THE PREDICTIVE RELATIONSHIP BETWEEN GPA, COOPERATING TEACHER ASSESSMENT RATINGS, AND PRACTICE TEACHER PERFORMANCE ASSESSMENTS UPON SUCCESSFUL COMPLETION OF A SUMMATIVE TEACHER PERFORMANCE ASSESSMENT

by

Robert Shane Lazzell

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

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APPROVED BY:

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ABSTRACT

Ensuring quality within teacher preparation programs is critical to the success of producing excellent teachers. Numerous studies focus on the influence teacher preparation programs have on emerging teacher self-efficacy, but few studies explore the correlation between teacher preparation programs and successful teaching performance. This quantitative, correlational research study explores how well cumulative GPA, cooperating teacher feedback scores, and practice teacher performance assessment scores can predict performance on Pearson's edTPA. The data for this study is collected from institutional records of 72 students at a Midwestern school of education. The results indicate that GPA, cooperating teacher feedback scores, and practice teacher performance assessment scores have no statistically significant impact on edTPA scores. Implications of the findings are examined and recommendations for future research are made.

Keywords: pre-service teacher, student teacher, cooperating teacher, teacher performance assessment, edTPA

Dedication

I would like to dedicate this work to my best friend and wife, Becky Lazzell. The five-year endeavor resulting in this dissertation would have been impossible without her love, encouragement, and countless hours proof-reading and editing. She has served me unselfishly by taking care of things at home while I spend countless hours in the office working. I am incredibly thankful to God for her and her unconditional love and patience with me while I worked on this paper.

I dedicate this work to my children, Samuel, Mary Ann, and Elisabeth. I am eternally grateful to them for the hours they spent without me at home, or the hours spent listening to their parents discuss such riveting topics as teacher performance assessments, grade point averages, and cooperating teacher feedback.

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CHAPTER ONE: INTRODUCTION

Overview

The purpose of this study is to determine if there is a predictive relationship between cumulative GPA, cooperating teacher feedback scores, and practice teacher performance assessment scores (predictor variables) and performance on Pearson's edTPA (criterion variable). Chapter One provides a background for the topics of teacher preparation programs and teacher performance assessments. Included in the background is an overview of the theoretical framework for this study. The problem statement examines the scope of recent literature on this topic. The purpose statement of this study is followed by the significance of the study. Finally, the research question is introduced, and definitions pertinent to this study are provided.

Background

Over the past 40 years, the makeup of the traditional American classroom has dramatically shifted to include students with vastly different learning styles and intellectual abilities (Johnson, 2018). Amidst this paradigm shift, schools and teachers are also being held accountable for learner outcomes far more than in previous generations (Paine, Beal-Alvarez, & Sheetz, 2016). As the primary conduit for preparing teachers for these classrooms, teacher preparation programs face extraordinary challenges in identifying program weaknesses and implementing effective teaching strategies. These challenges may be especially difficult for colleges and universities as the advent of new technology, social standards, and overall paradigm shifts in higher education shape teacher preparation (Paine, Beal-Alvarez, & Sheetz, 2016). In response to this call for higher accountability in the classroom, teacher performance assessments have become popular in educator preparation programs.

Standards-Based Education

In 1981, The National Commission on Excellence in Education was established by the U.S. Department of Education to review literature and make recommendations to improve the quality of teaching and learning in the nation's public and private schools. The culmination of this study resulted in the report, *A Nation at Risk* (The Chronicle of Higher Education, 1983), which paved the way for repeated criticism and cries for reform in the American school system as well as the evolution of standards-based education reform and achievement testing. The standards-based education movement gained national traction in school districts and teacher preparation programs with the passage of the *Improving America's Schools Act* (IASA) in 1994. The IASA reauthorized Lyndon Johnson's *Elementary and Secondary Education Act* (ESEA) of 1965, also known as Title 1, and took aim at improving education for America's poorest children. Title 1 raised the academic achievement of millions of children (Jorgenson & Hoffman, 2003). In 1994, the *Goals 2000: Educate America Act* turned the focus of ESEA to the needs of all school children, not just the poor and at-risk. From 1994 to 2000, states all across the country acclimated their public education policies to reflect standards-based instruction established by the ESEA reforms. However, there was still no consistent means of testing the achievement of students.

No Child Left Behind

Signed into law by President George W. Bush in 2001, the No Child Left Behind (NCLB) legislation was enacted to standardize achievement testing across the nation's schools. NCLB is commonly credited for being the primary driving force of recent education reform in the American school system. In what is described as a nationalized take-over of public education, NCLB dramatically altered what was required of the states by ordering schools to increase

academic standards, incorporate standardized testing, ensure that all teachers are highly qualified, and demonstrate evidence of greater accountability (Kessinger, 2011).

Race to the Top

Presented as an extension of NCLB, Race to the Top was introduced in 2012 by the Obama administration (Howell, 2015). This federal education grant program was intended to further encourage reform by enticing schools and districts to compete for monetary awards by improving in four areas: utilization of standards and assessments, effective use of data systems, retention and enhancement of teacher effectiveness and equity, and the transformation of low-performing schools (Jahng, 2011). Unhappy with Race to the Top's lack of success in prompting change, President Obama signed the Every Student Succeeds Act (ESSA) in 2015. Despite being touted as a complete replacement for NCLB, the ESSA actually addressed two of the same primary reforms NCLB sought to enact: the federal government should play a vital role in providing resources and fostering policy change in education; and schools and teachers should be held responsible for the academic performance of all students, including those hampered by poverty (McGuinn, 2016).

Both NCLB and ESSA attempted to increase student achievement by transforming low-performing schools and shining a spotlight on effective teacher practices (Jahng, 2011). In light of the emphasis that modern education reform acts have placed on teacher effectiveness and quality, there has been a significant increase in research examining what effect teacher quality has on student achievement (Jones & Jones, 2015).

Teacher Preparation Program Response

From as far back as 1823, teacher preparation programs taught academic content, pedagogical methods, classroom management, and moral character development. Most programs

included instruction in sociology, philosophy, and educational psychology. This instruction was typically followed by fieldwork experiences in real classrooms with most students completing their degrees in four or five years (Nguyen, 2018). For the past few decades, teacher preparation programs have been influenced by distinct trains of thought; one focus is on the professionalization, or standardization of teacher preparation as in other countries as compared to U.S. teacher preparation programs, and the other focus is on the deregulation of programs, allowing more flexibility in instruction and training (Goldhaber, 2018). In either case, most modern teacher preparation programs front-load academic instruction and pedagogy during the first few years of instruction, requiring teacher candidates to apply that given knowledge at the end of their programs, during student teaching (Wilson, 2014).

As cries for education reform continue to resound in the American school system, teacher preparation programs are being scrutinized to determine their approach to these reforms. Recently, these programs have even been criticized for failure to examine their practices, including all coursework and fieldwork experiences in the context of effective teaching skills as well as current reform policies (Cash, Putman, Polly, & Byker, 2019). In the early years of NCLB, discrepancies in perception between district superintendents and college faculty began to surface (McFadden & Sheerer, 2006). School district leaders advocated for a redesign of teacher preparation that would include more in-school practice experience, while college instructors feared this additional practicum experience would come at the cost of lost theoretical and philosophical instruction within their programs (McFadden & Sheerer, 2006). Additionally, school district leaders were critical of the lack of flexibility in teacher candidate training, advocating for modification of training programs to rely less on professional qualifications and teacher standards and more on practical application of skills (Schneider, 2018). This demand for

flexibility in identifying skilled teacher candidates conflicted with the need to provide approved program coursework. Educator preparation programs began looking for ways to teach necessary skills while still adhering to standardized programs for state licensure (Schneider, 2018). In addition to the criticism of the lack of flexibility in training, there has also been criticism of teacher preparation programs for being filled with out-of-touch faculty members, vapid curriculum, and irrelevant teaching ideology (Wilson, 2014).

To address these growing problems in teacher education, many critics agree that solutions will come only from school districts and universities working collaboratively to redesign teacher preparation (McFadden & Sheerer, 2006). For example, the Boston public school system works closely with state teacher preparation programs to identify weaknesses in their existing teacher pool, then together they make suggestions for improvement to strengthen teacher candidate instruction. School districts throughout the state of Colorado also work closely with multiple state and private university partners to custom-design teacher preparation instruction to meet district needs (Education First, 2016). The city of Milwaukee, Wisconsin, has cooperative agreements with several local colleges and universities to provide alternate routes of teacher license preparation (Milwaukee Public Schools, 2020). Out of such cooperative efforts have come two significant gains: increased program accountability and the cultivation of alternatives to university-based teacher training (Wilson, 2014).

Given the cries for educational change and increased teacher preparation program accountability, many states and universities have responded to this pressure by adopting the use of teacher performance assessments (Goldhaber, Cowan, & Theobald, 2017), a tool for evaluating teacher candidates' development of knowledge and skills needed to enter the classroom (Cash, Putman, Polly, & Byker, 2019). Early performance assessments, commonly

referred to as teaching portfolios, have been utilized in teacher education since the 1980s (Gurl, Caraballo, Gunn, Gerwin, & Bembenutty, 2016). Portfolios were found to be so effective in teacher preparation that many school districts adopted their use in professional development and continuing education of their staff (Hamilton, 2020). More recently, portfolios have evolved into more specific teacher performance assessments (TPA's) that usually include a collection of teaching artifacts (lesson plans, video samples, student work samples) to assess the teacher's ability to plan, teach, and assess student work (Cash, Putman, Polly, & Byker, 2019).

Recent studies exploring the use of TPA's as a means of evaluating beginning teacher readiness have become powerful forces of change (Darling-Hammond, Accountability in teacher education, 2019). Many teacher preparation programs that incorporate teacher performance assessments identify student strengths in planning and instruction, but weaknesses in assessment, so the faculty and instructors use what they learned from scoring the portfolios to strengthen their assessment instruction (Sherfinski, Jalalifard, Zhang, & Hayes, 2019). As a result of completing this portfolio process, students improve in their assessment skills (Darling-Hammond, Accountability in teacher education, 2019). As states and teacher preparation programs look for ways to improve the quality of classroom instruction, they are utilizing what they learn from teacher performance assessments and other traditional standardized student teacher assessments to improve teacher performance and ultimately improve student learning (Pecheone & Chung, 2006).

In addition to the use of portfolios, another prominent element incorporated in TPA's is reflective learning, or critical self-reflection, which serves as a formative assessment to support teacher candidates' ongoing growth and learning (Shin, 2018). To prepare teacher candidates for these reflective elements of performance assessments, teacher preparation programs have begun

incorporating reflective writing into coursework to develop an appreciation of the complex nature of teaching and learning (McLean & Price, 2018). Required self-reflection activities after instruction serve to combine personal experience with educational theory and research (McLean & Price, 2017).

Within the context of teacher preparation, research suggests that a response to education reform cries can be a positive force for change (Wilson, 2014; Pecheone & Chung, 2006). Research in education reform clarifies the continued conflict between the reformers who believe change is necessary in teacher preparation, and college faculty who are resistant to alter their methodology (McFadden & Sheerer, 2006). Despite the objections of college faculty, cries for change have given rise to the incorporation of teacher performance assessments in teacher preparation programs across the country.

Theoretical Framework

Supported by Bandura's social cognitive theory (1989) and self-regulation theory (1986) underscoring the value of feedback and self-reflection, teacher performance assessments involve critical reflection with transformative learning that enables teachers to analyze the effects of their instruction on student learning (Liu, 2015). Albert Bandura developed the social learning theory in the 1960's, then further developed his ideas into the social cognitive theory in 1986. Social cognitive learning theory is described as a reciprocal triad function of behavior, individual cognition, and environment. Each of the three functions has an effect on the other two. An extension of behavioristic learning theories, Albert Bandura's theory of social cognitive learning maintains that learners observe modeled behaviors from others (instructors or peers), internalize those behaviors by committing them to memory, then translate those memories into personalized behaviors of their own. When learners are able to successfully match the observed behaviors,

their self-efficacy rises, and they tend to have greater confidence. Conversely, when a student is unable to successfully match the observed behavior, self-efficacy decreases, often leading to stress and anxiety (Bandura, 1989). This theory asserts that observing modeled behavior enables learners to obtain new behaviors and knowledge of their own. Bandura's social cognitive theory provides insight into how students process feedback and then turn that feedback into action in future work.

Bandura's self-regulation theory describes how a person's feelings, behaviors, and thoughts affect goal setting attainment. Individuals must not rely solely on the contribution of outside forces in order to attain their own goals. Instead, the self-regulation theory asserts that individuals must contribute personal motivation, behavior, and intellectual development to attain success in goal achievement. These three factors operate reciprocally to build a knowledge structure for self-regulation. As individuals encounter learning experiences, they retain feedback and memories to expand this knowledge base. These factors all then contribute to the development of personal goals (Bandura & Cervone, 1986), which impacts how students use feedback on performance assessments.

Research is beginning to emerge on how the use of teacher performance assessments is affected by GPA or student demographic information, but there is a gap in research about how actual pre-student teaching instruction and coursework affect the successful completion of a teacher performance assessment. Teacher preparation programs must ensure that pre-student teaching and student teaching experiences provide teacher candidates with opportunities to develop and apply the best practices, such as self-reflection while planning, teaching, and assessing instruction as well as the use of critical professor feedback to improve instruction (Bandura & Adams, 1977).

Many current teacher-licensure assessments incorporate the reflective learning theories supported by Bandura's self-regulation and cognition theories (Brown, Peterson, & Yao, 2016). The incorporation of critical feedback appears to show promise in improving student teacher success in instruction (Liu, 2015). Post-instruction self-reflection allows student teachers to reflect more deeply, think more widely, and link the broader principles of teaching to critical events in the classroom. College instructors who prepare teacher candidates to analyze their teaching techniques give them tools to use for self-analysis.

Problem Statement

Preparing teachers to serve the diverse needs of students in today's classrooms is a daunting task for colleges and teacher preparation programs. Due to the need for new teachers to excel in diverse classrooms, many teacher preparation programs have modified coursework from traditional pedagogy instruction to include new teaching techniques to address the needs of today's classrooms (Paine, Beal-Alvarez, & Sheetz, 2016; Clayton, 2019). Previous research studies have found that teacher candidates with high GPA's were more confident in preparation and overall readiness for the preparation and instruction elements of teacher performance assessments, than those with average or low GPAs (Brown, 2018). TPA planning tasks demonstrate the candidate's ability to plan for instruction by creating standards-based lesson plans that incorporate a variety of learning strategies and accommodations for student learning (Pearson Education, Inc., 2020). TPA instruction tasks include video clips of the candidate's actual classroom instruction to live students (Pearson Education, Inc., 2020). Other studies demonstrate that student teachers who are able to critically reflect on their own work may have an advantage in understanding how their future students will learn. Huston (2016) explored the effect of critical self-reflections on teacher candidates. Self-reflection in written commentary

deepens the student teachers' understanding of their teaching experiences. Furthermore, Brown, Peterson and Yao (2016) found feedback was shown to play a significant role in the development of student self-efficacy and academic performance. Given that teacher candidates typically complete practice teacher performance assessments before student teaching in methods courses, comparing baseline data on pre-student teaching performance assessments (TPA's) with later performance on TPA's completed during student teaching would be beneficial in the development of teacher preparation coursework (Okraski & Kissau, 2018). Additionally, teacher candidates' themselves benefit from self-reflection by identifying areas for development before student teaching (McLean & Price, 2018). To develop self-reflection skills, pre-service teachers should be given opportunities throughout their preparation programs to practice reflective written commentary (McLean & Price, 2018). Despite these related studies, there is little research concerning the effect that pre-student teaching instruction has on success during the student teaching experience or even after graduation during the first years of teaching.

The practice of self-reflection helps teacher candidates to frame problems and inform future instruction (Ajayi, 2016). Researchers studying special education teacher candidates found that without direct guidance in the reflective process from college instructors or mentor teachers, teacher candidates were unable to make meaningful application of their self-reflection (deBettencourt & Nagro, 2019). Teacher preparation programs must provide teacher candidates with content-specific instruction and support to better prepare them for today's diverse classrooms (Okraski & Kissau, 2018). The problem is that research has not fully addressed which pre-student teaching indicators demonstrate teacher candidate mastery of self-reflection, as revealed in scores of pre-service teacher exit exams.

Purpose Statement

The purpose of this quantitative, correlational study is to examine the predictive relationship between cumulative GPA, cooperating teacher performance scores, and practice teacher performance assessment scores (predictor variables) and performance on Pearson's edTPA (criterion variable). Because teacher performance assessments rely heavily on the use of reflective learning in the writing of narrative commentary, many teacher preparation programs have incorporated practice TPA's within undergraduate practicum experiences to introduce reflective learning and writing to their students.

This study will use GPA, cooperating teacher fieldwork assessment scores, and practice teacher performance assessment scores from 73 education majors at a Midwestern liberal arts university as predictor variables to examine their relationship with scores from Pearson's Educative Teacher Performance Assessment (edTPA), completed as an exit exam during student teaching. Pearson's edTPA is a standardized teacher performance assessment conducted during student teaching to assess the teacher candidate's readiness to enter the classroom (AACTE, 2020). The first predictor variable will be the candidate's cumulative GPA at the beginning of the student teaching semester. The second predictor variable will be the candidate's cooperating teacher fieldwork assessment scores on a standardized fieldwork rubric completed during the candidate's sophomore fieldwork experience. The final predictor variable will be the candidate's combined Analysis of Student Learning scores from a practice TPA completed during the junior fieldwork experience. The combined Analysis of Student Learning score will be derived from three teacher performance assessment tasks addressing candidates' ability to critically analyze their planning, instruction, and assessment in a real classroom experience (AACTE, 2020). The criterion variable will be the combined Analysis of Student Learning scores on the actual edTPA

completed during the student teaching experience. This analysis is identical to the assessment used in the practice TPA (AACTE, 2020) completed in the junior fieldwork. The final score for the edTPA is determined by the average of all 15 rubrics on Pearson's edTPA.

Significance of the Study

Based upon Pearson Education, Inc.'s claims of edTPA accuracy and reliability, teacher preparation programs use the assessment to determine student readiness to teach, while state licensing boards across the country use the assessment as a qualification test for licensure (Parkes & Powell, 2015). Since its inception, there have been research studies conducted on the edTPA's success in creating a standardized measure of teacher effectiveness (Parkes & Powell, 2015) as well as the edTPA's ability to bolster student teachers' self-efficacy in the classroom (Watson & Marschall, 2019). There has also been research contrasting how students of color and white students perform on the edTPA (Williams, Hart, & Algozzine, 2019). However, research is needed to determine how pre-student teaching coursework, practicum experience, and GPA affect student teacher performance on the edTPA, and ultimately on classroom instruction. Adding to the overall knowledge base of teacher preparation instruction, this study will help colleges and universities understand the benefits of preparing teacher candidates through instruction in reflective self-feedback on practice performance assessments (Williams-Chizhik, Williams-Chizhik, Close, & Gallego, 2017; Paugh, Bethke-Wendell, Power, & Gilbert, 2017; McArdle & Ryan, 2017). This study will be important to teacher preparation programs as they modify their coursework to address teacher performance assessments. It will also be important to teacher candidates themselves as they advance through their programs of study and prepare for the edTPA (Paine, Beal-Alvarez, & Sheetz, 2016; Kilty & Burrows, 2019; Brown S, 2018).

Research Questions

RQ1: How accurately can performance on Pearson's edTPA be predicted from the linear combination of grade point average, cooperating teacher assessment scores, and practice teacher performance assessment scores?

Definitions

1. *Pre-service teacher* – A teacher candidate enrolled in a teacher preparation program receiving training before his or her first teaching job (Smith & Ingersoll, 2004).
2. *Student teacher* – A teacher candidate who has been assigned to a school for his or her final capstone teaching practicum experience (Smith & Ingersoll, 2004).
3. *Cooperating teacher* – An experienced teacher who mentors a pre-service or student teacher (Smith & Ingersoll, 2004).
4. *Teacher performance assessment* – A portfolio-styled assessment that measures a teacher's pedagogical knowledge and skills in classroom instruction (Huston, 2016).
5. *edTPA* – The Educative Teacher Performance Assessment is a national, subject-specific portfolio-based teaching performance assessment.
6. *Cumulative GPA* – the total points earned in a program by the total number of credits attempted.

CHAPTER TWO: LITERATURE REVIEW

Overview

This systematic literature review examines the value of self-reflection in Pearson's Educative Teacher Performance Assessment. Typically taken during the process of student teaching, the edTPA is a standardized teacher performance assessment that evaluates how well teacher candidates plan, instruct, and assess learning in the classroom. This chapter presents a review of the current literature related to the topic of contributing factors to success in the edTPA. In the first section, theories relevant to self-efficacy, social cognition, self-regulation, and critical reflection are discussed. The second section contains a synthesis of recent literature regarding self-assessment, evidence-based assessment, performance-based assessment, the effect of grade point average on successful teacher preparation, the value of cooperating teacher feedback during fieldwork and practicum experiences, and the effect of the edTPA on teacher candidates and their instruction. The final section of this review explores how the use of the edTPA has affected how educator preparation programs, university supervisors, and cooperating teachers are preparing student teachers to implement self-reflection practices. In the end, a gap in the literature is identified, presenting a viable need for the current study.

Theoretical Framework

The potential benefit of teacher performance assessments to measure effective teacher preparation is best understood through the lens of a theoretical framework. This section explores four theoretical frameworks that guide the research in this study. The first two theoretical frameworks come largely from Bandura's self-efficacy theory (Bandura & Adams, 1977) and social cognitive theory (Bandura & Cervone, 1986). The third theory examined is Zimmerman's

self-regulation theory (Zimmerman & Kitsantas, 1997), and the final theory is Smyth's critical reflection theory (Smyth, 1989). Bandura's theories explore the how a person's self-efficacy and reflection on past experiences affect future performance. Zimmerman and Smythe's theories inform the self-reflection one uses to improve future performances.

Self-efficacy Theory

Self-efficacy Theory Defined

Self-efficacy is a belief in one's ability to succeed in a situation or specific task. Initially developed by Albert Bandura in 1977, self-efficacy theory explores the relationships between thinking, feeling, motivation, and behavior (Bandura & Adams, 1977). Bandura's theory asserts that there are four main sources to self-efficacious belief: mastery of experiences, vicarious experiences, verbal persuasion, and emotional or physiological states. As individuals take ownership of their growth in a skill-set, their self-efficacy grows and their actions can become almost automatic and routine (Watson & Marschall, 2019). Yost (2006) asserts that personal self-efficacy is responsible for the amount of effort individuals expend to complete tasks successfully. Additionally, the prominence of optimism about one's ability to learn contributes to self-efficacy and successful learning or completion of tasks (Phan, 2016).

Bandura (1994) describes mastery of experiences as the success individuals achieve when they take on new challenges and succeed. Just as success builds robust belief in individuals' personal self-efficacy, failures tend to undermine self-efficacy, especially if the failure occurs before efficacy is established (Bandura, 1994; Bandura, 1997). Individuals who believe they have the capability to succeed at a task or achieve a goal are more likely to try harder and less likely to give up (Webb-Williams, 2018). As individuals succeed in tasks, or achieve their goals, Bandura (1997) stresses the importance of interpreting and integrating those mastery

experiences. Because they are the most authentic indicators of an individual's capabilities, mastery experiences have the strongest effect on self-efficacy development (Pfitzner-Eden, 2016).

Bandura's second source of self-efficacy development comes through vicarious experiences. Observations and modeling are vicarious experiences that influence an individual's self-efficacy (Willis, Weiser, & Smith, 2016). According to Bandura (1994), observing similar people succeed by sustained effort gives observers the belief that they possess the capability to master similar activities. Observing peers in action strengthens an observer's self-efficacy to perform similar actions at similar levels (Martins, 2015). Vicarious experiences are especially beneficial in self-efficacy development when the observing individuals have little or no prior experiences in the subject area, or are uncertain about their own capabilities (Bandura, 1997; Willis, Weiser, & Smith, 2016).

Adding to Bandura's theories of mastery and vicarious experiences, self-efficacy development is also heavily influenced by the verbal persuasion of others that can convince individuals of their own capabilities, particularly if the source providing the persuasion is deemed to be a credible source (Pfitzner-Eden, 2016). Individuals who are convinced verbally that they possess the capabilities to be successful in certain activities are more likely to expend and sustain greater effort, even if they have strong feelings of doubt about their abilities (Bandura, 1994). Verbal persuasion can come in a variety of forms and from a variety of sources: colleagues, friends, family, instructors, and institutions (Hussain & Pennington, 2019). Judging personal capability becomes most effective through the cognitive and reflective thought of the verbal persuasion of others (Martins, 2015). Furthermore, verbal persuasion supplies positive information that enhances an individual's motivation to overcome difficulties, and that

persuasion is strengthened with the level of credibility, trustworthiness, and experience of the persuader (Martins, 2015; Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998; Bandura, 1997).

Emotional status, Bandura and Adam's (1977) final major source of self-efficacious development, refers to an individual's psychological response to, and feelings about an activity (Hussain & Pennington, 2019). Stress, anxiety, and physical excitement exert significant influence on performance. When individuals are anxious about performing an activity, especially a new experience, those feelings of nervousness often serve as roadblocks to learning and improvement (d'Allessio, 2018). Emotions of joy, pride, and love are associated with higher perceived self-efficacy, while individuals with a lower sense of self-efficacy feel hopeless, fatigued, and even angry (Burić, 2018). For example, in a classroom setting, when teachers feel successful in creating positive learning experiences for their students, they feel supported by a positive classroom climate (Martins, 2015). In any context, individuals with positive emotional self-evaluations are far more likely to be intrinsically motivated to pursue goals that will lead to higher performance and satisfaction (Bakker & Demerouti, 2008).

Self-efficacy Theory Established

Once self-efficacy is established, Bandura asserts that it remains relatively stable (Bandura, 1997). However, when developing, self-efficacy can be affected by professional feedback, experiences, and physiological or affective states (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). Because of these potential developmental factors, it is important to understand how self-efficacy is developed in early stages of development, such as teacher preparation programs (Tschannen-Moran & Woolfolk Hoy, 2007). Knowledge and beliefs are important to becoming proficient in a desired activity, and self-efficacy theory casts light on the relationship between thought and action (Bandura, 1997). In education, establishing effective methods for

pre-service teacher candidate opportunities to practice classroom teaching is required to develop high self-efficacy (Ekici, 2018). Bandura (1997) asserts that self-efficacy is most malleable in early learning, so the first years of teaching are the most critical for self-efficacy development. Therefore, colleges and other teacher preparation programs should craft realistic teaching experiences for candidates to practice and establish their teaching self-efficacy (Carrier, 2009).

Self-efficacy Theory in Teaching

Novices in any activity consider their actions in advance, and according to self-efficacy theory, they construct mental models of future action based on their self-assessment of knowledge, capabilities, and context (Bandura, 1997). For novice teachers, their self-efficacy in classroom instruction has an effect on their ability to plan and carry out future instruction. Teacher self-efficacy is the idea that teachers with a higher sense of personal efficacy in their own classroom teaching believe that they can have a higher effect on student achievement (Woolfolk, Rosoff, & Hoy, 1990). Originally conceptualized by Ashton (1984), teacher self-efficacy is also associated with teacher's beliefs about student autonomy, willingness to implement new teaching strategies, and the inclusion of motivational techniques for low achieving students.

Teacher efficacy beliefs are shaped primarily in the early stages of teacher preparation and development (Hoy & Spero, 2005). Guskey and Passaro (1994) assert that personal self-efficacy and teacher self-efficacy are similar constructs that are organized by a sense of internal and external factors of control. Multiple studies have reported that fieldwork, practicum, and student teaching experiences are the primary opportunities for pre-service teachers to increase in self-efficacy (Woolfolk, Rosoff, & Hoy, 1990). Once teacher candidates move out of student teaching and into their own classrooms, self-efficacy continues to play a pivotal role in success.

Teachers who have a high sense of self-efficacy demonstrate greater durability against the challenges that emerge in the classroom (Ekici, 2018). The theory of self-efficacy is relevant to this study because student performance on teacher performance assessments is heavily influenced by the proactive role that the individual takes in his learning, specifically in the narrative self-reflective commentaries, which reveal their self-efficacy.

Social Cognition Theory

Social Cognition Theory Defined

The social cognition theory asserts that self-observation, self-evaluation, self-reaction, and self-efficacy all have an effect on motivation and goal attainment (Bandura & Cervone, 1986). Initially termed as the social learning theory, Bandura's work gained traction in 1986 and became known as social cognition theory. His goal in developing this theory was to explain how individuals regulate their behavior through control and reinforcement of goal-directed actions over a specified period of time. For example, emotional regulation skills developed during early childhood are known to influence cognitive and social regulation during middle childhood, and vice versa (Bailey & Jones, 2019). Both of Bandura's theories center on a dynamic reciprocal relationship between their contributing factors. The social cognitive theory explores the relationships between self-observation, self-evaluation, self-reaction, and self-efficacy (Bandura & Cervone, 1986).

The Andressen, Konradt, and Neck (2011) study aligns the concept of self-observation with self-leadership within the social cognitive theory. According to that study, self-observation is defined as a process to improve self-motivation and influence one's self-direction. Self-observation, sometimes referred to as self-assessment, is a valuable tool to determine consistency across tasks, across items, and over short periods of time for individuals who were trained to

evaluate their work (Ross, 2006). Individuals with high levels of self-efficacy exhibit stronger motivation, persistence, and are more apt to accept innovative ideas (Bandura, 1997). As individuals move through the process of self-observation to reflect on their own practices, they are enabled to continuously analyze their abilities for further improvement (Eun, 2018).

Once individuals have made self-observations of their abilities to perform tasks, the next step in the process of social cognition is self-evaluation. Proust (2013) describes the self-evaluative view as the way individuals process whether or not they were able to do what they expected they should do in the observed task. Self-evaluation involves cognitively assessing how individuals remember, reason, or perceive their actions (Fernández-Castro & Martínez-Manrique, 2020). Self-evaluation of learning is strongly related to reliable performance and improved understanding of ability and function (Lyons & Bandura, 2019).

A third aspect of the social cognition theory involves people's self-reaction to their own behaviors. When individuals plan and anticipate their behaviors, they react by reflecting on the outcomes, then use that reflection to categorize those behaviors as successful or unsuccessful (Niveen, Kahlor, Lian, & Rosenthal, 2015). Zimmerman (2010) asserts that self-reaction takes place in a cycle of one of two forms. The first form of self-reaction includes the feelings of self-satisfaction and positive affect in a person's performance. A second form of self-reaction includes defensive or adaptive responses to one's performance of an activity (Zimmerman, 2010). For example, students who set goals for themselves are more likely to observe their performance in the target area and display higher levels of self-efficacy than those who do not set goals (Bandura & Schunk, 1981). As individuals perceive and react to their own actions, they become producers and not products of their environment (MacMahon, Carroll, & Gillies, 2020).

A final cog in the wheel of social cognition theory is self-efficacy. In light of the reciprocal nature of the relationship among personal, environmental, and behavioral factors, performance of behavior serves as a strong predictor of self-efficacy (Wilson, Marks-Woolfson, & Durkin, 2020). The motivational power of individuals' self-efficacy often transforms with time to strong feelings of affect toward their work, which in turn regulates their behavior (1977). Based on Bandura's (1997) social cognitive theory, self-efficacy beliefs are determinants of behavior and affective reactions to current and future behaviors (Mielniczuk & Laguna, 2020). Positive affective experiences related to an individual's work give more energy to engage in creating more solutions for implantation (Scott & Bruce, 1994).

Social Cognition Theory Established

Bandura asserts that the reciprocal interaction among the personal, behavioral, and environmental factors fosters learning and creativity (Bandura, 2001). Examined in light of Bronfenbrenner's ecological systems theory (1979), these personal characteristics make up multiple systems that play a pivotal role in development. As individuals interact within their environmental factors, or systems, their sense of agency is developed, and they are able to produce outcomes based on actions or behaviors (Bronfenbrenner, 1979). Social cognition is often established in formal education as knowledge and skills are commonly included in textbooks and online learning modules, but the social contexts of such knowledge are frequently overlooked (Regmi, 2020). When individuals take learning as a form of practice or action, they become the recipient of existing knowledge and become producers of new knowledge, based on those meaningful actions (Regmi, 2020). The development of social cognition is rooted in two types of expectations: efficacy expectation and outcome expectation (Lee, Chen, & Wang, 2017). An efficacy expectation is the belief that a person can successfully complete behaviors required

to produce desired outcomes, while outcome expectations are beliefs in the effects of actions on completing desired outcomes. These two separate expectations influence behavior initiation and regulation (Lippke, 2017).

Social Cognition Theory in Teaching

In a classroom setting, teachers establish goals based on personal characteristics, such as preferences, beliefs, and motivation (Plucker, Baghetto, & Dow, 2004). College students learning to become classroom teachers are developing these personal characteristics as they observe teaching techniques modeled by their instructors, evaluate their own practice teaching experiences through written personal and cooperating teacher feedback, and observe teachers leading student discussions and peer interactions during fieldwork experiences (Nathan, Eilam, & Kim, 2007). For the same reason that school districts incorporate learning theory driven professional development programs, teacher preparation programs need to incorporate learning theory driven instruction, because it improves understanding of cognitive development, which in turn leads to effective planning and identification of factors leading to success for pre-service teachers (Eun, 2019). The social cognition theory is relevant to this study because the behaviors and goals that individuals maintain during their pre-student teaching coursework and field experiences affect their success on teacher performance assessments such as the edTPA.

Self-regulation Theory

Self-regulation Theory Defined

A third theory guiding this research is Zimmerman's self-regulation theory, which asserts that people take control of their own learning by analyzing and evaluating their behaviors, then use that feedback to regulate their actions toward their goals of information acquisition, expanding expertise, and self-improvement (Zimmerman & Kitsantas, 1997). Drawing largely

from Bandura's theory of reciprocal interactions, Zimmerman developed his self-regulation theory in 1997. His theory asserts that there are four phases guiding self-regulation: cognitive-motor skill observation, initiation, self-control, and self-regulation (Zimmerman & Kitsantas, 1997).

Self-regulation Theory Established

Similar to self-efficacy theory and social cognition theory, self-regulation theory depends on internalized reflection of behaviors and attitudes, but also includes the use of written and verbal feedback to guide behavior. This feedback comes from internal reflection during preparation, implementation, and the completion of an activity (Brown, Peterson, & Yao, 2016). In the classroom setting, this type of feedback may come in the form of written journals or even instructor driven discussion. The use of feedback allows an individual to proactively regulate learning and use that learning to change future behaviors, rather than simply receive instruction passively (Van Laer & Elen, 2017).

Self-regulation Theory in Teaching

Computer and web-based education are changing the face of education significantly, evidenced most recently by accommodations made during the COVID-19 global pandemic. From K-12 to higher education, there have been radical changes to the way schools provide day to day classroom experiences (Green, 1991). As blended forms of learning rise in popularity, teachers must be able to evaluate their teaching methods for effectiveness in light of the changes taking place in schools (Smith & Kurthen, 2007). Self-regulation is a self-directed process in which learners convert their previously held mental abilities into new task-related skills for learning (Zimmerman, 1990). Reflecting on one's learning, as self-regulation theory asserts, is shown to have positive effects on cognitive, metacognitive, and motivational variables (Anseel,

2009). Self-regulation theory is relevant to the study because of the significant roles that feedback and reflection on learning play in the edTPA process.

Critical Reflection Theory

Critical Reflection Defined

Finally, a fourth theory guiding this research is critical reflection theory. John Smyth developed his theory of critical reflection in 1987, based on his studies of empiricist John Locke (Smyth, 1989). Smyth later published his ideas in 1989. For 21st century educators to be effective leaders, they must be able to reflect on their own practices in the classroom and adjust their instruction (LaBelle, 2017). Critical reflection in an educational context is a reasoning process that adds meaning to pedagogy instruction by adding knowledge attained from practice in the classroom. This type of reflection explores what has worked well in the classroom.

Just as self-reflection theory uses feedback to guide behavior and shape responses, critical reflection theory utilizes the application of knowledge acquired during instruction (Smyth, 1989). Critical reflection then requires an individual to examine both past and future actions, then use that reflection to chart a course of action. Within a classroom setting, individuals critically examine their instruction in the classroom, then make desired changes into their future instruction (Smyth, 1989). As an extension of critical thinking, critical reflection requires an individual to step back and examine one's thinking by asking questions, then use the answers to those questions to inform future actions.

Critical Reflection Established

Critical reflection can stand alone as a learning method, but often is paired with self-efficacy or self-regulation theories (Victoria State Government, 2007). Essential to this process is the real-life observation of and participation in teaching and learning within the classroom

(LaBelle, 2017). Critical reflection examines the present, but more importantly speculates about the future. When teachers take the time to evaluate the way they presented lessons or instructed their students, the critical reflection process gives them the opportunity to shape future instruction with the same students as well as subsequent groups of students. As individuals develop the skills of reflection and critical analysis, they see an intimate connection between practice and theory (LaBelle, 2017). Just as reflection is relevant to this study, critical reflection is also relevant because of its prominent role in the edTPA.

Critical Reflection in Teaching

Self-reflection is a core activity for all teachers in contemporary education, making the instruction of self-reflection a critical tool for teacher development (Kazeni & McNaught, 2020). Walkington (2010) asserts that teaching critical self-reflection is crucial because it assists in the development of teacher identity. In addition to instruction during initial education coursework, continued practice of self-reflection is an important part of the student teaching process, and even beyond when teachers get into their own future classrooms (Kazeni & McNaught, 2020). Addressing the importance of instruction in self-reflection, Frick, Carl, & Beets (2010) point out that a student teacher's preconceived ideas about teaching and learning are not often recognized, understood, or acknowledged by themselves, their education instructors, and their cooperating teachers, despite the decisive impact these preconceived ideas have on the process of learning to teach. Frick, Carl, & Beets (2010) further stress the importance of establishing a habit of critical self-reflection during early education course instruction, fieldwork, and practicum experiences.

Once student teachers leave their training placements and move into their own classrooms, the continued practice of critical self-reflection is best facilitated through appropriate professional development activities (Ajani, 2019). Reflective practices allow teachers to act in

deliberate, intentional ways to explore what they do, how they do it, and what the outcomes will be (Farrell, 2020). Farrell (2020) further asserts that critical reflection allows teachers to think about themselves and their teaching in light of their feelings and emotions, as well as their literal teaching practices. Application of these life-long learning processes promotes better instructional delivery and overall teacher quality (Ajani, 2019).

The literature explored in this chapter suggests that there is a relationship between student teacher success and pre-student teaching reflection experiences. The theories of self-efficacy (Bandura & Adams, 1977), social cognition (Bandura & Cervone, 1986), self-regulation, and critical reflection (Zimmerman & Kitsantas, 1997) lay the groundwork for effective learning experiences that contribute to student teacher success in completion of performance assessments such as the edTPA. These four theories address several practices common to teacher performance assessments: mastery of experiences, self-observation and regulation, and critical reflection. The following literature review demonstrates the tie between these practices and the edTPA (AACTE, 2020), which is examined in this study.

Related Literature

The related literature described in each of the following sections depicts the influence that self-reflection has on teacher performance assessments such as the edTPA. Themes presented below examine the positive effects of self-assessment, evidence-based assessment, and performance-based assessment on successful performance of teacher performance assessments. This review also examines the literature concerning the effect grade point average (GPA) has on teacher candidate performance as well as the influence of the edTPA on teacher candidate success, instruction in their preparation programs, and cooperating teacher training and expectations. The reviewed literature for this chapter is acquired through various online

databases including Google Scholar, Proquest, and online editions of peer-reviewed academic journals. The following are the primary keywords and phrases used to search for relevant sources: pre-service teacher, student teacher, cooperating teacher, self-directed feedback, peer feedback, cooperating teacher feedback, teacher performance assessment, grade point average, predictors of success on the edTPA, critical reflection, self-efficacy, social cognition, self-regulation, and edTPA.

Assessment

Assessment is a primary element of teacher preparation programs that incorporates reflection on cognitive processes of prospective teachers, the content of what they are thinking, the goals of their thinking, and the ways that thinking affects their teaching in the classroom (Liu, 2015). Employing what is sometimes referred to as personal practical theory, teacher candidates are trained to reflect on their own teaching experiences in an attempt to recognize and use those experiences to improve their instructional practice (Mehrpour & Moghadam, 2018). In the context of student teaching, successful teacher candidates not only understand the content they are teaching, but also how the content affects other subject areas they are teaching. Successful student teachers also practice imitation of teaching techniques modeled by mentor teachers. Self-assessment, evidence-based assessment, and performance-based assessment all rely upon critical reflection practices after instruction has taken place, or reflecting on teaching strategies that have proven successful and those that have not (Liu, 2015).

Self-reflection practices during instruction serve to reveal student teachers' practical beliefs about teaching and to stimulate those beliefs into actual classroom practice (Mehrpour & Moghadam, 2018). Student teacher success comes from critical reflection practices, such as continuously analyzing, questioning, and critiquing assumptions about self, schools, society, and

learning in general. If assessment does not lead to substantive change in action, the value of the assessment is minimal (Liu, 2015). Personal reflection is a key component of student teacher assessment because of the essential role that pedagogical belief development plays in teacher preparation (Fairbanks, Duffy, He, Levin, & Stein, 2010). Encouraging student teachers to engage in reflection on their beliefs, attitudes, and classroom teaching provides them deeper understanding of their experiences to inform their future classroom practices (He, lundgren, & Pynes, 2017).

Self-assessment

Among the three types of assessment examined in this literature, self-assessment and evidence-based assessment stress the importance of reflective practices to generate feedback, especially self-reflective feedback. Most teacher preparation programs incorporate self-reflective practices within coursework and fieldwork placements to promote critical thinking skills and develop professional growth (deBettencourt & Nagro, 2019). Rather than faculty assessment, student self-assessment generally involves students evaluating their own work and progress as they are learning. Before student teaching, self-assessment takes place in student coursework, journals, and fieldwork experiences. The student teaching experience provides pre-service teachers with more in-depth opportunities to reflect on their practice and gain valuable insights from cooperating teachers and university supervisors (Tsai & H, 2019).

As teacher candidates reflect on student teaching experiences, their descriptions typically focus on themselves, rather than on their students or other teachers, allowing them to identify gaps in skill or areas of weak knowledge (deBettencourt & Nagro, 2019). Teacher candidates are urged to reflect on or think critically about what they are doing and why they are doing it (McArdle & Ryan, 2017). Both self-assessment and evidence-based assessment practices

strengthen teacher candidates' ability to recognize their strengths and limitations while simultaneously refining their decision-making skills during instruction (deBettencourt & Nagro, 2019). Self-assessment and evidence-based assessment both underscore the importance of teacher growth. As teacher candidates regularly reflect on their practices, they notice a shift in how they view themselves (deBettencourt & Nagro, 2019). McArdle & Ryan (2017) maintain that evidence-based reflection also allows teacher candidates to grow in their teaching skill by ignoring the politics or social dynamics of a particular classroom and simply reflecting on their instruction (McArdle & Ryan, 2017). With the experience gleaned from this practice of self-reflection, student teachers develop the ability to easily reflect on their own learning, the strategies modeled by their cooperating teachers, and the learning of the students in their student teaching classrooms (Rasyidah, Triana, & Saukah, 2020).

Digital recording of student teaching instruction is considered good practice for self-assessment and is used in most teacher preparation programs (Ajayi, 2016). Students who record themselves have the benefit of reviewing their own work for reflective purposes, but also benefit from faculty and peer feedback aligned with their own feedback that can be synchronized to the very minute or even second on a video (Ardley & Repaskey, 2019). Self-assessment practices are built directly into each of the three edTPA sections. Student teachers are required to submit two ten-minute video clips of themselves teaching, and to write extensive commentary about their instruction (AACTE, 2020). This type of video self-assessment allows student teachers to analyze their own performance in the classroom, then use that data to connect their individual teaching experiences to the broader context of the ideas they are teaching (Ajayi, 2016). Labelle (2017) further asserts that 21st century educators need to continually utilize self-reflection techniques to improve not only their own instruction, but the entire teaching profession. The use

of video self-reflection, such as the method used in the edTPA helps students analyze and evaluate their teaching performance from an observer's stance, stimulate an externalization of their reflective ideas, and actively construct new insights into their teaching skill (Li, 2018).

Evidence-based Assessment

In addition to the valuable role of self-based assessment in teacher preparation, evidence-based assessment also provides useful data to teacher candidates and their college faculty as to their development in classroom instruction. Evidence-based assessment stems from the larger movement of evidence-based practice that involves using the best research-based methods available to provide instruction. There is significant value in teaching the interconnectedness of educational theory and instructional practice (Kim & Kim, 2017). Within most teacher preparation programs, students are given assignments and projects that provide their instructors with a constant stream of formative assessments of their understanding of pedagogy and educational theory (Bondie, 2016). These assessments typically come in the form of projects or assignments designed to convey the theory behind sound educational pedagogy and application of that pedagogy in the classroom. Surveys, feedback requests, and other forms of faculty communication also provide students and faculty opportunities for tracking progress toward learning goals. These types of evidence-based assessments, commonly utilized in fieldwork or practicum experiences, also provide practice in real-world classroom experiences, such as planning before instruction and reflection after instruction, and valuable cooperating teacher feedback (Bondie, 2016).

For college instructors and program developers, evidence-based assessments provide data that is helping in course design and revision, as well as instruction on understanding how to know the characteristics of learners within the context of their classroom (Kilty & Burrows,

2019). When student teachers reflect on their teaching experiences, they are not simply finding ways to describe previously understood concepts, rather, they are negotiating the meaning of their instruction in a social context (Bennion, Cannon, Hill, Nelson, & Ricks, 2019), then translating those concepts into future teaching experiences. Student teachers need methods and tools to help them focus on preparation of observable and evidence-based assessments during lessons, and reflections on the information gained from the assessment (Juhler, 2018). Evidence-based assessment allows clinical practice to merge with scientifically-based educational theory (Kim & Kim, 2017).

Performance-based Assessment

Self-assessment and evidence-based assessment practices have been commonly used in teacher preparation programs for decades. However, in recent years, performance-based assessments have grown in use as an alternative to traditional multiple-choice, or other objective tests. These types of assessments can take place in front of peers in a college classroom setting, or in a real classroom with a cooperating teacher. Rather than simply assessing a student's ability to produce test answers, performance-based assessments encourage the use of higher-order thinking to demonstrate understanding and are shown to be effective in changing pre-service teacher behaviors (Hattie & Timperley, 2007). For teacher candidates to grow in confidence and demonstrate understanding, they must be given ample opportunities to practice teaching (Anseel, 2009). When pre-service teachers are given opportunities before student teaching to practice skills they are learning in the classroom, it enhances their knowledge of pedagogy, improves the student teaching experience, and ultimately benefits overall student improvement (Coogle, Ottley, Storie, Rahn, & Kurowski-Burt, 2020).

Despite the value afforded by teaching performance-based assessment during the student teaching experience, there are challenges to identifying supervising teachers who have the time to mentor a student teacher, and challenges to finding a placement where the performance-based assessment is modeled effectively (Coogle, Ottley, Storie, Rahn, & Kurwoski-Burt, 2018). While state legislatures are mandating the use of performance-based assessment as a licensure requirement, educator preparation programs are implementing performance-based assessments, such as the edTPA, to give teacher candidates more confidence-building experiences (LaBelle, 2017), as well as provide additional tools for measuring teacher candidate development of knowledge and skills learned in units of study (Cash, Putman, Polly, & Byker, 2019).

Since the edTPA is typically utilized during the student teaching experience, teacher preparation programs are creating practice versions of the edTPA to prepare teacher candidates for the actual edTPA (Langeberg, 2019). These practice edTPA's take place during a fieldwork or practicum experience, prior to student teaching. Just as self-based and evidence-based assessments rely heavily on reflective feedback, performance-based assessments such as the edTPA, or a practice edTPA, utilize written feedback, or commentary, from the candidate. Performance-based assessments, as well as GPA and other teacher preparation experiences are linked to success on the edTPA (Cash, Putman, Polly, & Byker, 2019).

There are many theories about how performance-based assessments, like the edTPA, are improving the quality of teacher preparation and the overall teacher workforce. For example, the edTPA is becoming a high-stakes screen to restrict entry into the teaching profession (Goldhaber, Cowan, & Theobald, 2017). Educator preparation programs are also using performance-based assessments to prepare new teachers for success on their first day in the classroom (Cash, Putman, Polly, & Byker, 2019). Assessments such as the edTPA may also be improving the

quality of the overall teaching workforce by reinforcing effective teaching practices. Because it was designed to be used in a student-teaching context, the edTPA is effective in influencing pre-service teacher candidates in sound, research-based methodology that can shape their future instruction in their own classroom (Pugach & Peck, 2016). Consequently, as the edTPA becomes more commonly used nationwide in colleges and teacher preparation programs, it is becoming known as the standard teacher performance assessment tool (Pugach & Peck, 2016). In addition to its status as the TPA standard, the edTPA is also commonly being used as a de facto gatekeeper to the teaching profession in many states (Ledwell & Oyler, 2016).

Grade Point Average

Predictor of Success

Several research studies have explored the way standardized tests, performance assessments, and GPA are used to predict student success in teacher preparation programs. The most common of these predictors, GPA, is consistently used by colleges and universities to determine program admittance, continuance, and completion of the program (Evans, Kelly, Baldwin, & Arnold, 2016). In their commonly cited seminal study on GPA, Quirk, Weinberg, and Witten (1973), used GPA scores to predict success on early national teaching exams. That initial research paved the way for scores of researchers to further delve into the predictive relationship between GPA and program completion and performance assessments.

One study found 715 effect sizes from 123 separate GPA research projects over ten years (D'Agostina & Powers, 2009). The conclusion of that combined study found that GPA was a modest predictor of teaching competence, but performance assessments were significantly better at predicting teaching skill (D'Agostina & Powers, 2009). Likewise, Kirchner, Evans, and Norman (2010) discovered a significant relationship between GPA and pre-service teachers'

performance on a screening tool used by various school districts to identify qualified candidates. While both GPA and standardized tests, such as the Praxis and Praxis 2 have been used as measures of teacher candidate success, GPA has consistently been used to predict pre-service teachers' success on teacher performance assessments (Kirchner, Evans, & Norman, 2010). More recent studies have explored the relationship between overall GPA, academic discipline (major) and performance on Pearson's edTPA. Findings from these studies have shown positive predictive relationships between GPA and successful completion of edTPA Task 1 and 3 scores (Evans, Kelly, Baldwin, & Arnold, 2016).

Cooperating Teacher Feedback

Fieldwork and practicum experiences constitute some of the most vital and informative parts of any teacher preparation program. Beginning as early as the freshman year of college, most education majors are required to begin spending time observing and working in real classrooms with cooperating teachers. The practice of pre-service teacher coaching was somewhat limited in the 1980's and 1990's, but as federal legislation aimed at strengthening the quality of teacher preparation becoming more prevalent in the late 1990's, most teacher preparation programs began implementing mentor-focused, feedback driven experiences for education students (Denton & Hasbrouck, 2009). These practicum experiences serve a variety of functions and are considered to be a crucial element of professional teacher development (Fives, Hamman, & Olivarez, 2007). Fieldwork and practicum experiences offer students opportunities to reflect on their own teaching skills and obtain valuable skills vicariously by observing and serving under knowledgeable mentor teachers who can relate practical skills to the theoretical knowledge in university coursework (Flores, 2015).

In a study of cooperating teacher preparation, Becker et al (2019) explored the depth to which cooperating teachers were prepared by university personnel to provide meaningful and constructive feedback to fieldwork and practicum students. The study revealed that many fieldwork students expected their cooperating teachers to provide instructional and emotional support within the practicum experience (Davis & Fantozzi, 2016) and further reinforces the positive effects of fieldwork and practicum coaching that been demonstrated in multiple research studies (Kraft, Blazar, & Hogan, 2018). This instructional support from cooperating teachers is important for the development of professional knowledge and teaching skills necessary for success in the classroom and includes assistance with lesson planning, instruction-related feedback and advice and other diagnostic assistance (Todorova, Sunder, Steffensky, & Möller, 2017). According to Hudson (2016), the lack of time needed to develop and strengthen these relationships often proves to be problematic in establishing effective feedback and learning support. However, research does support the implementation of cooperating teacher training on how to implement pre-lesson conferences and post-instruction feedback to fieldwork and practicum students (Becker, Waldis, & Staub, 2019; Hudson, 2016).

Pearson's "Educative" Teacher Performance Assessment

As more and more states incorporate performance-based assessments in their path to teacher licensure, one particular assessment is riding this wave of popularity (AACTE, 2020). The edTPA is a performance-based assessment used by teacher preparation programs to equip teacher candidates with the skills and supports needed for success in their classrooms (Pearson Education, Inc., 2020). As of 2019, the edTPA is used in over 860 teacher preparation programs in over 40 states and the District of Columbia (Bae, 2020, AACTE, 2020). During the student teaching portion of their education program, teacher candidates prepare a portfolio of materials

to demonstrate their readiness to teach. Designed to be used as a formative assessment of the candidate's learning and a summative assessment of the candidate's readiness to teach (Bae, 2020), the edTPA portfolio includes detailed lessons plans, video segments of the candidate teaching, and assessment tools used by the student teacher to assess learning (Pearson Education, Inc., 2020).

In addition to lesson plans, video segments, and assessment tools, all three portions of the edTPA include extensive reflective written commentary on the student teacher's planning, instruction, and assessment (Pearson Education, Inc., 2020). All these elements, or tasks, are compiled into a portfolio that is submitted electronically to Pearson for scoring. Some research has found that the time-consuming nature of completing the required edTPA tasks can be troubling for many teacher candidates and college faculty (Hildebrandt & Swanson, 2019). The significant amount of planning and work involved in completing the edTPA during student teaching has prompted some to question the value of the assessment. Since the edTPA is just one of many requirements during student teaching, there are many educators who feel the extra time, effort, and energy the edTPA demands of teacher candidates may not be worth the value of assessment (Bae, 2020). Nevertheless, the use of the edTPA has grown and has had significant influence on instruction in teacher preparation programs.

Criticism of the edTPA

Despite the time-consuming nature of the edTPA, it continues to rise in acceptance among teacher preparation programs and states as a prerequisite for licensure. However, time-consumption is not the only criticism of the assessment. For example, there are some in higher education who are resistant to a nationalized standard assessment for teacher licensure, because they feel it drives teacher preparation programs to teach to the edTPA, rather than customizing

education to the needs of their students (Pugach & Peck, 2016). Another criticism stems from the element of external control over teacher candidates that the edTPA seems to exert outside the purview of teacher education programs (Hildebrandt & Swanson, 2019). The performance aspect of the edTPA changes what it means to teach, requiring outside work and tasks that cause student teachers to spend less time and attention with struggling students who need remediation, and more time crafting a "perfect" lesson (Powell & Parkes, 2020). Other critics of the edTPA suggest that it handicaps teacher candidates by requiring them to perform the assessment during the student teaching placement, where the student teacher is subject to external restrictions from the cooperating teacher and the cooperating school (Hébert, 2019). Another issue with the edTPA is the pressure that student teachers face with compliance and standardization, as well as the high-stakes requirement for licensure (Paugh, Bethke-Wendell, Power, & Gilbert, 2017). Despite these criticisms, edTPA implementation continues to grow.

One final criticism of the edTPA concerns the utilization of different assessment rubrics for general education teachers and special education teachers. Some argue that constructing these assessment barriers between different teaching majors is actually hindering the acceptance of special education students into general education classroom (Pugach & Peck, 2016). As it is a relatively new assessment, there is not abundant research about success or predictive ability of the edTPA on teacher performance in the classroom (Clayton, 2019), but there is growing research on the limitations of the edTPA's overall effectiveness.

Even with the numerous criticisms of the assessment, research suggests that the edTPA may still be useful as a predictor of successful workforce entry for preservice teachers (Cohen, et al., 2020, Bastian, et al., 2016). Successful edTPA completers tend to have far higher hiring rates than non-completers in states that utilize the edTPA for licensure. It is also being used as

screening mechanism for school districts to weed out candidates who may not be successful in the classroom (Goldhaber, Cowan, & Theobald, 2017). Other significant research is being conducted on the edTPA's effect on teacher candidate performance, teacher candidate instruction, and teacher preparation programs themselves.

Effect on Instruction

Criticism of the edTPA has not altered the utilization of the assessment in educational instruction. Research suggests that implementation of the assessment has had significant influence on the instruction of teacher candidates from their preparation programs (Kissau, Hart, & Algozzine, 2019). Some teacher preparation program graduates who have completed the edTPA have expressed strong objections to the use of the assessment (Heil & Berg, 2017), while others assert that preparation for the edTPA had a positive effect on their teacher preparation. Many programs are emphasizing instruction of how children learn individually and collectively, as well as how teachers influence individual student learning (Huston, 2016). One significant way the edTPA accomplishes this goal is by requiring student teachers to answer specific questions about their students, using descriptive narrative and reflection on observed behaviors. In addition to general demographic information (age, gender, race, etc.), factors that may influence learning include intellectual disabilities, socioeconomic status, or other IEP-related issues (Huston, 2016).

The edTPA is also shaping the way education students are taught to write reflectively (Langeberg, 2019). To alleviate some of the stress and anxiety associated with the extensive commentaries required in the edTPA, educational instruction is being focused not only on pedagogy, but also on writing reflective feedback about practice experiences and understanding of learning differences (Langeberg, 2019). Instruction is being reshaped to interrelate complex

teaching skills with observation and reflection through class discussion or even written critiques (Lopez, 2016). Finally, as college faculty are becoming more attuned to the detailed writing components of the edTPA commentaries, they are retooling their instruction to model reflective feedback in comments in student work (Heil & Berg, 2017).

Teacher Preparation

Not surprisingly, as educator preparation programs are adapting their instruction to meet the demands of edTPA preparedness, institutions are also rethinking their approach to cooperating teachers, or mentor teachers (Williams-Chizhik, Williams-Chizhik, Close, & Gallego, 2017). Educator preparation programs are also examining co-teaching and team-teaching models within the student teaching placement, as opposed to traditional cooperating teacher models (Williams-Chizhik, Williams-Chizhik, Close, & Gallego, 2017). They are also listening to the voices of alumni about how the edTPA affected their student teaching experience (Clayton, 2019). These collaborative approaches promote greater understanding of student learning and effective instruction, as the candidates see modeling from multiple cooperating teachers, and even other teacher candidates (Williams-Chizhik, Williams-Chizhik, Close, & Gallego, 2017). Three significant effects the edTPA has had on teacher preparation are developments in student teacher preparation, university supervisor preparation, and cooperating teacher preparation.

Student Teacher Preparation

Due to the high-stakes nature of the edTPA as a test for individual state-licensure (Kissau, Hart, & Algozzine, 2019), it is important that policymakers and educational institutions consider the assessment's limitations (Clayton, 2019) and internal biases. For example, some statistically significant findings suggest that teacher candidates of color may not be as aware of

or fully prepared for the difficulty of completing many of the edTPA requirements as are their white peers (Williams, Hart, & Algozzine, 2019), demonstrating inherent racial bias within the structure of the edTPA. As school districts aim to increase their diversity of faculty, use of the edTPA has come under scrutiny by some minority groups who claim that the assessment gives an unfair advantage to white teacher candidates (Williams, Hart, & Algozzine, 2019).

Also, there is general consensus that the edTPA does improve the quality of preservice instruction during student teaching through the rigorous planning and detailed reflection that is required (Goldhaber, Cowan, & Theobald, 2017). However, other studies suggest that the stress of a high-stakes licensure requirement during student teaching may automatically handicap teacher candidates by placing unnecessary stress on them during an already stressful student teaching experience (Clayton, 2019). Much of this additional stress develops as student teachers enter the semester with pre-conceived ideas about the edTPA. These sentiments come from alumni who have previously completed the assessment or from other online resources that tend to be critical of the assessment. Often these sources relate anecdotal criticisms of negative personal experiences with the edTPA or personal opinions about the lack of research-based evidence of edTPA effectiveness (Heil & Berg, 2017). Some of these negative perceptions include feelings of detachment from cooperating teacher, and even abandonment from University faculty.

Another ominous idea that influences teacher candidates is the timeframe for required edTPA completion (Heil & Berg, 2017). Many student teachers start planning their edTPA lessons from the first day of their semester. Rather than focusing on observation of quality teaching technique by their mentor teacher, student teachers spend time scouring curriculum for lessons that would fit nicely within an edTPA video lesson. The time spent evaluating their

lessons and creating self-reflective feedback can have positive effects on their overall performance (Goldhaber, Cowan, & Theobald, 2017). However, many student teachers spend so much time obsessing over the details and requirements needed to pass the edTPA that they miss some of the value that comes from observing their expert mentor teachers and from taking part in other teaching-related activities (Heil & Berg, 2017). Because passing the edTPA is required for licensure, student teachers often neglect the other significant portions of the student teaching (Kissau, Hart, & Algozzine, 2019).

University Supervisor Preparation

Despite the day-to-day role that cooperating teachers play in the development of student teachers, the university supervisor is also a critical connection for the student teacher between the teacher preparation program and the clinical experience in the classroom (Kolman, 2018). What student teachers experience in their college or university training is likely what transforms into their knowledge of teaching, intermingling with their insights of current teaching practices and even use of technology (Rasyidah, Triana, & Saukah, 2020). Many universities and preparation programs are restructuring university supervisor responsibilities to allow them more time to observe and collaborate with cooperating teachers (Ibrahim, 2013). In research about post-observation conferences, Soslau (2015) contends that university supervisors should use targeted questioning of student teachers to elicit more self-reflective feedback, rather than simply focusing on the technical aspects of the lesson observed. Student teachers experience more aligned expectations and receive more reliable and consistent feedback when university supervisors and cooperating teachers work together to observe the student teacher, then dialog as a group to share findings and make suggestions (Mtika, Robson, & Fitzpatrick, 2014).

Cooperating Teacher Preparation

Finally, instruction to cooperating teachers is also undergoing a rapid revision as the edTPA shapes so much of the student teaching experience. While some states require cooperating teachers to undergo some training or PDP coursework, there has not been much consistency or regulation across higher education. However, implementation of the edTPA in many states has prompted teacher preparation programs to address the long-standing problem of cooperating teacher unpreparedness (Lafferty, 2018). For example, rather than just encouraging their student teachers to model what they observe, cooperating teachers are being encouraged to help student teachers set strategic goals for their instruction and implement strategies that meet those goals (Lafferty, 2018). To facilitate this type of mentoring experience, universities or school districts should provide training for cooperating teachers to work together with university supervisors on best practices for training, mentoring, and evaluating their student teachers (Tsai & H, 2019).

In light of the heavy reflection components built into the edTPA, cooperating teachers are also being instructed on the use of effective feedback to foster growth in their student teachers (Kissau, Hart, & Algozzine, 2019). Teacher preparation programs are seeing rising demand for additional cooperating teacher training in the use of feedback and modeling. Undergraduate college courses are being revised to incorporate content on utilizing cooperating teacher feedback by turning the comments into actionable practices in the classroom (Bondie, 2016). This type of personalized instruction at teacher preparation programs is another way colleges and universities are adjusting their focus to accommodate for edTPA use (Lafferty, 2018).

Summary

The use of high-stakes testing is growing in many state teacher license programs (Hébert, 2019). Because teacher preparation programs seek to provide the training and support needed for teacher candidates to succeed on these high-stakes tests, researchers have explored factors that contribute to student teacher success. Based on theoretical frameworks of self-efficacy, cognition, self-regulation, and crucial reflection, much of the research on student teacher success focuses on performance assessments. One of the most prolific high-stakes licensure assessments being used in schools and universities today is Pearson's edTPA (AACTE, 2020). As use of the edTPA grows, researchers are beginning to explore specific factors and traits of student teachers who do well on the edTPA during their student teaching experience (Paugh, Bethke-Wendell, Power, & Gilbert, 2017). Additionally, recent literature demonstrates a direct connection between taking the practice edTPA and achieving success on the real edTPA.

Because the edTPA relies heavily on reflective commentary, it has become widely understood that student teachers who write well tend to achieve higher scores and higher first-time pass rates than student teachers who do not write well. This distinguishing factor drives much of how colleges and universities prepare future teachers for the edTPA. However, little is known about the other experiences in teacher preparation programs that may also contribute to success on the edTPA. A gap exists in the literature pertaining to the significance of self-reflective feedback and faculty feedback on edTPA success. Further literature gaps exist in research regarding the time candidates spend preparing for the edTPA and the time and resources that teacher preparation programs spend restructuring programs and training faculty on the edTPA. As edTPA use becomes more prominent in teacher licensure, this study is vital to help identify ways teacher preparation programs and college faculty can help teacher candidates and

their cooperating teachers prepare for the edTPA (Williams-Chizhik, Williams-Chizhik, Close, & Gallego, 2017).

CHAPTER THREE: METHODS

Overview

The purpose of this study is to understand factors that may predict success on a student teacher's performance of Pearson's edTPA. The study explores the predictive relationship of cumulative grade point average, cooperating teacher fieldwork assessment rating scores, and practice teacher performance assessment scores on final rubric scores of the Analysis of Student Learning tasks on the real edTPA completed during student teaching. This chapter includes a description of the design, research questions, and hypothesis of the study. Chapter three also includes information about the participants and setting, instrumentation, and procedures.

Design

This study uses a quantitative, non-experimental, predictive correlational research design with multiple linear regression analysis to investigate factors that may influence the outcome of overall student teacher performance on the edTPA. The edTPA is a summative teacher performance assessment administered by Pearson, Inc. during the student teaching experience. Using a portfolio of collected student work, the edTPA measures pre-service teacher readiness in planning, delivery, and assessment of instruction. Specifically, the study examines the predictive relationship between a student's cumulative grade point average at the beginning of student teaching, cooperating teacher assessment scores during a preservice fieldwork, and practice teacher performance assessment scores completed during a preservice fieldwork experience on the Analysis of Student Learning portion on the actual edTPA.

The first of the three predictor variables, GPA, is a measurement of academic achievement. Undergraduates with high GPA's consistently receive high scores on the edTPA (Cash, Putman, Polly, & Byker, 2019; AACTE, 2015). The second predictor variable is

cooperating teacher performance scores from preservice fieldwork experiences. These scores, completed during a sophomore-year fieldwork experience, measure pre-service teachers' ability to reflect on their own teaching and implement strategies to improve, based on those reflections. There is limited research on the quality of cooperating teacher feedback and ratings of pre-service teachers, but the studies that do exist demonstrate the value of cooperating teacher feedback during one-on-one conferences and in written evaluations (Becker, Waldis, & Staub, 2019). In-depth verbal and written feedback from cooperating teachers in real classroom situations supports pre-service teachers' understanding of how to support student learning and develop and implement lessons during instruction (Gibbons & Cobb, 2016).

Finally, the third predictor variable, Analysis of Learning Scores from teacher performance assessments, measures candidates' readiness to teach and inform teaching program development (Cash, Putman, Polly, & Byker, 2019). The criterion variable is the successful completion of an actual teacher performance assessment during the student teaching experience. This is measured by using final scores from Pearson's edTPA. The comparison of the predictor and criterion variables is examined to determine if any of the three predictor variables can predict success on the criterion variable.

Research Question(s)

The specific research question addressed in this study is:

RQ1: How accurately can performance on Pearson's edTPA be predicted from the linear combination of grade point average, cooperating teacher assessment scores, and practice teacher performance assessment scores?

Hypotheses

The null hypothesis for this study is:

$H_0$1: There is no significant prediction of performance on Pearson's edTPA by cumulative grade point average, cooperating teacher assessment scores, and practice teacher performance assessment scores.

Participants and Setting

The researcher is the Director of Field Experiences within the School of Education at a Midwestern liberal arts university that utilizes a practice teacher performance assessment during a junior year practicum experience and has implemented the edTPA during student teaching. Since 2014, the edTPA has been used by over 950 teacher preparation programs with many teacher preparation programs implementing practice versions directly into their curriculum or fieldwork experiences (Darling-Hammond & Hyler, 2013; AACTE, 2020). The sample population from the university in this study utilizes a similar practice version of the real edTPA. Data will be collected from institutional records of graduates from the program. The university is a private college with an undergraduate population of approximately 500 on-campus students and approximately 600 online students. The school of education hosts approximately 150 students annually.

Table 1

Current Setting Demographic Information

Fall 2019 Enrollment Groups	Number
Main Campus Undergraduates	470
Online Undergraduates	264
Other	26
Total	760

Table 2

Current Setting Residential Student Body

Classification	Gender	Residency
22% Freshman	41.5% Male	42.6% On Campus
27% Sophomores	58.5% Female	57.4% Off Campus
26% Juniors		
23% Seniors		
2% Guest		

The number of participants sampled is 73, which exceeds the required minimum of 66 for a medium effect size with a statistical power of .7 at the .05 alpha level (Gall, Gall, & Borg, 2007). The sample comes from four cohorts of education graduates, including students from both the fall and spring semester of each year. The study was made up 58 female participants and 15 male participants. The sample includes 18 early childhood education majors, 19 elementary education majors, 11 English education majors, 6 Social Studies/History education majors, 5

music education majors, 3 physical education majors, 8 math education majors, and 3 science education majors. Between the fall semester of 2016 to the spring of 2020, participants for this study are drawn from a sample of 73 education degree program graduates who completed a practice teacher performance assessment during their junior year of college and completed the real edTPA during their student teaching experience.

Table 3

Sample Population by Gender

Cohort Year	Male	Female	Total
2016	5	5	10
2017	3	18	19
2018	4	22	26
2019	3	12	15
2020	0	3	3

Table 4

Sample Population by Academic Discipline

Academic Discipline	2016	2017	2018	2019	2020
Early Childhood Education	01	09	05	02	01
Elementary Education	03	04	06	06	00
English Education	01	04	04	01	01
Mathematics Education	02	02	02	02	00
Social Studies/History Education	02	01	01	01	01
Science Education	00	01	00	02	00
Physical Education	01	00	01	01	00
Music Education	00	00	05	00	00

Table 5

Current Sample Grade Point Average Calculation Information

Semester	Hours	Grades	Quality Pts. per grade	Quality Points
1	12.0	A	4.0	48
2	30.0	A	4.0	120.0
3	40.0	A	4.0	160.0
4	4.0	A	4.0	16.0
5	21.0	B	3.0	63.0
6	16.0	B	3.0	48.0
7	2.0	B	3.0	6.0
8	16.0	C	2.0	32.0

According to the participating university's teacher education website, the institution offers nine undergraduate initial teacher licensure programs: Early Childhood Education, Elementary Education, English Education, Math Education, Music Education, Physical Education and Health, Science Education, Social Studies Education, and Special Education. The school of education also offers a Master of Arts in teaching that can also lead to state licensure in Elementary Education, Science Education, Social Studies Education, and English Education. Finally, the education department offers a variety of additional pathways to licensure for candidates who hold bachelor's degrees in non-teaching fields. The Higher Learning Commission and the state's Department of Public Instruction accredit each of the university's

teacher licensure programs. The university's website lists 13 education faculty members, bringing the current student-teacher ratio to 11:1.

The university's school of education accreditation history document reports that the department began preparing for implementation of the edTPA in 2014 when the state's legislature voted to require passage of the edTPA for initial teacher licensure. As early as 2010, colleges and universities began developing and implementing practice teacher performance assessments into their programs (Caughlan & Jiang, 2014). Other Midwestern teacher preparation programs either created practice tests of their own, or heavily embedded practice TPA tasks within coursework in their undergraduate programs (Warner, Bell, McHatton, & Atiles, 2020). During the first year of the edTPA's implementation, the participating university's education faculty developed and implemented a practice edTPA (mini edTPA) for students to complete during the junior year practicum experience. In the fall of 2015, student teachers were required to complete the edTPA during the student teaching semester. However, a passing score of 38 was not required for licensure until August of 2016.

Instrumentation

Grade Point Average

Quantitative variables such as undergraduate GPA have been consistently used to assess continuing success and predict future success in a variety of academic programs. For example, pharmacy schools routinely use GPA to predict on-time graduation or dismissal and success on national pharmacy tests such as the NAPLEX (Spivey, Chisholm-Burns, & Johnson, 2020). Nursing schools also use early undergraduate grades and GPA to predict program completion and overall outcomes (Al-Alawi, Oliver, & Donaldson, 2020). Finally, early universtity grades in education programs are also used to predict subsequent university grades and program or

licensure completion (Respondek, Suefert, Hamm, & Nett, 2020). While not the only predictor of and individual's success in an academic program, GPA is consistently used to predict future post-baccalaureate success.

Practice Teacher Performance Assessment

The practice teacher performance assessment used by the participating university requires students to complete 9 of the 15 required edTPA rubrics during a junior practicum classroom placement. To provide an authentic edTPA experience, this practice version of the edTPA utilizes the exact same rubrics and methods of delivery and scoring as the real edTPA. Students complete all three edTPA tasks: planning, instruction, and assessment (AACTE, 2020). However, in the practice edTPA, students are required to complete only three of the five rubrics in each task. Some of the participating university's education faculty underwent Pearson's Scorer Training to learn how to score the edTPA rubrics. Those faculty members then passed that training on to the rest of the faculty members before implementation. Faculty member scorers are trained using sample edTPA scores and the edTPA rubric progressions (Pearson Education, Inc., 2020). As of this date, the practice edTPA has not been altered in any way from its original creation. New education faculty members are paired with veteran teachers to learn how to score the practice edTPA. Once students complete their practice edTPA within their Junior Practicum fieldwork, they submit their tasks to an assigned faculty scorer. The practice edTPA is then scored and returned to students electronically. Like Pearson evaluators, faculty evaluators assign a numerical score, from 1 to 5 for each of the 9 mini edTPA rubrics. However, unlike Pearson evaluators, university faculty evaluators are also encouraged to provide written descriptive feedback of what the students did well, and what may need further development on their real edTPA rubrics. This feedback is based on faculty expertise in the academic discipline as well as

the detailed edTPA rubric scoring progressions (AACTE, 2020). Both the practice and real edTPA assessments are scored in the same way with the same criterion. Practice teacher performance assessment scores and final edTPA scores are reported as the average (mean) score, ranging from 15-75, on a completed portfolio, scored on all five rubrics within the three major edTPA tasks: planning, instrument, and assessment (AACTE, 2020).

edTPA Assessment

As local and state school districts responded to federal calls for heightened accountability in education in the 1990s, institutions of higher education responded by looking for ways to strengthen teacher preparation (Potter, 2020). Stanford University partnered with the Learning Policy Institute, to nationalize the PACT (Performance Assessment for California Teachers) by merging the Stanford Center for Assessment, Learning, and Equity (SCALE) with the American Association of Colleges for Teacher Education (AACTE) (Parkes & Powell, 2015). From this merger, the for-profit corporation Pearson was enlisted to facilitate and distribute the test that has become known as the edTPA (Parkes, 2019). The edTPA is a standardized teacher performance assessment conducted during student teaching to assess teacher candidate preparedness, pedagogy, and content knowledge, and is used by more than 950 colleges and universities in over 40 states and the District of Columbia (AACTE, 2017; Parkes & Powell, 2015). The subject-specific, performance-based assessment uses evidence collected by the teacher candidate in a portfolio that is submitted to Pearson (AACTE, 2020).

The edTPA assesses three areas of teacher performance: planning instruction and assessment, instructing and engaging students in learning, and assessment of student learning. The three areas, or learning segments, typically consist of three to five lessons in a singular unit. For Task 1 (planning), candidates submit contextual information about the students, school,

learning types, and community. Candidates also submit detailed lesson plans and corresponding assessments (Paugh, Bethke-Wendell, Power, & Gilbert, 2017; Pearson Education, Inc., 2020). For Task 2 (instruction), teacher candidates record and submit two ten-minute video clips of their instruction as well as more detailed written commentary about their delivery of the instruction (Pearson Education, Inc., 2020). Finally, in Task 3 (assessment), the candidates provide samples of student work (tests, quizzes, etc.) and commentary about how the student work is used to assess instruction and plan for future instruction (Pearson Education, Inc., 2020). See details of edTPA tasks in Tables 6-17 below.

Table 6

EdTPA Task 1 (Early Childhood)

Planning for Instruction
Rubric 1 – Planning for the Whole Child
Rubric 2 – Planning to Support Varied Learning Needs
Rubric 3 – Using Knowledge of Children to Inform Teaching and Learning
Rubric 4 – Identifying and Supporting Vocabulary Development
Rubric 5 – Planning Assessments to Monitor and Support Children's Learning

Table 7

EdTPA Task 2 (Early Childhood)

Instructing and Engaging Students in Learning
Rubric 6 – Learning Environment
Rubric 7 – Engaging Children in Learning
Rubric 8 – Deepening Children's Learning
Rubric 9 – Subject-Specific Pedagogy
Rubric 10 – Analyzing Teaching Effectiveness

Table 8

EdTPA Task 3 (Early Childhood)

Assessing Student Learning
Rubric 11 – Analysis of Children's Learning
Rubric 12 – Providing Feedback to Guide Learning
Rubric 13 – Children's Understanding and Use of Feedback
Rubric 14 – Analyzing Children's Vocabulary Development
Rubric 15 – Using Assessment to Inform Instruction

Table 9

EdTPA Task 1 (English Language Arts)

Planning for Instruction
Rubric 1 – Planning for English Language Arts Understanding
Rubric 2 – Planning to Support Varied Student Learning Needs
Rubric 3 – Using Knowledge of Students to Inform Teaching and Learning
Rubric 4 – Identifying and Supporting Language Demands
Rubric 5 – Planning Assessments to Monitor and Support Student Learning

Table 10

EdTPA Task 2 (English Language Arts)

Instructing and Engaging Students in Learning
Rubric 6 – Learning Environment
Rubric 7 – Engaging Students in Learning
Rubric 8 – Deepening Student Learning
Rubric 9 – Subject-Specific Pedagogy
Rubric 10 – Analyzing Teaching Effectiveness

Table 11

EdTPA Task 3 (English Language Arts)

Assessing Student Learning
Rubric 11 – Analysis of Student Learning
Rubric 12 – Providing Feedback to Guide Learning
Rubric 13 – Student Understanding and Use of Feedback
Rubric 14 – Analyzing Students' Language Use and English Language Arts Learning
Rubric 15 – Using Assessment to Inform Instruction

Table 12

EdTPA Task 1 (Secondary Math)

Planning for Instruction
Rubric 1 – Planning for the Mathematical Understanding
Rubric 2 – Planning to Support Varied Student Learning Needs
Rubric 3 – Using Knowledge of Students to Inform Teaching and Learning
Rubric 4 – Identifying and Supporting Language Demands
Rubric 5 – Planning Assessments to Monitor and Support Student Learning

Table 13

EdTPA Task 2 (Secondary Math)

Instructing and Engaging Students in Learning
Rubric 6 – Learning Environment
Rubric 7 – Engaging Students in Learning
Rubric 8 – Deepening Student Learning
Rubric 9 – Subject-Specific Pedagogy
Rubric 10 – Analyzing Teaching Effectiveness

Table 14

EdTPA Task 3 (Secondary Math)

Assessing Student Learning
Rubric 11 – Analysis of Student Learning
Rubric 12 – Providing Feedback to Guide Learning
Rubric 13 – Student Understanding and Use of Feedback
Rubric 14 – Analyzing Students' Language Use and Mathematics Learning
Rubric 15 – Using Assessment to Inform Instruction

Table 15

EdTPA Task 1 (K-12 Performing Arts)

Planning for Instruction
Rubric 1 – Planning for Developing Student Knowledge and Skills in the Performing Arts
Rubric 2 – Planning to Support Varied Student Learning Needs
Rubric 3 – Using Knowledge of Students to Inform Teaching and Learning
Rubric 4 – Identifying and Supporting Language Demands
Rubric 5 – Planning Assessments to Monitor and Support Student Learning

Table 16

EdTPA Task 2 (K-12 Performing Arts)

Instructing and Engaging Students in Learning
Rubric 6 – Learning Environment
Rubric 7 – Engaging Students in Learning
Rubric 8 – Deepening Student Learning
Rubric 9 – Subject-Specific Pedagogy
Rubric 10 – Analyzing Teaching Effectiveness

Table 17

EdTPA Task 3 (K-12 Performing Arts)

Assessing Student Learning
Rubric 11 – Analysis of Student Learning
Rubric 12 – Providing Feedback to Guide Learning
Rubric 13 – Student Understanding and Use of Feedback
Rubric 14 – Analyzing Students' Language Use and Performance Arts Learning
Rubric 15 – Using Assessment to Inform Instruction

Once the portfolios are submitted to Pearson, they are scored by a trained scorer. According to Pearson, edTPA scorers must meet the following minimum experience qualifications: 1) Must be a current or retired higher education faculty, field supervisor, teacher preparation program administrator, or other higher education teacher with specific PK-12 classroom teaching experience, extensive professional development, and at least a bachelor's degree; and 2) Must work, or have worked with teacher candidates within the past five years in a teaching role, supervising field experiences, or leading edTPA implementation (Pearson, 2020). Trained edTPA scorers are asked to spend two to three hours evaluating the portfolios, using fifteen analytic rubrics, for which they are paid $75 per completed portfolio. Scorers have no direct knowledge of the teacher candidates or their classrooms and thus have no contextual understanding of the instruction or classroom setting (Dover & Schultz, 2015). Rubrics are scored from a low score of 1 (novice not ready to teach) to a high score of 5 (highly accomplished beginner). (Parkes & Powell, 2015; Pearson Education, Inc., 2020; AACTE, 2017). Candidates receive no written feedback from the scorers, nor do they receive rationale for

their score or suggestions for improvement (Parkes & Powell, 2015; Kissau, Hart, & Algozzine, 2019).

The edTPA has been used in numerous research studies about overall teacher preparation program effectiveness (Brown, 2018; Cash, Putman, Polly, & Byker, 2019; Hébert, 2019; Kissau, Hart, & Algozzine, 2019; Paugh, Bethke-Wendell, Power, & Gilbert, 2017) as well as studies examining student perspectives on student teacher preparedness (Clayton, 2019; Heil & Berg, 2017; Paine, Beal-Alvarez, & Sheetz, 2016; Williams, Hart, & Algozzine, 2019). There have also been a few studies on the edTPA's predictive reliability for teacher success in the classroom (Goldhaber, Cowan, & Theobald, 2017; Huston, 2016).

A research study conducted at the University of North Carolina at Charlotte demonstrates the association between GPA, practice performance tasks, and final edTPA performance scores (Cash, Putman, Polly, & Byker, 2019). This research relates to the current study as both examine the relationship between practice edTPA commentary scores and real edTPA commentary scores. Conclusions from that study are used to identify which students benefit most from additional support during their program as well as which program supports have the strongest associations with final edTPA scores. (Cash, Putman, Polly, & Byker, 2019).

Another research project combines two separate studies on pre-service teacher prepation for the edTPA (Brown, 2018). The first portion of this study explores teacher candidates' perceptions of their edTPA preparation based on supports they received during instruction. The second portion considers the actual scores those teacher candidates received on the edTPA. Findings demonstrate that teacher candidates who had utilized additional supports felt prepared for the edTPA, and most of those candidates successfully passed the edTPA (Brown, 2018). This

research is relevant to the current study, as both examine pre-student teaching preparation for the edTPA.

Procedures

Prior to collecting any data, the researcher will submit the necessary application to the Liberty University Institutional Review Board (IRB) and receive approval. See Appendix A for IRB approval. Once IRB approval from Liberty University is received, the researcher will submit the necessary application from the participating university to the request the archival data from the university's Director of Institutional Research and Effectiveness. See Appendix B for this IRB approval. The researcher will run a query from the school's online database to retrieve mini edTPA scores for all 2014-2019 School of Education graduates, including demographic data, academic major, mini edTPA rubric scores, and final edTPA rubric scores. The school database demographic information is gathered from student teaching applications detailing name, age, birth date, ethnicity, and gender. The researcher will then access the school's online database to access participant GPA scores and Sophomore Fieldwork Cooperating Teacher ratings. See Appendix D for a sample rating form. GPA data and cooperating teacher ratings will then be added to the practice and real edTPA scores in an Excel spreadsheet. Any data from students that does not include GPA records, Sophomore Fieldwork Cooperating Teacher ratings, mini edTPA rating scores, and real scores from Pearson's edTPA will be eliminated from the batch.

Before the researcher adds the data into a useable Excel spreadsheet file, all valid participant samples will be assigned a numerical number that will connect all participants with their data in the spreadsheet. The researcher will then strip the spreadsheet of any individual identifying information such as student names. The researcher will keep the data stored and secured in a locked home office, accessible only to the researcher. The researcher will use the

Statistical Package for the Social Sciences (SPSS Version 27.0) software program to conduct the statistical analysis.

Data Analysis

Before the statistical analysis is completed, the researcher will remove from the dataset the student records that do not meet the minimum passing score for the edTPA on the first attempt. Second and third attempts will not be counted in this study. The IBM Statistical Package for the Social Science software (SPSS Version 27.0) will be used to perform data analysis and will include analysis of statistical significance among all variables identified in this study. Multiple regression is the optimal choice for analysis when working with two or more predictor variables and one criterion variable (Gall et al., 2007; Warner, 2013). The final edTPA scores will be used as the criterion variable, while cumulative GPA, cooperating teacher ratings, and practice TPA scores will provide the input for each categorical predictor variable. The predictor variables will be reclassified to continuous variables by utilizing appropriate and recommended methods for dummy coding categorical variables (Warner R, 2013). Predictive studies require the ratio of N to k to be "substantial" for regression analysis to have believable results (Green, 1991). Green (1991) recommends a minimum of $N > 104 + k$, with N representing the total size and k representing the number of individual predictor variables, thus requiring a sample size of N = 000 for the current study. For this study, the number of participants sampled will be 73, which meets the minimum number of participants required in a study to achieve a medium effect size with statistical power of 0.7 at the 0.5 alpha level (Gall et al., 2007, Warner, 2013). The generated model includes the coefficient of determination (R 2) which provides an explanation of how well the model explains overall parent satisfaction. The overall regression test statistic, F, which includes the three predictor variables, was tested for significance at the $p < .05$ level by

indexing the effect size for the overall regression model by R, R 2 , and adjusted R 2. The level of significance used to test the hypothesis will be $p < 0.05$, as it is the accepted threshold for significance in educational research (Warner, 2013). The null hypothesis will be rejected at the 95% confidence level.

Using SPSS 27.0, descriptive statistics will be calculated for the following variables: cumulative grade point average at the beginning of the student teaching semester, cooperating teacher rating scores on reflective learning from sophomore fieldwork experiences, university administered practice TPA commentary scores, and Pearson's edTPA commentary scores from four cohorts of education graduates. Included in the descriptive statistics is the frequency count for each variable. A correlational study will then be conducted to determine if a there is a significant prediction of success on Pearson's edTPA by cumulative grade point average, cooperating teacher assessment rating scores, and practice teacher performance assessment scores.

Correlational analysis is an appropriate choice to analyze the practice score data, because practice and real edTPA scores are naturally occurring variables (Gall, Gall, & Borg, 2007; Green & Salkind, 2017). Data screening will be conducted on the predictor and criterion variables for data inconsistencies, outliers, and normality in keeping with procedures recommended by Warner (2013). The screening will include examining histograms of data sets for normality of distribution, creating boxplots to test for extreme outliers, conducting Levene's testing for homogeneity of variances, and creating boxplots to test for linearity (Warner R. , 2013).

Assumption testing for multiple regression analysis includes the assumption of linearity and homogeneity of variance (homoscedasticity), normality of residuals, assumption of

independent residuals, test of non-multicollinearity among predictor variables, and the assumption of multivariate normal distribution (Gall et al., 2007; Warner, 2013). Scatterplots and boxplots will be used to test for linearity and homogeneity of variance. The normality of residuals will be visually assessed through the creation of a normal probability plot. Finally, an inspection of scatter plots will be used to check for linear conformation to visually confirm normal multivariate distribution in the cumulative sample of variables (Gall, Gall, & Borg, 2007).

CHAPTER FOUR: FINDINGS

Overview

The purpose of this study was to utilize a quantitative correlation research design to determine how accurately pre-student teaching experiences can predict success on Pearson's edTPA. A multiple regression analysis was conducted to explore the relationship between cumulative GPA, cooperating teacher feedback scores, and practice teacher performance assessment scores (predictor variables), and Pearson's edTPA (criterion variable). This chapter includes the investigation of the research question and the results of the multiple regression analysis.

Research Question(s)

The specific research question addressed in this study was:

RQ1: How accurately can performance on Pearson's edTPA be predicted from the linear combination of grade point average, cooperating teacher assessment scores, and practice teacher performance assessment scores?

Hypotheses

The null hypothesis for this study was:

$H_0$1: There is no significant prediction of performance on Pearson's edTPA by cumulative grade point average, cooperating teacher assessment scores, and practice teacher performance assessment scores.

Descriptive Statistics

This study explored the predictive relationship between GPA, cooperating teacher feedback scores, practice teacher performance assessment scores and performance on Pearson's

edTPA. The criterion variable in the study was performance scores on Pearson's edTPA completed during student teaching, and the predictor variables were GPA at the beginning of the student teaching semester, cooperating teacher feedback scores from a sophomore year fieldwork experience, and scores from a practice teacher performance assessment completed during a junior year fieldwork experience. Data was initially collected from 73 participants who had completed the teacher education program. These 73 participants also completed sophomore fieldwork, received cooperating teacher feedback, received a practice edTPA score during a junior practicum experience, and completed Pearson's edTPA during student teaching. However, despite having received overall sophomore fieldwork

cooperating teacher feedback scores, 13 of the participants were missing the one specific score from the feedback concerning critical reflection that was examined as a predictor variable in this study and thus had to be removed from the data set (see Table 18). Data from the remaining participants (N=60) who had scores for all four variables were included in the study.

Table 18

Participants Removed from Data Set

Participant Number	Cohort Year	Missing CT Scores
55	2016	1
8	2017	1
13	2017	1
62	2017	1
63	2017	1
21	2018	1
22	2018	1
25	2018	1
28	2018	1
41	2018	1
66	2018	1
49	2019	1
54	2019	1
Totals		13

Pearson's edTPA scores (M = 42.20, SD = 5.44) indicated that a majority of the participants successfully completed Pearson's edTPA with a passing score of at least 38. Of the 60 participants, 49 received a score of 38 or higher. The remaining 11 participants did not pass the edTPA, receiving scores of 37 or lower.

Grade point values (M = 3.44, SD = 0.40) indicated that a majority of the participants had a cumulative GPA above a 3.36, which Valdes (2021) reports is a common average GPA for education majors across the nation. The sample university uses a four-point grading scale to determine grade point average. See Table 19 for average GPA by cohort year.

Table 19

Sample University Average GPA by Cohort Year

Cohort Year	Average GPA
2016	3.45
2017	3.41
2018	3.37
2019	3.57
2020	3.49

Cooperating teacher feedback scores (M = 4.12, SD = .865) indicate that a majority of the participants received an average score of at least 4 out of 5 on ability to critically reflect on teaching during a sophomore fieldwork teaching experience. Practice teacher performance assessments scores (M = 28.72, SD = 6.07) indicate during a junior practicum fieldwork experience, a majority of students scored at least a 24 out of 45, with the mean score at 29. See Table 20 for descriptive statistics.

Table 20

Descriptive Statistics for Criterion Variable and Predictor Variables

	N	Min	Max	Mean	SD
GPA	60	2.50	4.00	3.44	0.40
CT Scores	60	3	5	4.12	0.87
Practice TPA	60	17	43	28.72	6.07
Pearson's edTPA	60	28	58	42.20	5.44

Results

Data Screening

Before beginning the analysis, the researcher screened the data for inconsistencies and extreme outliers. Thirteen participants had incomplete data in one or more variables. The data calculated in the analysis included only participants who had Pearson's edTPA scores and scores for all three predictor variables. Therefore, 13 scores were removed from the original 73 participant scores.

To address the assumption of no bivariate outliers, a scatterplot matrix was created to identify inconsistencies or outliers that may have a disproportionately large impact on the analysis (Warner, 2013). Scatterplots were created among all the predictor variables and the criterion variable (see Figure 1). No extreme outliers were identified, holding the assumption of no bivariate outliers tenable.

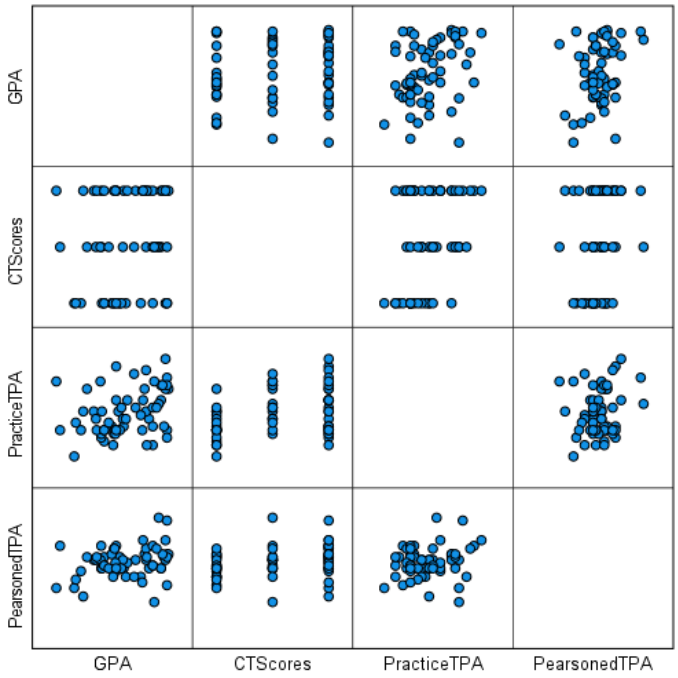

Figure 1. Scatterplot Matrix of GPA, CT Scores, Practice TPA Scores, and Pearson's edTPA Scores

Assumption Tests

The scatterplot matrix was also examined to address the assumption of multivariate normal distribution. Upon inspecting the scatterplot matrix and the shape of the data, no extreme outliers were identified. Each of the 12 scatter plots indicated that the points in each set were clustered around the mean value (see Figure 1). Therefore, the assumption of a normal distribution of data between the criterion variable and each of the predictor variables was held tenable.

The assumption of non-multicollinearity was tested to ensure that the predictor variables were not highly correlated with each other. To address this assumption, Variance Inflation Factor (VIF) and Tolerance values were examined (see Table 21). Each of the Tolerance values

scored in the upper range between 0 and 1, and the range of VIF values were between 1.18 and 1.24. These findings indicate that there is a low degree of intercorrelation among the predictor values, and the assumption of non-multicollinearity was held tenable.

Table 21

Collinearity Statistics

Model	Tolerance	VIF
GPA	.895	1.117
CT Scores	.874	1.144
Practice TPA	.804	1.244

Null Hypothesis

To test the null hypothesis, a multiple regression was conducted to evaluate the predictive relationship between cumulative GPA, cooperating teacher feedback scores, practice teacher performance assessment scores (predictor variables) and performance on Pearson's edTPA (criterion variable). The correlation between the criterion variable (Pearson's edTPA scores) and the linear combination of predictor variables (GPA, cooperating teacher feedback scores, and practice teacher performance assessment scores) was statistically significant, $F(3, 56) = 2.87$, $p < .05$ (See Table 22). Due to the result of a statistically significant relationship, the null hypothesis was rejected. The effect size was measured as $R^2 = .13$, indicating a large effect size (Warner, 2013). This value suggests that approximately 13% of the variability in the regression model can be accounted for by the linear combination of predictor variables (see Table 23) as the predictor variables (GPA, cooperating teacher feedback scores, and practice teacher performance assessment scores) are added to the mean model of Pearson's edTPA scores.

Table 22

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	232.544	3	77.515	2.873	.044[b]
	Residual	1511.056	56	26.983		
	Total	1743.600	59			

a. Dependent Variable: Pearson edTPA

b. Predictors: (Constant), Practice TPA, GPA, CT Scores

Table 23

Model Summary[b]

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate
1	.365[a]	.133	.087	5.195

a. Predictors: (Constant), Practice TPA, GPA, CT Scores

Pursuant to the finding of a statistically significant model, the slope coefficients of each predictor variable were examined. Among the three predictor variables, none were found to have a statistically significant effect on the criterion variable when examined individually (see Table 24). The predictor variable of GPA was closest to being statistically significant $T(56) = 1.879$, $p = .065$. Neither of the other predictor variables, cooperating teacher feedback scores or practice teacher performance assessment scores held a statistically significant relationship. As a result, none of the predictor variables by themselves was a predictor of success on Pearson's edTPA.

Table 24

Coefficients[a]

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
(Constant)	24.273	6.336		3.831	.000
GPA	3.357	1.786	.247	1.879	.065
CT Scores	1.285	.836	.205	1.537	.130
Practice TPA	.038	.124	.043	.309	.759

a. Dependent Variable: Pearson edTPA

CHAPTER FIVE: CONCLUSIONS

Overview

This study examined the relationship between cumulative GPA, cooperating teacher feedback scores, practice teacher performance assessment scores (predictor variables), and performance on Pearson's edTPA (criterion variable). The study utilized archival data from the participating university's School of Education records to explore the relationship between the predictor and criterion variables. This chapter includes a discussion of the findings from the data analysis. In addition, this chapter contains a discussion about the implications of the study, limitations to the study, and suggestions for future research.

Discussion

As cries to reform the American educational system have been consistently repeated over the last several decades, so too have been the criticisms of teacher preparation programs to successfully prepare teacher candidates to teach in 21st century classrooms (Banks, Jackson, & Harper, 2014). In response to that criticism, administrators and reformers in higher education have focused on improving teacher education programs with hopes of sharpening classroom pedagogy in teacher candidates while also boosting student improvement. This task has grown increasingly more challenging as technology has dramatically altered the way pre-service teacher candidates receive and process information. With online instruction increasing in popularity, many teacher candidates are attending courses virtually or non-synchronously. Teacher candidates are also doing much more writing in discussion board forums and other electronic formats (Paine, Beal-Alvarez, & Sheetz, 2016), intended to supplement, or even replace, face-to-face conversations and interactions in classroom (Champion & Gunnlaugson, 2018). To accommodate for this lack of face-to-face instruction, teacher education programs and state

licensing officials have had to look for new ways to assess preparedness to teach. One such means of evaluation are portfolio-based teacher performance assessments, such as Pearson's edTPA, which studies have shown to demonstrate positive learning outcomes for pre-service teacher candidates as a measure of their ability to teach (Hamilton, 2020). Rather than simply submitting lesson plans, teaching a lesson to a peer group in a pedagogy class, and meeting with a professor for a critique session, Pearson's edTPA requires candidates to explain in detail their rationale for each section of their lesson plan. Candidates are also required to analyze their teaching from two submitted video clips and thoroughly explain how they will assess student learning from the lessons (Pearson Education, Inc., 2020).

The purpose of this study was to utilize a quantitative correlation research design to determine if cumulative GPA, cooperating teacher feedback scores, or practice teacher performance assessment scores can predict performance on Pearson's edTPA. This study aimed to determine if any of the three predictor variables were a statistically significant predictor of success on the edTPA.

Research Question

The research question asked whether performance on Pearson's edTPA could be predicted from the linear combination of grade point average, cooperating teacher assessment ratings, and practice teacher performance assessment scores. Findings from the analysis indicated the three predictor variables as a whole demonstrated a statistically significant model for predicting performance on the edTPA. None of the three predictor variables individually were found to have a statistically significant relationship to edTPA performance.

These findings relate to similar research in several ways. In this study, GPA was found to have the strongest, albeit non-significant, relationship to the criterion variable at $T(56) = 1.879$,

p = .065. The results were consistent with other studies that show GPA to often be a predictor of success (Evans, Kelly, Baldwin, & Arnold, 2016). Gouraige (2016) found that gender, socioeconomic status, financial aid status, race, and GPA were all significant contributor to success on the edTPA. The current study also suggests to be true what other previous studies have concluded about GPA, that while pedagogical assessments were the best predictors of overall success in teacher preparation, GPA can be a modest predictor of teaching competence and performance on teacher performance assessments (Quirk, Weinberg, & Witten, 1973; D'Agostina & Powers, 2009; Kirchner, Evans, & Norman, 2010).

Studies showing the relationship between GPA and edTPA performance appear to reflect Bandura's Self-efficacy theory which states that individuals who believe in their capability to succeed at a task or goal are more likely to try harder and are often more successful (Bandura, 1994; Phan, 2016; Watson & Marschall, 2019; Yost, 2006). The application of what students know and the skills they are developing are strongly influenced by self-efficacy (Bandura, 1994; Wilson & Narayan, 2016). Students who are confident in their abilities to succeed at a given task are more likely to work harder at completing that task and less likely to give up after an initial failure (Webb-Williams, 2018). Students demonstrating high self-efficacy derived from GPA and other academic successes are likely to have enhanced academic achievement, while those with low self-efficacy tend to believe they will be unable to perform successfully (Phan, 2016). Self-efficacy and past performance, as demonstrated by factors such as GPA, appear to be important predictors of success (Wilson & Narayan, 2016).

As reported in the previous chapter, the other two predictor variables (cooperating teacher feedback scores and practice teacher performance assessment scores) were not shown to have a statistically significant effect on edTPA performance. Current literature suggests

cooperating teacher feedback is a helpful tool that can be used to sharpen pre-service teacher skills, and the findings of the current study are consistent with the findings of those other studies. For example, Whitley, Park, Warner, and Horne (2019) explored the effect of cooperating teacher feedback on student teaching performance and found that positive feedback had a significant impact on student teacher performance. Conversely, negative feedback from cooperating teachers resulted in pre-service teacher inefficacy and poor performance in fieldwork and practicum experiences (Whitley, Park, Warner, & Horne, 2019). Despite the potential benefits of positive cooperating teacher feedback on student performance, the lack of time needed to develop and strengthen the relationship between a cooperating teacher and fieldwork student in short-term practicum experiences hinders the establishment of effective feedback and learning support that would aid in preparation for teacher performance assessments (Hudson, 2016). Other research studies support implementing cooperating teacher training on how to incorporate pre-lesson conferences and post-instruction feedback to practicum students (Becker, Waldis, & Staub, 2019; Hudson, 2016). As Zimmerman's (1990) self-regulation theory suggests, the use of written and instructor-driven feedback is a valuable tool to help future teachers learn from their behaviors and strengthen their teaching skills (Brown, Peterson, & Yao, 2016; Van Laer & Elen, 2017).

The third predictor variable, practice teacher performance assessments has been shown in some studies to provide necessary skills and knowledge development for pre-service teachers in teacher preparation programs (Cash, Putman, Polly, & Byker, 2019) as well as provide much-needed self-efficacy development (LaBelle, 2017). Phan (2016) suggests that positive learning experiences which incorporate learning activities in authentic contexts and are designed to utilize mastery in performance can greatly reinforce self-efficacy. Studies examining the value of

feedback from coopeerating teachers conclude that overall TPA scores are higher for participants who receive feedback during the TPA process (Whitley, Park, Warner, & Horne, 2019).

Just as teacher preparation programs have difficulty finding student teaching mentors who have the time to effectively mentor student teachers in teaching performance, there is also a struggle to find pre-student teaching fieldwork placements with cooperating teachers who are capable of mentoring college students (Coogle, Ottley, Storie, Rahn, & Kurowski-Burt, 2020). The lack of self-reflection during pre-student teaching experiences deprives teacher candidates of the opportunity to examine past teaching experiences to influence future teaching experiences as defined in Smyth's (1989) Critical Reflection Theory as well as Bandura's (1989) Social Cognition Theory.

Given opportunites to assess their own teaching performance, such as in fieldwork and practicum experiences, pre-servcie teachers develop consistent skills of self-assessment across tasks and over short periods of time (Ross, 2006). Conversely, those students who are not given ample fieldwork and practicum opportunities before student teaching, or those who are not given the opportunity to actually teach and self-reflect in those fieldwork experiences, lose the social cognition skills of analyzing performance for further improvement (Bandura & Cervone, 1986; Eun, 2019). Social cognition does involve learning from textbooks and other teaching sources, but when pre-service teachers analyze their own teaching performances, good or bad, those students can build on their existing knowledge base while producing new knowledge and skills (Regmi, 2020; Nathan, Eilam, & Kim, 2007).

Within the classroom setting, Smyth (1989) asserts that critical reflection is also a vital skill that helps individuals examine and reflect on past and future actions. Fieldwork, practicum, and student teaching experiences are all eseesntial for pre-service teachers to practicing these

critical reflection skills, further underscoring the importance of real classroom observation and participation in the teaching process (LaBelle, 2017). Practicing in real classrooms with actual students enables pre-service teachers to sharpen self-reflection abilities and develop teacher identity (Kazeni & McNaught, 2020; Walkington, 2010). Frick, Carl, and Beets (2010) emphasize the importance of learing the skill of critical self-reflection during the early fieldwork and practicum experiences because it is a vital skill needed when teachers enter classrooms after student teaching (Ajani, 2019).

Implications

This is the time for higher education administrators and teacher education personnel to develop a more robust understanding of teacher performance assessments, such as the edTPA, which are being used in over 860 teacher preparation programs in over 40 states and the District of Columbia as a pathway to teacher licensure (Hildebrandt & Swanson, 2019; AACTE, 2020; Bae, 2020). Due to the edTPA's relatively new status as a widely used teacher performance assessment, there is limited data on prior research. However, there have been a few studies to show that GPA can be a significant predictor of success on early teacher performance assessments as well as succes on Pearson's edTPA (D'Agostina & Powers, 2009; Gouraige, 2016). In light of the small sample size in this study, there was not a great variety in GPA among the participants. The implications for teacher preparation programs and educators should be to focus on edTPA preparation support for students with lower GPA's. Identifying students with lower GPA's and providing them with additional support early in their education programs may reduce the number of times students may increase success on the edTPA assessment.

Further gleaned from this study is that high scores on cooperating teacher feedback assessments in early fieldwork experiences do not necessarily predict successful performance on

the edTPA. When possible, fieldwork and practicum experiences should be expanded or lengthened to give pre-service teachers additional experiences in the classroom before student teaching (La Paro, Lippard, Fusaro, & Cook, 2020). While Pearson's edTPA is not primarily an academic test, but rather, a combination of academic understanding, teaching performance, and assessment of instruction (Pearson, 2020), the activities of lesson planning, instructing, and assessment of instruction are valuable practice for the non-academic aspects of the edTPA process.

The effective use of mentoring opportunities early in a teacher preparation program can be a valuable tool in developing critical thinking and reflection skills necessary to effective teaching (Becker, Waldis, & Staub, 2019). Additionally, the edTPA requires students to complete three lengthy narrative reflections on their planning, instruction, and assessment (Pearson Education, Inc., 2020). The implications for teacher preparation programs and educators should be to strengthen cooperating teacher training for fieldwork, practicum, and student teacher placements. The focus of that training should be modeling effective critical reflection and analysis of previous teaching experiences in ways that will improve performance on the edTPA as well as other future teaching experiences (Kazeni & McNaught, 2020).

Finally, despite the lack of a statistically significant relationship between practice teacher performance assessments and edTPA performance, there are still important lessons to be garnered from this research. Practice teacher performance assessments completed before the student teaching experience provide teacher candidates opportunites to practice self-assessment, critical self-reflection, and post instruction analysis of teaching (Kissau, Hart, & Algozzine, 2019). The implications for teacher preparation programs should be to develop and strengthen undergraduate coursework that incorporates content on turning self-analysis of teaching into

improved practices in the classroom (Bondie, 2016). While educators always want to be on guard against 'teaching to the test' in their classrooms, by developing stronger practice performance assessments within current coursework, teacher candidates will have greater opportunities to learn from their mistakes and improve their future instruction.

Cumulative GPA (Quirk, Weinberg, & Witten, 1973; Evans, Kelly, Baldwin, & Arnold, 2016; Kirchner, Evans, & Norman, 2010), cooperating teacher feedback scores (Becker, Waldis, & Staub, 2019; Fives, Hamman, & Olivarez, 2007; Flores, 2015; Denton & Hasbrouck, 2009), and practice teacher performance assessment scores (Cash, Putman, Polly, & Byker, 2019; Goldhaber, 2018; Wilson, 2014) have all been examined to determine their effect on successful performance on Pearson's edTPA as well as other teacher performance assessments. In this study, no statistically significant effects were suggested by any of these predictor variables on edTPA performance. However, this research does contribute to the knowledge base on teacher performance assessments in two important ways. First, this study adds to existing literature on the effect of GPA on student teacher performance. Despite its rise in use, the edTPA is still not a heavily vetted gauge of teacher success (Clayton, 2019; Powell & Parkes, 2020; Pugach & Peck, 2016), and this study helps close that gap by contributing to the literature in this area.

Second, the limited research on teacher performance assessments, such as the edTPA has focused primarily on factors external to teacher preparation programs themselves, such as gender, race, and socioeconomic status (Gouraige, 2016; Bastian, Henry, Pan, & Lys, 2016; Brown, 2018; Cash, Putman, Polly, & Byker, 2019). With the exception of GPA, this study focuses on predictor variables derived from assessments within the teacher preparation program: cooperating teacher feedback scores and practice teacher performance assessment scores. This

study helps close the gap of literature about contributing factors to successful performance of Pearson's edTPA.

Limitations

There were several threats to external validity to be addressed in this study, as articulated by Campbell and Stanley (1963) for all quasi-experimental research. First, this study was limited by history. In the spring of the 2019-20 school year, the COVID-19 pandemic forced businesses and virtually all schools in most of the country to adopt an online or virtual model. Student teachers in the Spring 2020 semester, unable to provide in-person instruction, could not complete the edTPA during student teaching, a circumstance which eliminated several participants from inclusion in the study. Further compounding the historical limitation was the state of Wisconsin's move to drop the edTPA as a requirement for state teacher licensure, thus eliminating all chance for those last participants to receive an edTPA score. In the initial plans for this study, there were to be an additional 17 participants from the 2019-2020 cohort. However, due to the COVID pandemic, only three participants were able to complete the edTPA during the 2019-2020 school year. Had the pandemic not been a factor, there would have been a total of 77 participants with all four variables, which would have exceeded the required minimum of 66 for a medium effect size with a statistical power of .7 at the .05 alpha level (Gall, Gall, & Borg, 2007). When it became apparent that no additional edTPA data would be forthcoming, the researcher consulted with his committee about how to proceed. Despite not having a minimum of 66 final participants which would have met the minimum number of participants required to achieve a medium effect size with statistical power of 0.7 at the 0.5 alpha level (Gall et al., 2007, Warner, 2013), the committee approved continuing with the study. Incidentally, the final results of the study achieved a high effect size with only 60 participants having complete data.

The second limitation was that of mortality. Several of the participants that were sampled completed Pearson's edTPA during student teaching and were considered completers within their program of study. However, in the course of analyzing their academic records, many were found to be lacking one or more of the predictor variables, such as the cooperating teacher feedback scores. This situation could also be considered an instrumentational threat to external validity (Campbell & Stanley, 1963).

A lack of racial diversity among the participants presented a third limitation for this study. The population sample university is 88% white, which does not necessarily reflect the general population of edTPA participants across the country. A more diverse sampling may have produced different results and strengthened the external validity of the study.

Fourth, the findings of this study were limited in their generalization due to the population sample. Participating students attended a small, conservative, Baptist university located in southeast Wisconsin. Therefore, the results may not necessarily apply to students with different demographic, geographic, or religious affiliations. They may also differ from students attending secular colleges with very different curricula. This threat to external validity must be weighed alongside any conclusions.

Finally, a threat to internal validity was the selection threat that occurred due to the non-random nature of the sampling design. It is always possible that non-random sampling will create groups that do not accurately represent the population (Gall, Gall, & Borg, 2007). Due to the small number of faculty assessors of the practice teacher performance assessments, many of the participants would have been assessed by the same faculty members.

Recommendations for Future Research

After reviewing the findings of this study which examined the predictive relationship between cumulative GPA, cooperating teacher feedback scores, and practice teacher performance assessment scores (predictor variables), and performance on Pearson's edTPA (criterion variable), future studies of the edTPA should consider the following recommendations:

1. Sample larger and more diverse student populations to ensure more valid findings. As use of the edTPA has grown over the last several years, data has become more available for future studies.
2. Explore a greater variety of academic disciplines in order to strengthen the findings of academic discipline on edTPA performance.
3. Use a standardized assessment that is required of the entire sample, such as ACT scores as a control variable, to strengthen the findings of academic ability on edTPA performance.
4. Conduct additional research to explore the impact of university supervisor and cooperating teacher training on participant edTPA performance.
5. Include a different variety of predictor variables, such as Praxis scores, student teaching grade level, and pre-student teaching fieldwork placements to investigate the validity of the edTPA.
6. Investigate cooperating teacher experiences during their own student teaching and their perceptions of how those experiences compared to the amount of work required in completing the edTPA.
7. Investigate the psycho-social effects of fieldwork and practicum experiences on teacher self-efficacy using Bandura's Teacher Self-Efficacy Scale.

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APPENDIX A

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

May 18, 2021

Robert Lazzell
Philip Alsup

Re: IRB Exemption - IRB-FY20-21-887 The Predictive Relationship Between GPA, Cooperating Teacher Assessment Ratings, and Practice Teacher Performance Assessments Upon Successful Completion of a Summative Teacher Performance Assessment

Dear Robert Lazzell, Philip Alsup:

The Liberty University Institutional Review Board (IRB) has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under the following exemption category, which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:104(d):

(4) Secondary research for which consent is not required: Secondary research uses of identifiable private information or identifiable biospecimens, if . . . the following criteria is met:
(ii) Information, which may include information about biospecimens, is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained directly or through identifiers linked to the subjects, the investigator does not contact the subjects, and the investigator will not re-identify subjects;

Please note that this exemption only applies to your current research application, and any modifications to your protocol must be reported to the Liberty University IRB for verification of continued exemption status. You may report these changes by completing a modification submission through your Cayuse IRB account.

If you have any questions about this exemption or need assistance in determining whether possible modifications to your protocol would change your exemption status, please email us at irb@liberty.edu.

Sincerely,

G. Michele Baker, MA, CIP
Administrative Chair of Institutional Research
Research Ethics Office

APPENDIX B

MARANATHA BAPTIST UNIVERSITY

Student: Robert Lazzell
Research # 251

Institutional Review Board Action:

_____ Project is exempt from IRB review under category _____Exemption holds for 5 years.

_____ Project is exempt from IRB review under category _____ *provided minor modifications are completed*. Exemption holds for 5 years.

__X__ Project is approved through expedited review under category __3.1__.

_____ Project is approved through expedited review under category_____ *provided minor modifications are completed*.

_____ Project is approved through the full board review process; date of meeting:

_____ Additional information is requested. Please see attached instructions and resubmit.

_____ Project is not approved at this time.

_____ Project does not include human participants training.

_____ Project is not defined as research.

Signature: _____ February 8, 2021
Institutional Review Board Chair or Designee — Date

745 West Main Street
Watertown, WI 53094
920.261.9300