elements (Research Question 3)

The third research question explored the complex relationships between preservice music teachers' perceptions of the edTPA's high-stakes use with its formative elements. Preservice teachers completing portfolio assessments as high-stakes measures have been shown to have contradictory perceptions of the tasks (Coloma 2013; Greenblatt, 2016; Lin, 2015; McKibbin, 2016; Meuwissen et al., 2015; Okhremtchouk et al., 2009). The contradictory perceptions may be due to the inherent conflict of using a formative exercise as a punitive accountability measure (Robinson, 2015). Yet, each positive relationship between elements could represent the productive tensions described in Meuwissen and Choppin (2015), in which the simultaneous presence of strong perceptions of high-stakes use and formative elements work together as an educative experience for the preservice music teacher.

Element relationships as productive tensions. Results indicated that respondents' who possessed confidence in their ability to manage the high-stakes element of the edTPA also tended to agree with beneficial nature of the formative items (or vice-versa). The high-stakes use element of the edTPA represents the adverse conditions and the formative element acts as a way

to strengthen practice. For the preservice music teachers in this study, perceptions of these potentially divergent purposes tended to work together to form a composite experience without a clear distinction between high-stakes use and formative elements. In this way these music educators were similar to their general education counterparts (Meuwissen & Choppin, 2015).

Readiness relationships as a formative benefit. Perceptions of Readiness showed a positive and moderately strong relationship with perceptions of Growth at pretest and posttest. This relationship indicated that the preservice music teachers who perceived readiness through the edTPA were also likely to perceive the edTPA as an opportunity for professional growth and that preservice music teachers who viewed the edTPA as a professional growth opportunity also viewed the edTPA as a representation of their readiness to teach. Interestingly, the high-stakes nature of Readiness worked together with growth, suggesting that not all high-stakes use and formative elements are conflicting in nature, but can work together within the same assessment.

A positive, strong relationship was also found between perceptions of Readiness and the Reflection dimensions on the posttest. Preservice music teacher responses suggested that reflective ability is related to their readiness to teach. This finding was consistent with the literature that suggests that formative exercises such as reflection develops essential skills for successful music teaching (Conkling, 2003; Powell, 2016). Furthermore, this finding supports the notion that the edTPA attempts to guide reflective practice to build deeper understanding of one's own teaching in order to produce more thoughtful teachers at the moment of licensure (Meuwissen & Choppin, 2015; Sato, 2015; Shulman; 2005). The strength of the relationship represents the strength of how the preservice music teachers for the current study perceived the connection between their readiness to teach and their reflective abilities as defined by the edTPA.

A negative, moderate relationship between perceptions of readiness and the edTPA detracting from the overall student teaching experience was observed on both the pre ($r = -.57$) and posttest ($r = -.46$). The stronger a preservice music teacher felt that the edTPA would detract or detracted from their music student teaching experience, the more they did not feel the portfolio represented their readiness to teach. The negative relationship was consistent with how preservice teachers may have perceived the substantial amount of time and energy required to adequately complete a teacher portfolio assessment (Lin, 2015; Meuwissen et al., 2015; Okhremtchouk et al., 2009). If a preservice music teacher believed that the edTPA would be a burdensome bureaucratic requirement at the beginning of the semester (Greenblatt, 2016; McKibbin, 2016), then they likely would not perceive it as being a representation of their own readiness to teach.

edTPA as detracting from music student teaching (item 25). Consistent with the negative relationship with readiness observed above, a negative and moderately weak relationship existed between the perception of the edTPA detracting from the overall music student teaching experience with Growth and Reflection. This indicated that if a preservice music teacher believed that the edTPA detracted heavily from their student teaching experience, the less they perceived its formative dimensions. The possibility that the edTPA could detract from the overall music student teaching experience is reflective of the warnings from music scholars (Myers, 2016; Parkes & Powell, 2015). It should be noted that this relationship is between dimension scores meant to represent preservice music teachers' perceptions, not whether the edTPA's reflective or professional growth dimensions has an actual negative relationship to its ability to represent readiness to teach. However, the negative relationship is worth addressing due to music teacher educators' interests in having preservice music teachers

use the edTPA as an educative tool (Heil & Berg, 2017) and not view it as some obligatory bureaucratic requirement (Greenblatt, 2016; Petchauer, Bowe, & Wilson, 2018).

How Initial Perceptions Change After edTPA Completion (Research Question 4)

Responses to perceptions about the edTPA were tested using repeated-measures ANOVA for significant differences between pre and posttest scores to determine whether perceptions changed over the course of the semester during which these student teachers considered and completed the edTPA. There were no changes in perceptions of Planning over the course of the semester. Gain scores for the other four dimensions are discussed below.

Changes in perception of readiness through the edTPA. The slight decrease in agreement with Readiness items was meaningful, indicating that the act of completing the edTPA affected preservice music teachers' perceptions of their readiness through the assessment. This was consistent with the theory proposed by Parkes and Powell (2016), where the edTPA may not be an adequate measure of preservice music teacher readiness, at least as perceived by the preservice music teachers. It also suggests that preservice music teachers anticipated the feeling of readiness but did not perceive it through completion of the portfolio.

Readiness was malleable. Its change varied across time and little of that variation could be attributed to completing the edTPA during student teaching. Readiness through the edTPA was possibly affected by confounding variables such as TEP enthusiasm (Greenblatt, 2016; McKibbin, 2016; Olson & Rao, 2017), TEP support (Cronenberg et al., 2016; Meuwissen & Choppin, 2015), or cooperating teacher knowledge (Behney, 2016; Petchauer et al., 2018) than the edTPA itself. Without examining those potential factors, the current study's observed change in Readiness can only be interpreted as unsubstantial to conclusions drawn in regard to the research question.

The concerning aspect about the changes in their perceptions of Readiness was that those preservice music teachers who expected to feel ready through the edTPA tended to feel that way after completing it. Conversely those who did not expect to feel ready did not after completing the edTPA. In other words, whatever opinion a preservice music teacher had at the beginning of the semester was likely their opinion after completing the edTPA, confirming whatever opinion they initially had about the edTPA. Although the edTPA contains tasks valued by music education such as reflection (Conkling, 2003; Powell, 2016) and justification for their instructional decisions (Barrett, 2011; Bauer & Nunn, 2003), the usefulness of those tasks was not necessarily perceived by the preservice music teachers through completion of the portfolio. This finding was consistent with concerns expressed by Myers (2016), Parkes and Powell (2015), and Vaughn-Marra and Marra (2017) that the edTPA focuses too heavily on non-music teaching structures and is ineptly applied to music teaching after being written for general education teachers. What the general, but mutable declines in Readiness do illuminate, though, is Barrett's (2011) assertion that evaluation tools meant for measuring music teacher quality need more attention paid to the particularities of music teaching.

Changes in perception of familiarity with the edTPA's format. The significant change in the format dimension was to be expected due to preservice teachers' greater familiarity with available rubrics and resources designed to assist in the completion of the portfolio. The slight increase in their confidence about the test's format suggested that preservice music teachers tended to understand the rubrics and resources necessary to complete the edTPA. Similar to the other perceptual changes, variation in the change was high. This finding was consistent with the descriptions of the experiences of preservice teachers from Greenblatt (2016) and McKibbin (2016), where edTPA support was often inconsistent and dependent on the individual preservice

teacher's ability to find support on their own or the TEP's general preparedness and enthusiasm. Furthermore, TEPs in Illinois have documented curricular changes and support materials to accommodate the demands of the edTPA's format (Olson & Rao, 2017). While the perceptions remained relatively strong, any change in the dimension score as a result of completing the edTPA was too varied to draw any strong conclusion due to potential variation in the dimension caused by potential outside influences.

Changes in perception of professional growth through the edTPA. Similar to changes in Readiness, the preservice music teachers perceived Growth more negatively after completing the edTPA. The edTPA's formative element was meant to help preservice teachers acquire techniques to foster their own professional growth (Sato, 2015). But the slight decrease in perceptions of growth indicated that although the professional growth was anticipated at the beginning of the semester, it was not realized after completing the edTPA. Growth was possibly obfuscated by its relationship with how preservice music teachers perceived their readiness to teach through edTPA. Furthermore, this finding could also affirm a suggestion from Okhremtchouk et al. (2009), that the extensive work involved with completing a portfolio assessment as a high-stakes licensure measure could overshadow the formative elements. It was perhaps difficult for preservice music teachers to isolate their view of the edTPA as an opportunity for professional growth due to its relationship with the high-stakes expectations for being ready to teach through preparing and submitting the portfolio.

The high variability in the perception change indicated that the differences between perceptions of Growth on the pre- and posttest were inconsistent. This variation was confirmed through the range of possible posttest responses. High variability in Growth perception change might have been the result of the edTPA's extensive writing component. Disparity in basic

writing ability has been thought to impact variation in performance on the edTPA (Goldhaber, Cowan, & Theobald, 2016). So, if a preservice music teacher generally struggled with extensive writing tasks prior to being required to complete the edTPA, they might have viewed writing about their lesson planning decisions or describing their instructional effectiveness through reflective essays as an arduous task and not as an exercise meant to foster professional growth. Regardless of the variation in the Growth, it tended to begin and stay toward the middle of the seven-point scale and was perceived slightly negatively on the posttest by preservice music teachers.

Changes in agreement about whether the edTPA detracted from the overall student teaching semester. The preservice music teachers somewhat agreed with the statement that edTPA detracted from the overall student teaching experience at the beginning of the student teaching semester. Upon completing the edTPA, the preservice music teachers generally felt more strongly that it detracted from their overall music student teaching experience than at the outset of their student teaching experience.

The variability of that change in agreement, however, suggested that the change in the preservice music teacher perception of the edTPA as detracting from their overall music student teaching experience differed substantially between preservice music teachers, but still tended to lean towards believing that the edTPA detracted from the student teaching semester. This finding is consistent with theories that the process of completing edTPA could be so different for preservice music teachers that it detracted from their student teaching experience (Myers, 2016; Parkes & Powell, 2015). It was unclear as to what specific tasks of the edTPA were different from the music pedagogical instruction preservice music teachers received prior to student teaching. The planning, video recording, and reflection on instruction tasks of the edTPA were

also common in discussions regarding music teacher education (Bauer & Nunn, 2003; Conkling, 2003; Powell, 2016). It is likely that another task must have contributed to preservice music teachers thinking that the edTPA detracted from their music student teaching experience, and that belief gained in importance over the course of the semester.

Assessment was possibly an edTPA task more unfamiliar to preservice music teachers than others. The edTPA requires preservice teachers to create, document, and analyze student assessment data as part of its requirements. Preservice teachers must also draw connections between their assessment techniques and how they represent student learning, relate their assessment practices to research and theory, and demonstrate how the practices can be adapted for students with exceptionalities (SCALE, 2015, pp. 30-31). Additionally, preservice music teachers must also document assessment modifications and provide written work samples from purposefully selected students (p. 39).

Questionnaire items 2 and 3 addressed preservice music teachers' abilities to assess through the edTPA and both items were not included in any dimension due to normality concerns. Data regarding assessment were not reliable either before or after the preservice teachers completed the edTPA. By not being included in the data for this study, the items addressing assessment leave open the possibility that assessment was possibly a factor in the wide variation in change in perception about whether the edTPA detracted from the overall music student teaching experience.

Depending on how well preservice music teachers were prepared to assess student learning by their TEP, the perceived difficulty of completing the edTPA assessment task might have varied greatly. Additionally, Robinson (2015) suggested that, "many music teachers do not have the time or the measurement expertise to develop their own assessments" (p. 15), so it could

be that preservice music teachers might not have possessed the fundamental assessment skills expected by the edTPA. If cooperating music teachers lacked the expertise or motivation to create music assessments and analyze the data, then it was possible that, in ways similar to those observed in Behney (2016), they could have offered the least amount of support for completing the edTPA's assessment task.

Discussion of the changes. The amount of variation within changes of perception made drawing clear and concise conclusions difficult. While variation in the scores between pre- and posttests should be expected, the extent of the variation deserves attention. Research in general education has suggested that preservice teachers' perceptions of the edTPA have been influenced by cooperating teacher support (Behney, 2016; Petchauer et al., 2018), TEP support (Greenblatt, 2016; McKibbin, 2016; Olson & Rao, 2017), or support from other preservice teachers (Heil & Berg, 2017; Meuwissen & Choppin, 2015). It is very possible if not likely, that these influences, among others not considered in the current study, lay behind the observations that preservice music teacher perceptions changed in a meaningful way between the beginning of student teaching and after completing the edTPA.

Inexactness in the changes of perceptions also suggested that the edTPA might not be as important to preservice music teachers as intended. Because the edTPA was meant to measure readiness and provide frameworks for self-assessment through reflection (Sato, 2015; SCALE, 2015), it could be expected that the individuals completing the portfolio should perceive those aspects. The results here did not support this. In fact, the data suggested that preservice music teachers did not perceive readiness or an opportunity for professional growth through the action of completing and submitting the edTPA.

Implications for Policy and Music Teacher Educators

The edTPA, or a similar teacher portfolio assessment, will likely be part of licensure requirements for the present and foreseeable future. The edTPA has been shown to predict teacher quality in math and reading (Goldhaber, Cowan, & Theobald, 2016) and comparable portfolio assessments have shown similar capabilities (Cavalluzzo, 2004; Darling-Hammond, Newton, & Wei, 2013; Pecheone & Chung, 2006). When compared to the traditional, non-portfolio assessments like the *PRAXIS* II, teacher portfolio assessments have shown better predictive relationships with student test data (Wilson et al., 2014). These studies give reason to believe that teacher portfolio assessments are manifestations of standards and accountability goals sought by policy-makers (Cochran-Smith, Piazza, & Power, 2013).

In contrast, the implementation of policy using edTPA as high-stakes has elicited negative reactions from teacher educators. Critiques have ranged from the edTPA representing unnecessary corporate interests in teacher education (Kozziel, 2018; Olson & Rao, 2017) to concerns that expanded use of the edTPA could dissuade potential candidates of color from entering the teaching profession (Petchauer et al., 2018). Firsthand accounts of the experiences of both preservice teachers and teacher educators have suggested that the extensive work of the edTPA overshadows any potential improvements to teaching practice through the assessment's portfolio format (Cronenberg et al., 2016; Greenblatt, 2015; McKibbin, 2015). From the vantage points of teacher educators, these concerns provide ample theoretical foundation to substantially change or repeal policy that requires the edTPA to be completed and passed in order to obtain licensure.

Nevertheless, it seems unlikely that policy-makers will change their attitudes in light of the stress and frustration expressed by preservice teachers completing the exam. As described in

Olson and Rao (2017), policy-makers in Illinois seem convinced that the edTPA is a positive addition to licensure requirements despite numerous objections from groups of teacher educators throughout the state. Until policy using the edTPA as a high-stakes licensure assessment changes, preservice music teachers must complete it in order to be licensed to teach in Illinois.

For music teacher educators, high-stakes use of the edTPA puts them at the intersection of their interest in preparing the next generation of music educators and state-mandated licensure policy (Greenblatt, 2015; McKibbin, 2015). For their students, completing the edTPA can be a frustrating and time-consuming process (Cronenberg et al., 2016; Lin, 2015), but one that has the potential to function as a formative exercise in planning, teaching, assessing, and reflecting within an authentic setting (Sato, 2015) – expectations compatible with contemporary music teacher education practice (Bauer & Nunn, 2003; Conkling, 2003; Powell, 2016). If the edTPA contains formative tasks meant to improve teaching practice, then it is in the interest of music teacher educators to highlight those to justify the time and effort needed to complete the assessment. This will help preservice music teachers simultaneously pass the edTPA and feel as if they learned about their own teaching process. As suggested in Meuwissen and Choppin (2015) and reinforced through this study, heightened awareness the high-stakes use of the edTPA does not diminish perceptions of the possible formative tasks. So, having frank and open discussions with preservice music teachers about this relationship can help use the stress associated with the high-stakes use of the edTPA as an opportunity for learning instead of wasted energy completing an obligatory requirement.

Music teacher educators may be able to help preservice teachers feel readier to teach through the edTPA by highlighting the formative dimensions described in this study. Music teacher educators can use edTPA-aligned lesson plans, assessments, or reflective exercises

throughout their existing curricula to help ease the frustrations often created by the edTPA's structures. When tensions related to the edTPA's requirements become overwhelming, preservice music teachers tend to stop seeing the formative opportunities and see the tasks as detracting from their student teaching experience. By helping preservice music teachers see the planning, adjusting, and reflecting opportunities within the edTPA as opportunities to justify their instructional decisions and grow professionally, the *deep structures* of teaching meant to confront assumptions about one's teaching through interpreting experiences and analyzing available data (Shulman, 2005) could be more fully realized by the preservice music teacher.

Over the course of the student teaching semester, the preservice music teachers participating in the current study increasingly agreed that the edTPA detracted from their overall music student teaching experience. This suggested an incongruity between the expectations of the edTPA and the expectations of the preservice music teachers. The current study, as well as Parkes and Powell (2015), have suggested that this incongruity could be rooted in the assessment expectations of the edTPA not being compatible with current philosophies about music teaching.

Music teacher educators could help attenuate stress by providing appropriate models and methods for assessment—specifically assessments that can quantify music learning—during coursework prior to student teaching so preservice music teachers are more comfortable creating assessments that can provide data on student learning (Heil & Berg, 2017). If music teacher educators help their students develop and use meaningful numerical data through assessment (Robinson, 2015), music teacher educators can help make assessing through the edTPA a more natural extension of assessment techniques instead of a new exercise carried out for the sole purpose of passing the edTPA. Although the assessment-related aspects of the edTPA could not

be analyzed through this study, the edTPA's emphasis on assessment warrants further speculation and research.

These implications are not meant to suggest that the edTPA is an accepted good or that music teacher educators and preservice music teachers must view the edTPA positively in order to experience any benefits. Issues such as privatizing teacher education (Parkes & Powell, 2015), narrowing of teacher education curricula for the sake of state control (Zeichner, 2010), having efficiency, predictability, and control as goals for teacher education instead of more humane ends (Koziel, 2018), and education's continuing overdependence on data (Berliner & Biddle, 1995; Robinson, 2015) are still implicated in the expansion of the edTPA's use. But those larger issues in education are long-term goals in educational policy, and preservice music teachers must still complete and pass the edTPA in the short-term if they hope to teach music in public schools in the coming years.

Limitations of the Current Study

The most limiting aspect of the current study was its use of a convenience sample within a highly specific population. Fowler (2014) recommended that surveys use some form of random sampling in order to best represent the views of a population (pp. 18-21). Randomly selecting a sample for the current study was not possible. Despite acceptable response rates from the non-representative sampling frame, bias was introduced into the perception data.

The sample size, while robust enough to perform inferential analyses, was too small to be able to establish covariates or factors that could have differentiated the sample in meaningful ways aside from the time between the pre- and posttest. Participant attrition between the pre- and posttest for the current study (30%) could have also represented sampling bias in the posttest response. But attrition rates do not necessarily disqualify results. Zhou and Fishbach (2016)

recommended that any attrition rate be examined for randomness to determine if there is possible reason or bias for the nonresponse. While the posttest nonresponses were determined to be random through χ^2 tests of independence, the smaller posttest sample still could have inflated the amount of sampling error and bias when comparing the pre- and posttest dimension responses.

Suggestions for Future Research

The current study provides the foundation for multiple studies addressing preservice music teachers' perception of the edTPA. While the current study was able to define and describe relationships and changes in perceptions, it was unable to identify factors that could have contributed to the variations. Past research has indicated that knowledge of the cooperating teacher (Behney, 2016; Petchauer et al., 2018), TEP support (Greenblatt, 2016; McKibbin, 2015; Olson & Rao, 2017), support from other preservice teachers (Heil & Berg, 2017; Meuwissen & Choppin, 2015), general writing ability (Goldhaber et al., 2016), and ability to adapt assessment expectations to ensembles (Parkes & Powell, 2015) could all act as possible factors affecting preservice music teacher perception of the edTPA.

Studies examining how these factors potentially affect different stakeholders affected by licensure policy that include the edTPA will begin to complete the final piece of the framework for understanding teacher education policy in the current era of accountability (Cochran-Smith et al., 2013), impact and implementation. As stated in Chapter 1, the current study represents the “policy in practice” aspect of the framework by Cochran-Smith et al. (2013), because of its focus on the preservice teachers as the primary stakeholders. Because the intention of the framework was to examine how the policy affects teacher educators, care must be taken before suggesting any potential impacts or outcomes of an enacted policy on preservice teachers. The next step is to find possible outcomes related to policy that uses the edTPA as a high-stakes assessment and

its effects on preservice teachers, “particularly in terms of power relations, control, dominant/marginalized discourses and groups, and (dis)empowerment of practitioners” (p. 9). For example, a future study can illustrate how preservice teachers felt in control of their teaching during their edTPA completion in terms of instructional decisions or pedagogical decisions. In other words, did they feel empowered by being able to make their own instructional decisions or did they feel constricted by the format and demands of the edTPA? Another example of future empirical work along these themes would be to confirm or disprove the theory from Petchauer et al. (2018) that suggests that the edTPA negatively affects teachers of color based on historical trends in teacher licensure policy, thus seeing how the policy affects historically marginalized groups. The positive or negative outcomes regarding the edTPA or similar portfolio assessments would provide evidence to adjust policy for their use as a high-stakes licensure exam, eliminate their use as accountability measures, or support their use in multiple forms of teacher licensure policy.

The edTPA is meant to develop self-assessment skills through reflection (Sato, 2015). A future study could approach this process through a set of interviews to explore the depth of the reflective process to help preservice music teachers realize the larger purpose of the edTPA. In turn, a study on this topic could help music teacher educators guide preservice music teachers’ cognitive processes so that they could properly self-assess and perform quality professional work as teachers (Shulman, 1998).

The current study found multiple instances where the goals of the edTPA did not align with the preservice music teachers’ ideas of quality music teaching. An avenue of inquiry could be to examine exactly which parts of the edTPA do not align with preservice teachers’ understanding of music teaching. The three tasks of the edTPA contain very specific criteria that

might not be similar to the way preservice music teachers were taught about music teaching. This gap in understanding possibly contributed to the frustrations experienced while completing the assessment for preservice teachers in general education (Coloma, 2015; Greenblatt, 2016); frustrations that, as demonstrated from the current study, could detract from the overall music student teaching semester. Furthermore, questions regarding the writing component of the edTPA are worth asking due to varying writing abilities among the preservice teachers who write up to 25 pages of rationales and reflections to complete the portfolio (Goldhaber et al., 2016).

Empirical research in music education regarding the edTPA was extremely scarce at the time of this writing. The current study was only able to describe and analyze preservice music teacher perceptions due to the lack of evidence that could have defined perceptions of the edTPA. Scholarship in general education provided some guidance for how perception could be defined but, like the edTPA itself, one cannot hastily apply a concept from general education and expect similar results in music education (Barrett, 2011; Vaughan-Marra & Marra, 2017).

Conclusion

The edTPA is a problematic tool for measuring music teacher readiness. It is difficult to say if this study's findings have illuminated gaps in Illinois music teacher education or if the edTPA was poorly adapted to fit the needs of Illinois music teachers. Perhaps it is a little of both. But, it is clear that completing the formative tasks of the edTPA did not necessarily resonate with preservice music teachers who had to complete it as high-stakes licensure assessment. This disparity between the edTPA's intent to inform teaching practice by guiding self-assessment skills and how it was perceived by the preservice music teachers currently presents two potential actions for music teacher educators: (1) look for ways to adapt music teacher education curricula to the expectations of the edTPA where necessary and/or (2) find ways to help preservice music

teachers see the formative exercises of the edTPA as opportunities to improve their teaching practice prior to completing it.

These adaptations should only be made for the short-term. The edTPA is entangled in policy that is “unavoidably political” and a “messy, contested space of competing interest groups and ideologies” (Cochran-Smith et al., 2013, p. 23). The current political landscape favors outcome measures as indicators of effective teacher licensure policy (Robinson, 2015). Therefore, future research must rely on empirical observations of the impacts of the edTPA on the stakeholders within music teacher education in order for music teacher education to contribute to the ongoing discussion of teacher accountability through licensure.

Currently, resistance has not translated to meaningful policy change. Teacher educators in Illinois are currently adapting to the edTPA while simultaneously resisting it (Olson & Rao, 2017). One form of the resistance has been petitions to the Illinois State Board of Education (ISBE) to reconsider implementing policy that uses the edTPA as a high-stakes licensure assessment, arguing that “the edTPA should not be the sole measure of student teacher performance without sufficient evidence or research to support the validity and effectiveness of the assessment” (p. 389). But, the ISBE seemed unmoved by the petitions, responding with “letters highlighting the advantages of the edTPA and the supports in place to ease the transition” (p. 390). Considering that policy-makers appear unwilling to change the licensure policy in the absence of strong evidence suggesting negative effects, much more work needs to be done to determine if policy that uses the edTPA as a high-stakes licensure assessment presents enough harm to teacher educators, preservice teachers, or (even) the students in classes where the edTPA is being completed to change policy-makers’ minds.

It is imperative that work towards solving the problems of the edTPA in music education move beyond theoretical criticism of the assessment and toward empirical evidence of the impact of the edTPA on the various stakeholders in music teacher education. Aligning with the suggestions of Prichard (2018) and following the framework from Cochran-Smith et al. (2013), the current study contained first-hand accounts of the edTPA in practice and was only able to speculate about the possible impact of the enacted policy. But this study provided a model for studying how preservice music teachers interpreted their experience completing the edTPA during student teaching. Research must continue along these lines to address edTPA policy in practice and eventually be able to describe the impact of the policy beyond speculative assumptions. By continuing to study the edTPA in practice, music education researchers could determine if the edTPA needs to be modified, eliminated, or replaced.

Licensure policy must always be questioned, problematized, and studied empirically to provide a foundation for either retaining the policy or changing it. Empirical work regarding the edTPA's impact on music teacher education is just beginning. In the meantime, music teachers must stay vigilant in studying the constant policy changes while providing the best possible support for their students who must obtain licensure to teach in public school classrooms.

Ultimately, music teacher educators should strive to educate future music teachers to be knowledgeable, thoughtful, imaginative, humane, and dedicated to their students. Part of this process involves passing the obligatory assessments necessary to obtain teacher licensure. Whether these assessments are fair and represent qualities valued in music teaching is truly a wicked problem in music teacher education. But wicked problems need not impede quality music teaching for the sake of policy. Music teacher educators can always strive to teach their students to achieve beyond the expectations of a singular assessment.

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APPENDIX A

DEMOGRAPHIC SURVEY QUESTIONS

- 1) What is your primary teaching focus?
 - a. Band
 - b. Choir
 - c. Orchestra
 - d. General Music

- 2) With which gender do you identify?
 - a. Female
 - b. Male
 - c. Non-binary
 - d. Prefer not to say
 - e. Prefer to self-describe (Open Response)

- 3) To which race do you identify?
 - a. White/Non-Hispanic
 - b. Black
 - c. Hispanic
 - d. Asian/Pacific Islander
 - e. Other
 - f. Prefer not to say

APPENDIX B

PRESERVICE MUSIC TEACHER PERCEPTION QUESTIONNAIRE

Pretest prompt : Please rate the following statements about how you anticipate completing the edTPA.

Posttest prompt: Please the following statements about how you feel after completing the edTPA.

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree/Disagree	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

(Randomized for each participant)

-
- I can accurately describe the effectiveness of my edTPA lesson
 - I can analyze and evaluate informal assessments as described in the edTPA
 - I can adjust my music instruction based on my analysis of assessment data
 - My music lesson plans for the edTPA are similar to how I have been taught to plan through my university
 - I can adjust a musical lesson during a class to help a struggling student
 - I feel ready to teach music because of the edTPA
 - The reflective practice of the edTPA helps me analyze my music teaching
 - I can connect my edTPA plans to musical standards
 - I am not worried about passing the edTPA
 - I can plan my music lessons to be adaptable for students with disabilities
 - I feel ready to teach music through preparation of the edTPA portfolio
 - I feel ready to teach music through completion of the edTPA portfolio
 - I understand the edTPA's prompts and rubrics for K-12 Performing Arts
 - I know where to find resources about the edTPA for K-12 Performing Arts
 - The edTPA is a fair assessment of my music teaching ability
 - The goals of the edTPA are consistent with the goals of my music education program
 - My reflective abilities will be a strong component of my edTPA portfolio
 - The score I earn on the edTPA reflects my abilities as a teacher
 - My university gave me the tools to perform well on the edTPA
 - The edTPA helps me think like a music teacher
 - The edTPA can help me improve as a music teacher
 - The edTPA highlighted my strengths for teaching music
 - The edTPA highlighted my weaknesses for teaching music
 - I am concerned about the administrative elements of the edTPA (i.e. uploading documents, video recording, rules of the assessment)
 - The edTPA detracted from my overall music student teaching experience
-

APPENDIX C

IRB EXEMPTION LETTER

RPI Name: Dr. Louis Bergonzi

Project Title: *Preservice Music Teachers' Perceptions of the High-Stakes and Formative Elements of the edTPA*

IRB #: 18340

Approval Date: November 20, 2017

Thank you for submitting the completed IRB application form and related materials. Your application was reviewed by the UIUC Office for the Protection of Research Subjects (OPRS). OPRS has determined that the research activities described in this application meet the criteria for exemption at 45CFR46.101(b)(2). This message serves to supply OPRS approval for your IRB application.

Please contact OPRS if you plan to modify your project (change procedures, populations, consent letters, etc.). Otherwise you may conduct the human subjects research as approved for a period of five years.

Exempt protocols will be closed and archived at the time of expiration. Researchers will be required to contact our office if the study will continue beyond five years.

We appreciate your conscientious adherence to the requirements of human subjects research. If you have any questions about the IRB process, or if you need assistance at any time, please feel free to contact me at OPRS, or visit our website at <http://oprs.research.illinois.edu>

Sincerely,

Jennifer Ford

Human Subjects Research Specialist, Office for the Protection of Research Subjects

APPENDIX D

INITIAL CONTACT EMAIL FOR TEP REPRESENTATIVES

Greetings Student Teacher Coordinator at [University],

My name is Benjamin Helton and I am Lecturer of Music Education at Case Western Reserve University and a doctoral candidate at the University of Illinois. I am looking for student teacher cohorts to volunteer for my dissertation research.

I am exploring preservice music teachers' perceptions of the edTPA and would like to survey your student teachers in the Spring 2018 semester. There will be a pretest and posttest for this study. The tests will be minimally invasive and take less than 10 minutes each. The pretest will need to be given during your first student teaching seminar. The posttest will be given to preservice music teachers who volunteer an email address for a follow-up email to be completed after they complete the edTPA.

You would not have to keep any records. All I would need is for you to do is send the link to the online survey to your student teachers on your first student teacher seminar day. You will receive the link to the survey very close to the very beginning of your semester.

If you are interested, please respond to this email with the following information:

- 1) How many student teachers will be in your cohort in Spring of 2018?
- 2) When will your first student teaching seminar take place?

You would be free to leave the study at any time during the semester and all information collected will be anonymous and confidential.

I thank you for your time and look forward to your response.

APPENDIX E

EMAIL FORWARDED TO RESPONDENTS BY TEP REPRESENTATIVES

Student Teachers,

Our student teaching cohort has been asked to volunteer for a study exploring the preservice music teachers' perceptions of the edTPA. The study involves taking a series of quick tests twice throughout the semester. Each test should take no longer than 10 minutes to complete. Participation in this study is voluntary and lack of participation will not affect the relationship with the student teaching coordinators or affect your status in this program. You will also be free to withdraw from the study at any time.

Below is a message from the researcher and the link to the survey.

Greetings!

I am conducting a research study about how preservice music teachers perceive elements of the edTPA. The recent policy change has created a need to study the new policy in practice. This study can hopefully give further insight about how preservice music teachers approach and perceive the edTPA during a student teaching semester when they have to complete the edTPA. The test is designed to provide minimal risk to the participant.

This study is complete voluntary; you may withdraw at any time or refuse to answer a question without penalty. At the end of the initial test, you will be asked for an email address so you can be contacted for the posttest. Providing an email address for a follow-up will be voluntary.

Participation includes completing an anonymous online survey. The survey should take about ten minutes to complete. Because all surveys are completed anonymously, your responses are completely confidential.

In general, we will not tell anyone any information about you. When this research is discussed or published, no one will know that you were in the study. However, laws and university rules might require us to disclose information about you. For example, if required by laws or University Policy, study information which identifies you may be seen or copied by the following people or groups: a) The university committee and office that reviews and approves research studies, the Institutional Review Board (IRB) and Office for the Protection of Research Subjects, or b) University and state auditors, and Departments of the university responsible for oversight of research.

If you have questions or concerns about this research study, please feel free to contact the Principal Student Investigator: Benjamin Helton, Doctoral Candidate in Music Education, University of Illinois (bhelton@illinois.edu or 708-552-7906). If you would like further information, you can contact the Responsible Principal Investigator, Dr. Louis Bergonzi, Professor of Music Education (bergonzi@illinois.edu or 217-333-2620).

If you have any questions about your rights as a participant in this study or any concerns or complaints, please contact the University of Illinois Institutional Review Board at 217-244-966.

Thank you in advance for taking the time for this survey. By clicking on the link, you consent to participating in this survey study. The link to the survey is below.

[Link to Survey]

APPENDIX F

PRETEST CONSENT FORM

Greetings!

I am conducting a research study about how preservice music teachers perceive elements of the edTPA. The recent policy change has created a need to study the new policy in practice. This study can hopefully give further insight about how preservice music teachers approach and perceive the edTPA during a student teaching semester where they have to complete the edTPA. The test is designed to provide minimal risk to the participant.

This study is completely voluntary; you may withdraw at any time or refuse to answer a question without penalty. At the end of the initial test, you will be asked for an email address so you can be contacted for the posttest. Providing an email address for a follow-up will be voluntary.

Participation includes completing an anonymous online survey. The survey should take about ten minutes to complete. Because all surveys are completed anonymously, your responses are completely confidential.

In general, I will not tell anyone any information about you. When this research is discussed or published, no one will know that you were in the study. However, laws and university rules might require me to disclose information about you. For example, if required by laws or University Policy, study information which identifies you may be seen or copied by the following people or groups: a) The university committee and office that reviews and approves research studies, the Institutional Review Board (IRB) and Office for the Protection of Research Subjects, or b) University and state auditors, and Departments of the university responsible for oversight of research.

If you have questions or concerns about this research study, please feel free to contact the Principal Student Investigator: Benjamin Helton, Doctoral Candidate in Music Education, University of Illinois (bhelton@illinois.edu or 216-368-2361). If you would like further information, you can contact the Responsible Principal Investigator, Dr. Louis Bergonzi, Professor of Music Education (bergonzi@illinois.edu or 217-333-2620).

If you have any questions about your rights as a participant in this study or any concerns or complaints, please contact the University of Illinois Institutional Review Board at 217-244-966.

Thank you in advance for taking the time for this survey. By clicking on the next button, you consent to participating in this survey study.

APPENDIX G

POSTTEST CONSENT FORM

Thank you again for participating in the second part of my study about how preservice music teachers perceive elements of the edTPA. The recent policy change has created a need to study the new policy in practice. This study can hopefully give further insight about how preservice music teachers approach and perceive the edTPA during a student teaching semester where they have to complete the edTPA. The test is designed to provide minimal risk to the participant.

This study is complete voluntary; you may withdraw at any time or refuse to answer a question without penalty. At the beginning of the questionnaire, you will be asked for the email address to which this survey link was sent. This email address will be used to align your responses with your pretest. You will receive no further emails.

Participation includes completing an anonymous online survey. The survey should take about ten minutes to complete. Because all surveys are completed anonymously, your responses are completely confidential.

In general, I will not tell anyone any information about you. When this research is discussed or published, no one will know that you were in the study. However, laws and university rules might require me to disclose information about you. For example, if required by laws or University Policy, study information which identifies you may be seen or copied by the following people or groups: a) The university committee and office that reviews and approves research studies, the Institutional Review Board (IRB) and Office for the Protection of Research Subjects, or b) University and state auditors, and Departments of the university responsible for oversight of research.

If you have questions or concerns about this research study, please feel free to contact the Principal Student Investigator: Benjamin Helton, Doctoral Candidate in Music Education, University of Illinois (bhelton@illinois.edu or 216-368-2361). If you would like further information, you can contact the Responsible Principal Investigator, Dr. Louis Bergonzi, Professor of Music Education (bergonzi@illinois.edu or 217-333-2620).

If you have any questions about your rights as a participant in this study or any concerns or complaints, please contact the University of Illinois Institutional Review Board at 217-244-9666.

Thank you in advance for taking the time for this survey. By clicking on the next button, you consent to participating in this survey study.

APPENDIX H

DECISIONS BASED ON NORMALITY CONCERNS

As can be seen on Tables 4.2 and 4.5, items 2, 3, 19 returned excess kurtosis $|X| > 2$ on both the pre and posttest. These items were beyond the acceptable excess kurtosis values so they were considered to violate the assumption of normality. Wording for these three is displayed in Table 18.

Table 18

Dropped Questionnaire Items

Item	Questionnaire Text
2	I can analyze and evaluate informal assessments as described in the edTPA.
3	I can adjust my music instruction based on my analysis of assessment data.
19	My university gave me the tools to perform well on the edTPA.

It is possible that item 2 was poorly worded by incorporating more than one possible perception in the question, i.e., containing both analyzing and evaluating as tasks. Item 3 asked preservice music teachers to evaluate their assessment abilities, which they might not have connected to assessing students through the edTPA. Pre and posttest scores from item 19 were strongly and negatively skewed with a high means, which may indicate that the preservice music teachers perceive a strong connection between their TEPs and the tasks of the edTPA. These non-normal distributions either indicate that these items were either polarized in response or poorly worded.

Regardless of the reasons for the poor distribution, these three items were dropped from any further analysis, including the exploratory factor analysis on the pretest questionnaire responses described in Chapter 3. This decision addressed concerns regarding the inclusion of

non-normal data in inferential analyses, which would create a greater risk of Type I error (Gravetter & Wallnau, 2014, p. 213). Non-normal distribution of data also violates one of the criteria for using ordinal data as scale (Newton & Rudestam, 2013). Histograms of pre and posttest responses to items 2, 3, and 19 can be seen in Figures 4 through 6.

Figure 4. Histogram of Responses to Pre and Posttest Item 2. Responses. Responses for both pre and posttest were leptokurtic, with the mode being six or “Agree.” The concentration of responses was greater in the posttest than the pretest while also having a smaller range of responses. The text for Item 2 was, “I can analyze and evaluate informal assessments as described in the edTPA.”

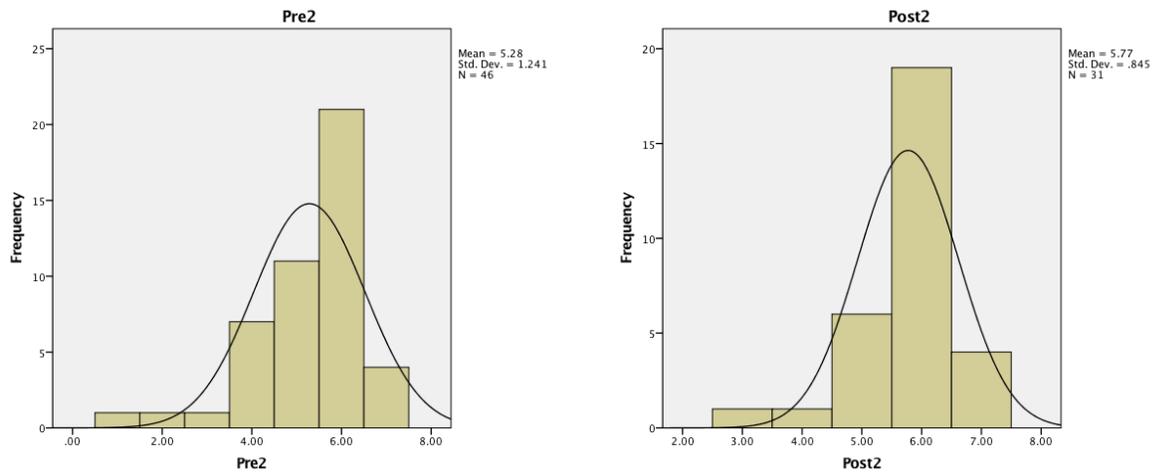


Figure 5. Histogram of Responses to Pre and Posttest Item 3. Responses from pre to posttest shift slightly positive but remain leptokurtic with the mode remaining at six or “Agree.” The text for Item 3 was, “I can adjust my music instruction based on my analysis of assessment data.”

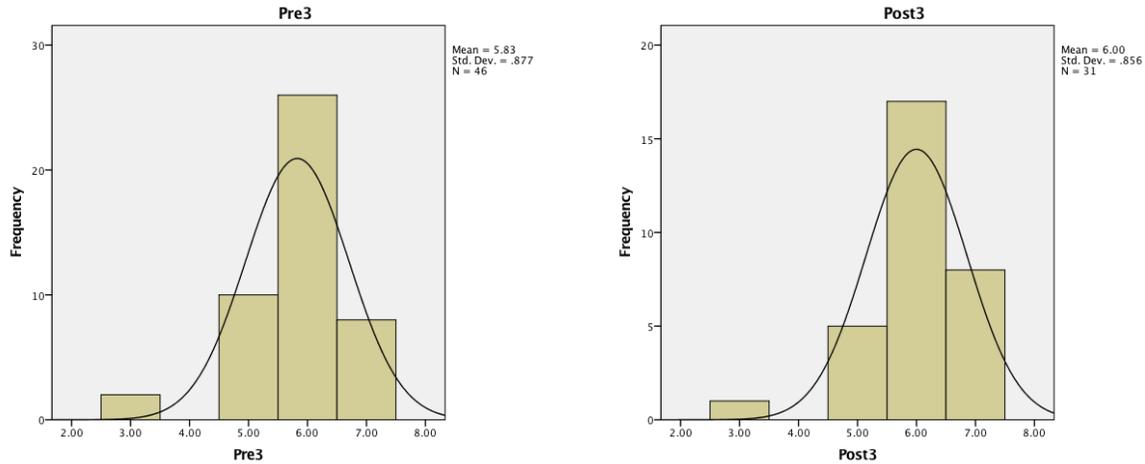
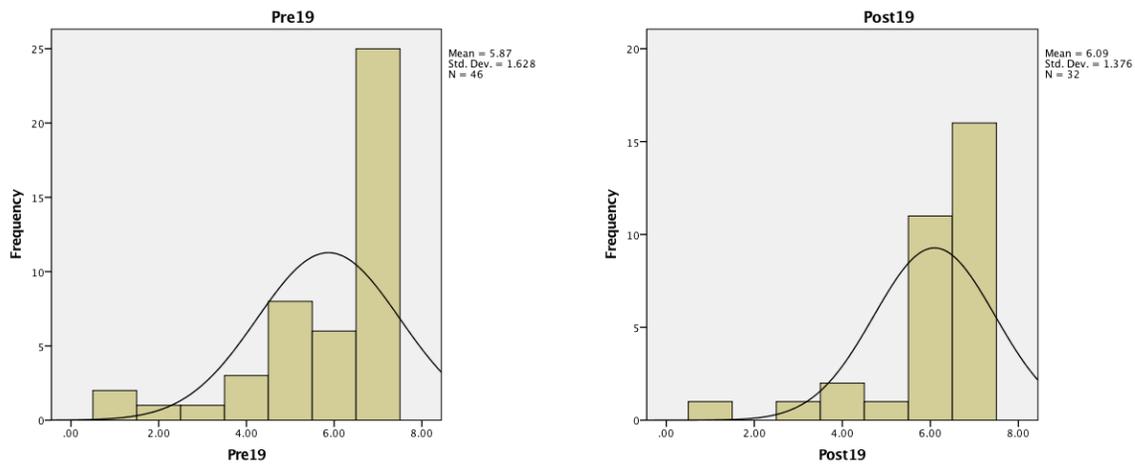


Figure 6. Histogram of Responses to Pre and Posttest Item 19. Responses were leptokurtic for both the pre- and posttest, but slightly less so in the posttest. The posttest mode of the responses was still seven or “Strongly Agree” with an outlier who responded, “Strongly Disagree.” The text for Item 19 was, “My University gave me the tools to perform well on the edTPA.”



Despite having excess kurtosis scores greater than $|2|$ on the posttest, items 4, 5, 7, 8, and 13 were included in perceptual variable score analyses for three reasons: (1) these items were used to calculate the pretest dimension scores based on the pretest EFA, (2) each item’s pretest excess kurtosis values was less than $|2|$, and (3) pre and posttest dimension scores needed to contain the

same questionnaire items between pre and posttests in order to properly calculate any gain scores for the fourth research question.

All response distributions, as reflected in excess kurtosis values, were relatively close to acceptable with the exception of posttest item 5, “I can adjust a musical lesson during a class to help a struggling student,” which had an excess kurtosis of ($X = 10.90$). Excess kurtosis was also inflated by the existence of an outlier and two respondents not rating this item. It is also possible that the reduced sample size from pre to posttest contributed to skewed distribution of the item 5 posttest responses. Regardless of the high excess kurtosis, item 5 was still included in the posttest dimension calculation. Responses to posttest item 5 can be seen in Figure 7.

Figure 7. Histogram of Responses to Posttest Item 5. Responses to posttest item 5 were leptokurtic. All but three respondents either “agreed” or “strongly agreed” with the statement. The outlier indicated that they “Strongly disagree” with the item, “I can adjust a musical lesson during a class to help a struggling student.”

