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The Value of Early Field Experiences in Teacher Preparation

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Education in Adult and Lifelong Learning

by

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Abstract

This study examines the relationship between a preservice teacher's early field experiences and ratings given by their cooperating teachers during student teaching. Educator preparation programs have long been tasked with providing quality education to future teachers as they prepare them for a career in the P-12 classroom. Part of this preparation happens in P-12 classroom settings, where preservice teachers observe and interact with students and professional teachers. These early field experiences, which help prepare them for student teaching and the P-12 classroom, are required for teacher preparation program accreditation. This research investigates how changes in the educational environment related to the Covid-19 pandemic closure of schools have created opportunities to assess the effectiveness of early field experiences. The study seeks to address a need for evidence of the early field experiences' impact on preparation for student teaching and eventual success as a practicing teacher. Evidence of this impact is vital for teacher preparation programs as they evaluate how effective their current requirements are in the program of study for future teachers. Data collected and analyzed by multiple linear regression will provide empirical evidence addressing the relationship between a preservice teacher's early field experiences and their professional indicator ratings given by their cooperating teacher during student teaching in order to guide teacher preparation program decisions.

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*This is a three-chapter preregistered dissertation proposal. Upon request of my committee, it is written in past tense in preparation for data gathering and publication.

Dedication

I dedicate this effort to my family. First, to my parents who always treated me like I could and my sisters and brothers who always said I could. They encouraged, pushed, laughed, and distracted, as needed. Next, to my daughters, who always knew I could. They gave up their time to see this done and always did their best to tiptoe around the house when I needed to concentrate a little harder. And most importantly, to my wife, who was always with me when I wasn't sure I could. Tana, you have been my rock and you have made this worth it. Your faith held me up and your love kept me pushing through.

Table of Contents

Chapter 1: Introduction 1
Background of Study 2
Need and Purpose 4
Definitions 6
Preservice Teacher 6
Field Experience 7
Early Field Experience 7
Student Teaching 7
Field Experience Inventory 8
University Supervisor 8
Cooperating Teacher 8
Council for the Accreditation of Educator Preparation 8
Research Problem 9
Scope and Limitations 9
Summary 10
Chapter 2: Literature Review 12
Conceptual Framework 13
Teacher Education and Preparation 14
Program Evaluation and Accreditation 16
Early Field Experiences 17
Preservice Teacher Preparation, Assessment, and Readiness 20
Early Field Experiences' Effect on Readiness and Preparation 23
Conclusions 24
Theoretical Framework 25
Hypotheses 26
Research Question 1 27
Hypothesis 1a 27
Hypothesis 1b 27
Hypothesis 1c 28
Research Question 2 28
Hypothesis 2a 28

Hypothesis 2b 29
Hypothesis 2c 29
Summary 29
Chapter 3: Methodology 31
Research Questions and Hypotheses 32
RQ1 32
RQ2 32
Methods 33
Study Design 33
Study Setting 34
Participants and Placement 35
Materials 35
Measures 37
Dependent Variables 37
Independent Variables 38
Control Variables 39
Data Collection 40
Data Analysis 41
Multiple Regression 41
Hierarchical Modeling 42
ANOVA and Planned Contrast 42
Software 43
Models 43
Internal and External Validity 44
Summary 45
References 47
Appendix A 53
Appendix B 57
Appendix C 58

Chapter 1: Introduction

Field experiences have become an integral part of undergraduate teacher preparation offering preservice teachers opportunities to observe and engage with students and teachers outside of the collegiate classroom. While the inclusion of field experiences has become the norm, they have not always had a place in teacher preparation as, prior to the early 20th century, most teachers' first true experience in front of a classroom was after they had been hired as a teacher (Schneider, 2011). As teacher preparation changed its practice and added the student teaching field experience for most preservice teachers, continued research supported the success of student teaching and it was expanded to allow additional time in the elementary and secondary classroom as early field experiences (Bieda et al., 2017; Darling-Hammond, 2006; Darling-Hammond & Bransford, 2007). In the current model of teacher preparation programs, field experiences provide occasions to practice methods and concepts and apply theories learned in college coursework in a setting similar to where the preservice teacher will, eventually, teach in the future.

This study examined the relationship between a preservice teacher's early field experiences and professional assessments of their success during student teaching. This research investigated how changes in the educational environment related to the Covid-19 pandemic closure of schools have created opportunities to assess the effectiveness of early field experiences. This chapter introduces the concepts of the study related to field experiences for preservice teachers and discusses their background. The questions guiding this study are also presented in this chapter, as well as its need and purpose. The chapter concludes with the proposed study's scope and limitations.

Background of Study

Students across the United States are pursuing teacher education degrees in varied, but similar, formats, with the goal to one day teach in pre-kindergarten through grade 12 (P-12) classrooms. For the 2018-19 academic year, before the Covid-19 pandemic, over 560,000 preservice teachers (PTs) were enrolled in over 2,300 teacher education programs (American Association of Colleges for Teacher Education, 2022). Of these PTs, 83,946 bachelor degrees were conferred, down from the all-time high of 176,307 in 1970-71 (National Center for Education Statistics, 2020). Also known as teacher candidates or preprofessional teachers, PTs are postsecondary students working to complete the requirements set forth by state and national entities for teacher licensure (IGI Global, 2021).

The Council for the Accreditation of Educator Preparation (CAEP) is the main evaluator of teacher preparation programs (TPPs) as they work to meet national accreditation requirements. Accredited TPPs are charged with providing quality educator preparation through continuous improvement, quality assurance, credibility, equity, strong foundation, and innovation (Council for the Accreditation of Educator Preparation [CAEP], 2020a). As part of this charge, CAEP Standard II, requires participating programs to form partnerships with P-12 schools in order to provide field, or clinical, experiences for PTs (CAEP, 2020a). Field experiences are required hours a PT spends in the P-12 classroom, either as a student teacher in the professional semester or prior to student teaching in early field experiences (EFEs). However, while CAEP requires field experiences, it does not specify the format or number of hours PTs must complete in order to fulfill the requirements.

For TPPs, EFEs are an integral element in teacher preparation (Bieda et al., 2017), and should be “grounded in clinical practice and interwoven with academic content and professional

courses" (National Council for Accreditation of Teacher Education, 2010, p. ii). Time in a P-12 classroom for future teachers has been considered a valuable staple of traditional education programs for decades (Darling-Hammond, 2006; Goodman, 1985; Mtika et al., 2014). However, Zeichner (2010) stated those most involved in the supervision of preservice educators are not as involved in the university components and vice versa, creating a "disconnect between the campus and school-based components of programs" (p. 89). Questions of quality, quantity, delivery and reasoning for field experiences embedded in teacher preparation programs are still being answered.

At Pittsburg State University (PSU), the specific requirements for all university TPPs is set by the University's Education Curriculum Council comprised of faculty from all education-related programs under the leadership of the Office of Teacher Education (OTE). While individual programs have some autonomy in choosing field experience requirements for their PTs, all have two required EFEs supervised and tracked by the OTE: 33 hours during Explorations in Education and 10 hours during Overview of Special Education. Other optional common experiences include 30 hours during clinicals and 20-200 hours in internships. As this Council regularly re-evaluates the field experience portion of the curriculum, a continuing conversation is the number of required hours PTs spend in the P-12 classroom. Proponents of increasing the number of hours argue that more hours will better prepare PTs for teaching as a professional, while those who want no changes, or possibly even less hours, contend content courses are more valuable and there is not enough room in the 120 credit-hour program of study for another required course with an attached EFE. No consensus for a change in required EFE hours has been found yet as there is little quantitative evidence to support one.

The Covid-19 pandemic, starting in the spring semester of 2020, caused the closure, almost worldwide, of classrooms, both P-12 and postsecondary (Almonacid-Fierro et al., 2021). During this semester, many schools were no longer open to visitors, PTs, and, even, students and staff. Learning, for many schools, was moved to a virtual environment for a period of time until individual schools started reopening. These closures created a unique experience for many PTs with the suspension of their required EFEs. At PSU, over the course of the next few semesters after the pandemic closure, up until spring 2022, P-12 classrooms were slowly opened for preservice teachers to continue field experiences. First, student teachers were allowed to return to schools in fall semester 2020. Upper division internship course EFEs were allowed next, starting in spring semester 2021, and other upper division course EFEs were continued over the next few semesters. As of spring semester 2022, required EFEs for some courses, such as Explorations in Education and Overview of Special Education, were still not open. Starting in the fall semester of 2020 and continuing until fall semester 2024, possibly longer, student teachers in these semesters have a high likelihood of completing coursework without completing all EFE requirements. These missing foundational experiences may provide researchers opportunities to examine whether EFEs foster stronger professional teaching traits for PTs during the professional semester. For this research, the problem has been identified as the degree to which there is limited clear empirical data linking the impact of early field experiences with effective preparation of preservice teachers for student teaching.

Need and Purpose

This study sought to address a need for evidence of the impact EFEs have on preparation for student teaching and eventual success as a practicing teacher. Evidence of this impact is important for TPPs as they evaluate how effective their current requirements are in the program

of study for future teachers. Accrediting bodies, such as CAEP, require programs to demonstrate how field experiences support this preparation. Many TPPs use rating forms, such as PSU's Field Experience Inventory (FEI), completed by both P-12 cooperating teachers and university supervisors, to assess the students in various categories such as Learner and Learning, Content, Instructional Practice, and Professional Responsibility (See Appendix A). Universities are allowed autonomy in how they address CAEP Standard II, but Zeichner (2010) and Ronfeldt (2012) have stated that programs must examine how and where field experiences happen, in order to provide PTs with the most effective path of becoming a teacher. The suspension of EFEs due to the Covid-19 pandemic shutdown has now created a group of student teachers who have missed typically required EFEs. Preservice teachers need to know whether the education they are receiving is best preparing them for their future classrooms. The Covid-19 pandemic closures are timely for allowing the gathering of data to examine the impact of EFEs as an effective method for preparing to students to teach effectively.

The information in this study is useful to directors and coordinators of TPPs when assessing the requirements for their programs of study. Details of how many EFE hours PTs should accrue, when EFEs should occur, how they should be embedded, and related questions are dependent upon whether EFEs are effective. With the exception of the temporary suspension or transition to online formats due to Covid-19 for a few semesters, EFEs are a current requirement of most TPPs. Using multiple regression to examine the relationship of student teacher ratings and EFE hours, this study gathered and presented data examining student teachers in the range of pre-Covid 19 semesters—having all EFE hours—and Covid 19 semesters—missing EFE hours. Later studies may be able to examine student teachers in post-Covid 19

semesters who again have the full complement of EFE hours and compare them to participants in this study.

While the conversation was already happening before Covid-19 affected education, school closures have only increased the need to know if the current EFE model accredited TPPs are using to prepare future teachers is effective. The purpose of this study was to provide empirical evidence examining the relationship between a preservice teacher's early field experiences and their professional indicator ratings given by their cooperating teacher during student teaching in order to guide teacher preparation program decisions.

Definitions

The purpose of the section was to define, clarify, and provide background information for terms used in this study.

Preservice Teacher (Elementary vs Secondary) – Also referred to as education majors, preprofessional teachers, and teacher candidates, "this term is used to describe student teachers who are enrolled in a teacher preparation program and working toward teacher certification. They complete supervised field-based teaching experiences with the support and mentorship of university faculty and K-12 cooperating teachers" (IGI Global, 2021). PSU groups these into two categories, elementary and secondary. Elementary PTs seek licensure for P-6th grade and have structured requirements for coursework and field experiences with few variations. Also included in this group are K-12 licensure PTs, such as art or physical education. Secondary PTs seek licensure for 6th-12th grade and are made up of various content specific programs, such as math, English, technology, history, etc. This group has a greater variety of coursework and field experiences as each individual content program sets the program of study requirements for its majors.

Approximately 50% of preservice teachers are elementary, while the other 50% is spread out over 12 content areas, with physical education and history having the most (~5% each) and communication education and modern language education having the least (<1% each).

Field Experience – The requirement of field experiences is "based on the premise that prospective teachers should have the opportunity to work in K-12 classrooms before and/or during their professional coursework to ground their understanding of pedagogical theory with practice" (Bieda et al., 2017, p. 853). The field experiences examined in this study will consist of required hours in the P-12 classroom a PT must complete to pass coursework. These field experiences include student teaching during their final semester or EFEs which occur before student teaching.

Early Field Experience (Observation vs Engaged) –These are required times in a P-12 classroom for PT which occur before student teaching. These field experiences are divided into two types, Observation EFEs and Engaged EFEs. Observation EFEs are passive and involve little engagement by the PT in the classroom, while in Engaged EFEs, PTs work with an individual student, a group of students, or the class as a whole. During their postsecondary coursework, PTs typically progress from Observation EFEs to Engaged EFEs, although there may be some overlap or exception.

Student Teaching – Also referred to as the professional semester at PSU, student teaching is a field-based experience that spans a full semester, usually during their final semester before graduation. Student teachers are trying, applying and expanding on professional knowledge, skills, and understanding gained during initial coursework and learning new knowledge, skills, and understanding under the direction of a licensed and

experienced classroom teacher. Typically, PTs come to the professional semester having had diverse experiences in multiple classrooms and working with students in a variety of settings in preparation to be student teachers (OTE, 2021).

Field Experience Inventory (FEI) – Scoring rubric used by cooperating teachers and university supervisors to evaluate PTs during student teaching and some EFEs. It is divided into four categories, Learner and Learning, Content, Instructional Practice, and Professional Responsibility and has indicators, ranging from 1 (novice) – 4 (advanced) in each category. Prior to student teaching, the FEI is used as a formative tracking tool for the PT and not all pieces of the inventory may be filled out during every EFE. During student teaching, the PT is rated on all categories to determine if they meet minimum requirements to graduate and obtain teacher licensure.

University Supervisor – University employee tasked with supervising the PT, especially during student teaching. The supervisor visits, observes, and rates the PT on a periodic basis, usually 2-3 times per semester (Virginia Wesleyan University, 2021). While PTs in EFEs may have a supervising teacher, it is most commonly associated with student teaching.

Cooperating Teacher – A P-12 teacher who mentors a PT, especially during student teaching. The cooperating teacher works with and encourages the PT daily to assume greater responsibility in classroom management and instruction as the experience progresses (Virginia Wesleyan University, 2021). A PT in EFEs also has a cooperating teacher, however they do not spend the large number of hours them as they do a cooperating teacher does during student teaching.

Council for the Accreditation of Educator Preparation (CAEP) - CAEP is the accrediting body for 413 teacher preparation programs in 33 states (CAEP, 2021a), including

Pittsburg State University (PSU). Their mission is to advance "equity and excellence in educator preparation through evidence-based accreditation that assures quality and supports continuous improvement to strengthen P-12 student learning" (CAEP, 2020a). CAEP was formed in 2013 after the National Council of Accreditation of Teacher Education consolidated with other oversight councils.

Research Problem

To address the gap in the research examining the effectiveness of early field experiences in preparing preservice teachers, the following questions was examined:

Q1: Is there a relationship between a preservice teacher's early field experiences and their initial teaching performance rating during the student teaching experience?

Q2: Is there a relationship between a preservice teacher's early field experiences and their growth in teaching performance ratings during the student teaching experience?

Scope and Limitations

This study examined data on all preservice teacher candidates who participated in student teaching between fall semester 2017 and spring semester 2022 through the Office of Teacher Education at PSU. The study also examined the number of hours spent in required EFEs for their programs in relationship to their professional indicator ratings provided by their cooperating teacher during the student teaching experience.

There were several possible limiting factors identified for this study. One limitation is the presence of experiences in the field outside of official OTE field experiences. Student teachers who have worked as para-educators, substitute teachers, coaches, and school volunteers may benefit from these experiences which are not controlled for in this study. Second, while some EFEs have moved to a virtual environment instead of being cancelled altogether, the

effectiveness of virtual experiences has not been determined, therefore virtual experiences will be considered the same as missing field experiences. A third limitation includes the differences in cooperating teacher or supervisor rating methods. Even using the same rubric, discrepancies between human raters may exist and there is no guarantee of continuity. Additionally, Covid-19 may have also changed the methods through which cooperating teachers evaluate PTs. New demands upon their time may cause teachers to spend less time considering the evaluations or, knowing the limited experience a PT has due to canceled EFEs, they may give the preservice teacher a "free" pass and not evaluate as rigorously as they may have in the past. The quality of placement in both the cooperating teacher and the school itself will inherently vary and may be another limiting factor for this study. While all placements have been vetted by the OTE at PSU, these inconsistencies may affect their ratings during the professional semester.

Summary

Education is a critical part of societies' culture and schools need effective teachers in classroom with students who will be the future workforce and leadership of the world (Chen et al., 2014; Dede 2010). Current research illustrates that the most effective programs are ones which partner with P-12 schools in order to place preservice teachers in field experiences with experienced teachers and classroom students (Darling-Hammond, 2010; Wenger et al., 2012). Currently, field experiences are a traditional requirement of teacher preparation programs, however there is a need to assess the effectiveness of these experiences.

Formal education has seen many changes during its existence. Whether it was making attendance mandatory, the enactment of new laws, or new security measures to keep students safe, not many changes were as abrupt as the school closures as a result of the Covid-19 pandemic. These closures caused many preservice teachers to not have some of the early field

experiences which have been found to have a strong impact on prospective teachers (Darling-Hammond et al., 2005). While it may be hard to separate the impact Covid-19 has had on education and society in general from results, missing EFE hours may help researchers compare success and readiness between groups of student teachers with different number of hours.

This study used empirical data to look for a relationship between early field experiences and professional indicator ratings reported for pre-service teachers during the student teaching experiences. Findings from this study may help direct teacher education programs as they design coursework and program requirements for future teachers.

Chapter 2: Literature Review

In chapter one, a lack of empirical evidence regarding the benefit of using early field experiences (EFEs) to prepare preservise teachers (PTs) for the student teaching experience was identified. In this chapter, a review of the literature is presented on how, when, and why EFEs came to be used in PT preparation. Early field experiences are a major component in teacher preparation programs (TPPs). They are used to train future teachers and the lack of EFEs may create challenges for future teachers (Darling-Hammond, 2005; Koerner et al, 2002; Mtika et al., 2014). The conceptual themes in this chapter include: teacher education and preparation, program evaluation and accreditation, early field experiences, and preservice teacher preparation, assessment, and readiness, as well as relationships between concepts. Also covered in this chapter is Experiential Learning Theory and the rationale for consideration as the theoretical framework of this study. An explanation of the six hypotheses generated from the research questions which drive this study conclude the chapter.

Multiple databases and other resources were utilized to identify sources for this review of literature. ERIC (Ebsco), access provided through the University of Arkansas, was the first database search engine used. To gain a grasp on the literature related to the main topic, search words included: *early field experiences, preservice teachers, teacher education, clinicals, student teachers, effective teachers, learning theories, and teacher preparation.* Later, Ebsco was also used to follow up on new topics found in the literature, search words included: *Covid-19, school shutdown, pandemic, Experiential Learning Theory, and teacher evaluation.* ERIC (ProQuest) and Google Scholar were also utilized to follow up in searching for studies identified in Literature Reviews and references. Other resources providing data and information for the study

included the Council for the Accreditation of Educator Preparation, National Center for Education Statistics, Pittsburg State University, and Council of Chief State School Officers.

Conceptual Framework

Darling-Hammond and Bransford (2007) had this to say about teaching in their report to the National Academy of Education Committee on Teacher Education:

> To a music lover watching a concert from the audience, it would be easy to believe that a conductor has one of the easiest jobs in the world. There he stands, waving his arms in time with the music, and the orchestra produces glorious sounds, to all appearances quite spontaneously. Hidden from the audience—especially from the musical novice—are the conductor's abilities to read and interpret all of the parts at once, to play several instruments and understand the capacities of many more, to organize and coordinate the disparate parts, to motivate and communicate with all of the orchestra members. In the same way that conducting looks like hand-waving to the uninitiated, teaching looks simple from the perspective of students who see a person talking and listening, handing out papers, and giving assignments. Invisible in both of these performances are the many kinds of knowledge, unseen plans, and backstage moves—the skunkworks, if you will, that allow a teacher to purposefully move a group of students from one set of understandings and skills to quite another over the space of many months. (p. 2)

This passage portrays a fitting description of what a teacher must do on a daily basis, even multiple times a day. However, developing the talents to do this requires extensive preparation and that may best start with a progressive, equitable education system focused on teacher quality (Fahrer, 2019).

Teacher Education and Preparation

At the turn of the 21st century, Hargreaves and Fullan (2000) laid out their timeline of three time periods that teaching as a profession and education had traversed. They also discussed the future phase teaching and education is preparing to enter. Pre-1960 was the pre-professional age, characterized by teachers mass produced in a "factory-like system" (p. 50) who taught as they had been taught, lecture being the dominate feature. Individualism in teaching started showing up in the autonomous professional age of the 1960s as teachers began to be better prepared to own their own classroom; however, extra training—i.e. professional development—to come up with new ideas was considered a burden only needed by weak teachers. The mid-1980s brought about the age of the collegial professional where a "culture of collaboration" (p. 51) began and teachers came out of the isolation of their own classrooms to work and learn new ways of teaching together. During this age, student teaching as a requirement for teacher licensure became the norm, while prior to this period, some teachers may have had a student teaching field experience as part of their education, many had not (Schneider, 2011). Finally, beginning in 2000, Hargreaves and Fullan predicted the professional age would be a time characterized by learning diversity, networking, and using science to bring reforms. They hoped for partnerships between schools and institutions, leading to deeper learning through mentorship from experienced teachers and a rejuvenation of the profession.

This hope was a timely one as educators and researchers alike have criticized the teacher education programs of the 1980s and 1990s as being too focused on theory and not enough practical experience (Darling Hammond et al, 2005). This criticism called for change and publication's like *A Nation at Risk* (Gardner, 1983) and *What Matters Most: Teaching for America's Future* (National Commission on Teaching and America's Future, 1996) were just a

few of the catalysts for reform and a new focus on the quality of new teachers (Danielson, 2001; Fahrer, 2019). New groups were forming, such as the Carnegie Task force on Teaching as a Profession, the Holmes Group, and the National Board for Professional Teaching Standards, all looking at how teaching policy could bring teaching to the next level with skilled, knowledgeable professionals completing their education and entering the classroom (Darling-Hammond, 2010; Fahrer, 2019). The needs of society and the workforce were changing, and education needed to adjust how it prepared teachers to educate students (Edwards, 2009; Dede, 2010).

Not everyone agreed teacher education needed to change. Walsh (2001), argued the requirements of TTPs were unnecessary and did not correlate substantially with progress in teacher performance. Similarly, Ballou and Podgursky (1996), believed new barriers were created in schools as programs required more professional standards from their graduates. The removal of teacher certifications was even discussed to make it easier to get teachers into schools (Darling-Hammond, 2010). These dissenters were in the minority as other research kept pointing to the need for increased teacher quality, practices, effectiveness, and education (Chen et al., 2014).

Other research from the late 1990s and early 2000s continues to reinforce the need for change. A study by McBer (2001) found the most effective skills a teacher needs to develop in their TPP are teaching skills, professional characteristics, and the ability to set up a classroom climate. Extensive clinical experiences are critical for developing professional teaching skills (Ball & Cohen, 1999) and course content is important in this development but integration between course content and field experiences is more so (Darling-Hammond, 2006). This trend continued into the 2010’s as researchers examine how teacher preparation programs should

prepare teachers (Darling-Hammond, 2010). Yilmaz (2011) said preservice teachers needed problem-based learning in authentic situations and Wenger et al. (2012) called for a consideration of strategies focused on the community for the advancement of higher education. Fahrer (2019) indicated that there was a link between teacher education and effectiveness which requires reflection on practice, alignment with standards, and practice in the field to assimilate theory in and from practice (Danielson, 2001; Koerner et al., 2002; Darling-Hammond, 2010).

This call for change culminated in "clinical curriculum" (Darling-Hammond, 2010, p. 40) where TPPs join in partnerships with P-12 schools so PTs can be observed and evaluated in the P-12 setting (Lofthouse & Wright, 2012) prior to student teaching. This call and need led to the implementation of EFEs and a way for effective programs to engage with the community of educators and better prepare the future with quality graduates (Wenger, 2012; Darling-Hammond, 2010). As these changes were implemented, accreditation agencies began to focus on a method to determine their effectiveness.

Program Evaluation and Accreditation

An emphasis on producing quality teachers requires a way to evaluate how programs are doing on this task. Darling-Hammond (2010) noted that, "unlike many other professions" teacher education programs do not have a "strong mandatory accreditation and licensing process" (p. 38). However, soon after that study was published, accrediting bodies such as the National Council for Accreditation of Teacher Education (NCATE) and the Teacher Education Accreditation Council (TEAC) joined forces and professional standards were developed to oversee this production (Fahrer, 2019). In the beginning, these councils did make some quick progress, but eventually changes were needed and new models for evaluation, using programs known for producing effective teachers, were used to allow accrediting bodies a better way to

critically look at teacher preparation programs (Darling-Hammond, 2010). In 2010, NCATE and TEAC merged to form the Council for the Accreditation of Educator Preparation (CAEP) and the current era of program evaluation processes and standards had begun (CAEP, 2020b; Lang et al., 2018).

Lang et al. (2018) addressed the various ways to assess pre-service dispositions, which includes the standards set by accrediting bodies. The Council of Chief State School Officers (2013) developed the Interstate Teacher Assessment and Support Consortium Model Core Teaching Standards (InTASC Standards) in 2013 as a resource policymakers and shareholders can use to make decisions about what "effective teaching looks like" (Fahrer, 2019, p. 25). CAEP requires accredited TPPs to demonstrate alignment with these InTASC Standards (CAEP, 2021b). InTASC Standards (see Appendix B) is made up of ten standards in four categories—Learner and Learning, Content Knowledge, Instructional Practices, Professional Responsibility—described by professional indicators of performance, knowledge, and dispositions (Fahrer, 2019). These categories outline the need of PTs to, not only, learn the skills and knowledge required to manage a classroom, but also gain the ability to reflect and improve on their practice (Darling-Hammond, 2006). Current TPP development is centered around category indicators and delineates course content, test scores, and practice in the field—both EFEs and student teaching—all critical for PTs to understand and apply theory (Koerner et al., 2002). This has motivated TPPs to add and/or increase the types and expectations of EFEs in their programs.

Early Field Experiences

Early field experiences can be defined as a "field-based learning environment" (Retallick & Miller, 2010, p. 62) for preservice teachers prior to their capstone experience of the student

teaching or professional semester (Huling, 1998). Participating in EFEs allow PTs to observe experienced teachers (Ober, 2013) and practice skills and techniques they have learned about in theory (Retallick & Miller, 2010). These practical experiences come in different forms and are known by various names such as observations, practicals, microteaching, practicums, internships, experiences, partnerships, and placements, and have become an integral piece of a preservice education. As described in chapter one, there are two typical designations of EFE type: observation EFEs where students mainly observe the P-12 classroom but may have limited interactions, and engaged EFEs where PTs work with P-12 students individually or in small or large group settings. They are usually short-term, unpaid (Brannon, 2014), and typically require reflective essays or work samples which can be used to assess the PT (Cruickshank & Metcalf, 1993). Preservice teachers who take coursework paired with field experiences, a practice of discovery learning, are better able to apply theory to practice (Darling-Hammond, 2006, 2010; Yilmaz, 2011). Effective teachers come from all backgrounds, regardless of demographics or experience (McBer, 2001), so providing PTs the opportunity to experience multiple classrooms and multiple teachers increases their chances to observe quality professional teachers in the field.

Over the last forty years, institutions have shifted the way they prepare future teachers. Prior to the 1980s, classroom experience for a PT was limited to the capstone student teaching semester (Huling, 1998). Many writers point to the theories and teachings of John Dewey when speaking about the importance of field experiences for PTs, as Dewey believed they should have the opportunity for more experience before “plunging the student teacher into the complexities of responsibility for classroom control and management” (Shulman, 1998, p. 514) and that the best way to learn practical lessons about teaching was to observe what other, more experienced teachers do in the classroom (Rury, 1986). The beginning of this trend in teacher education

happened in laboratory schools under the "premise that PTs should have opportunities to work in the K-12 classroom… to ground their understanding of pedagogical theory with practice" (Bieda et al., 2017, p. 853). This led to earlier opportunities for PTs to spend more time in the field, gaining experience in multiple ways to observe and engage with classroom teachers and K-12 students (Ober, 2013). By the start of the 21st century, 77% of elementary programs and 70% of secondary programs require their PTs to have at least one EFE in their first two years (Huling, 1998). Currently, CAEP, as part of accreditation process, requires TPPs to document evidence they form partnerships with P-12 schools to provide EFEs (CAEP, 2022).

Research in the field relating to the benefits and value of EFEs has varied results. A study by Bieda et al., (2017) found that these experiences in classrooms prior to student teaching, coupled with support, improved the quality of their teaching in the classroom. Ögeyik (2016) wrote that "student teachers strongly acknowledged the usefulness and resourcefulness of microteaching for boosting creativity and for gaining practical experience" (p. 1520). However, not all field experiences were created equal as differences in classrooms, cooperating teachers, and student composition can change the perception of preparation in PTs (Goldhaber et al., 2021; Goodman, 1985). Many novice teachers were concerned that their experiences were not enough to prepare them (Rife Oman, 2019), and Smalley (2011) listed concerns that included forced conformity and large differences in coursework versus experience for PTs.

Different forms of EFEs can be found in almost every accredited program across the United States, and most would agree they are an important facet of TPPs (Ball & Cohen, 1999; Darling-Hammond, 2006; Koerner et al., 2002). Issues still exist, however, in how EFEs are conducted, how long and how often they occur, and how to connect the theoretical classroom to the practical classroom (Mtika et al., 2014). Studies conducted on assessing teacher preparation

and determining readiness for the classroom have provided insight to teacher educators as they continue to improve the preparation of PTs.

Preservice Teacher Preparation, Assessment, and Readiness

Preservice teachers go through a variety of exercises during their TPP that are aimed at preparing them to be ready for the student teaching semester and, later, teaching in the P-12 classroom. Through this preparation, PTs should develop knowledge—content, pedagogy, and content pedagogy—and be able to "exercise a variety of learning activities" (Stripling et al., 2014, p. 151). To be considered as ready, PTs should be prepared to "engage in, or enact teaching of content" (McMahon & Dinan Thompson, 2014, p. 121) using a "repertoire of teaching skills" (Richards, 2011, p. 4). Yüksel and Saglam, (2018) quote the European Commission, (2013) that readiness "encompasses the knowledge and abilities to find, evaluate and deploy learning materials," and have "critical, evidence-based attitudes, enabling them to respond to students' outcomes, new evidence…., and professional dialogue" (p. 208).

Measuring the abilities and readiness of PTs to student teach is an ongoing process. The profession needs instruments "identifying various levels of quality teaching" and "what desired quality teaching looks like" (Chen et al, 2014, p. 60). Shearron (1976) focused on how to define and create instruments to measure these traits or competencies. This included "observable behavior... manipulation of ideas, and the making of judgements and decisions" (p. 3). Ayers and Thompson (1990) used an instrument designed to assess student teacher perceptions of their own readiness to teach and discussed how it could be used for formal evaluation. The need for empirical evidence of this readiness increased in the 1990s with the introduction of alternative licensure or certification to teach, where industry experts stepped into the classroom without going through a TPP. As schools began hiring new teachers with no formal educational training,

increased evidence of the benefit of such training, including field experiences was essential to prove the effectiveness of the preservice model (Ronfeldt et al., 2018). Many types of TPPs currently exist, but preservice programs, especially those with at least 30 weeks of field experiences, show the best outcomes (Darling-Hammond, 2006, 2010).

In 1954, NCATE, renamed CAEP in 2010, was formed as a governmental body to ensure the quality and readiness of new teachers (CAEP, 2020b). Many teacher preparation programs now have their own instruments measuring readiness as CAEP requires evidence for accreditation. The Office of Teacher Education at PSU uses the Field Experience Inventory (FEI), an evaluation tool with 55 indicators aligned with InTASC Standards as previously mentioned, as evidence for CAEP requirements (OTE, 2021). This tool, and those like it, are used by programs to evaluate teaching quality and readiness by observation (Chen et al., 2014).

Schools want to hire effective teachers, and the American education system continues to look for ways to determine beforehand if a teacher will be a quality teacher. Using factors, such as PT admission profile and GPA, to predict readiness and success in teachers were found to be insignificant (Casey & Childs, 2011). Effective teachers come from all backgrounds, regardless of age and experience, so other predictors need to be used in assessing and predicting success in PTs (McBer, 2001). Throughout their tenure in the education program, PT's preparation and readiness is usually assessed and quantified by reports and surveys done by either the student teacher, student's faculty advisor, OTE personnel, cooperating teacher, supervising teacher or a combination of. Researchers may use data from TPP and ratings of their PTs to determine if the ratings predict success as a novice teacher (Fahrer, 2019). These ratings are used to track PT progress and are reported to CAEP to justify program effectiveness. Fahrer's (2019) study on teacher and PT evaluation tools resulted in the creation of an inventory based on data-driven

predictive factors of teacher success, readiness, and effectiveness that he hopes will be adopted by TPPs in the future. Casey and Childs (2011) examined the ratings of PTs by both the cooperating teacher and the supervising teacher on the same student and found they were both significantly positive even though the supervisor did not spend as much time in the classroom with the PT as the cooperating teacher did. In a study by Ronfeldt et al. (2018), cooperating teachers' ratings of the PTs during student teaching were significant predictors of their evaluations their first year in the classroom. In this same study, conversely, the self-ratings of the PTs were not able to predict their first-year evaluations. However, Aybek and Aslan (2019) linked readiness to self-efficacy and found that there is a positive relationship between them for the PT.

Preparation for student teaching, and later professional teaching, is an integral part of a PT's education. Developing knowledge and skill sets, both theoretical and practical, are highly accepted as imperative by researchers and evaluators alike (Darling-Hammond, 2006). Being ready to student teach may correlate with being ready to teach (Casey & Childs, 2011). Hiring new graduates who are ready to teach is an important focus of school and of education in general (Dede, 2010). While there is not consensus on the details of measuring preparation or readiness in PTs, there are few arguments that TPPs need to know how to determine their success in preparing future educators (Chen et al., 2014). Research shows TPPs need to look outside their own walls, to the community of professional teachers, to provide a setting for PTs to learn, grow, and even make mistakes (Danielson, 2001; Darling-Hammond, 2006; Wenger et al., 2012; Yilmaz, 2011).

Early Field Experiences' Effect on Readiness and Preparation

The presence of EFEs has been found to be correlated with high ratings during PT evaluations. Huling (1998) found teachers from field-based TPPs were reported as better prepared by school principals. This same study found that beliefs from all participants—student teachers, TPPs, and P-12 schools—were that more field experiences led to better preparation. Goodman (1985) examined when the experiences happen. He found that while experiences are good, having a longer experience in one classroom right before the professional semester produced better readiness results and that this experience needed to be an engaged one involving design and implementation of curriculum. The location of the field experience played a part in readiness and retention for Ronfeldt (2012). This study found student teaching in a school with a larger underserved population led to lower test scores as a first-year teacher and a higher likelihood of leaving their first teaching job as compared to those who taught with a lower underserved population, regardless of the population at their first-year school. When evaluating a program, including where, when, and how to have field experiences, Ronfeldt et al. (2018) suggested that cooperating teachers rating of PT readiness might be a more effective insight than PT self-rating in program design and planning.

Darling-Hammond (2005) outlined a series of studies in the 1980s and early 1990s where researchers compared various outcomes of groups with different amounts of practical experience in the classroom. All studies presented found that graduates with a greater number of field experience hours tended to have better outcomes and success as a new teacher. The differences between field experience hours, however, were because of differences in the required length of student teaching or other EFEs requirements in different programs or institutions. In other words, if Institution A PTs had an average of 50 EFE hours and Institution B PTs had an average of 75

EFE hours, Institution B PTs would have better average outcomes. Because these studies compared different program outcomes, not different student outcomes within the same program, these outcomes may not be because of EFE hours, but because of other program differences.

Conclusions

Over the last century, TPPs have experienced a great amount of change (Hargreaves & Fullan, 2000). The current trend, a call for strong partnerships in P-12 schools, started around the turn of the 21st century and soon became a requirement for program accreditation (CAEP, 2020b) as PTs are placed more often in schools. Occurring prior to student teaching, EFEs have become an integral part of most TPPs (Mtika et al., 2014), where PTs practice theory by application (Darling-Hammond, 2010). These experiences can take the form of observations or hands-on practica and are usually organized as a collaboration between TPPs and P-12 schools, all while being observed by experienced teachers (Lofthouse & Wright, 2012). One goal of these EFEs is to provide PTs with the opportunity to observe professional teachers and to practice skills with these teachers in a low-stakes, supervised environment prior to the student teaching semester in order to increase competencies or readiness for student teaching. The competencies of the PT are usually measured by an inventory during, but not limited to, the beginning and end of the professional semester and typically include content knowledge, pedagogical knowledge and pedagogical content knowledge (Fahrer, 2019).

There is empirical evidence from previous studies linking field experiences to success in teaching. Perceptions of preparedness among PTs, as well as ratings from cooperating teachers in during student teaching are also found to indicate success for a novice teacher. These perceptions and ratings are important as they are also correlated with longevity and effectiveness in the P-12 classroom. While there is evidence for the continuation of EFEs, there are still gaps in the

research regarding how many, what type, when, and how many hours are the most effective in preparing PTs for student teaching and success in the P-12 classroom. Learning by experience, coupled with reflection on the experience and repeat practice, in the P-12 classroom may some reasons EFEs are valuable.

Theoretical Framework

"Detailed feedback, with opportunities to retry and continue to improve… followed by systematic reflection" (Darling-Hammond, 2010, p. 40) should be core criteria and components in a TPPs. Kolb's Experiential Learning Theory (ELT) was used as the theoretical framework for this study. Kolb (1984) describes this theory as "the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience" (p. 41). In ELT, learners go through four stages: Concrete Experience, Abstract Conceptualization, Reflective Observation, and Active Experimentation. Concrete experiences are found in observation and lead to reflection. Reflecting forms concepts from which action can be taken. Decisions leading to actions create circumstances so new decisions can be made (Kolb, 2005). One focus of ELT is an emphasis on learning styles and how they use these four stages differently based on a learner's preferences and strengths (Kolb, 1999). In alignment with ELT, students in EFEs have the opportunity to learn, do, reflect and grow, then, they can repeat the process for larger growth, all way navigating the experience utilizing their own unique strengths.

As Darling-Hammond (2010) emphasized, proper preparation can increase experience, leading to increased effectiveness. This study is examining how participating in—and, presumedly, reflecting on—EFEs play an integral part in preparing a PT for teaching. Similarly, ELT emphasizes how experience and reflection are essential in the learning process. Throughout

their program of study, PTs are required to participate in field experiences and then actively reflect on what they saw, heard, did, and the results of these actions. Through this repeated pattern of experience and structured reflection, and by utilizing multiple forms of educational experiences, TPPs transform PTs (Danielson, 2001).

The Covid-19 pandemic, especially the school closures and cancellations of EFEs of spring 2020 through spring 2022, caused many PTs to miss out on foundational experiences in the development and preparation for student teaching. While student teaching has never been cancelled at Pittsburg State University, it was moved to a virtual environment during spring 2020. Other required EFEs have slowly been reopened to PTs, but, as of spring 2022, some are still not placing PTs in P-12 classrooms. These EFEs have been canceled, not postponed, and the hours are likely not to be made up by the PT. These missing experiences may lead to deficits in their abilities as measured by the FEI. While this study did specifically examine the difference between pre- and post-Covid graduates, rather it examined the EFE hours of the whole group, the effects of Covid may certainly affect the results. Limited experiences means less time to go through the stages of ELT, where reflection, growth, and new action help turn PT into professional teacher.

Hypotheses

This study was driven by two questions, both focusing on the relationship between early field experiences and ratings given by the cooperating teacher during student teaching. The first research question examines the initial rating, while the second research question examines the growth between the initial and the final rating. Similarly, the hypotheses of each question are congruent. Hypotheses 1a and 1b examine how time in early field experiences is related to

ratings, Hypotheses 2a and 2b examine if type of EFE makes a difference, and Hypotheses 3a and 3b examine if an increase in the different types is a factor in student teacher ratings.

Research Question 1

Is there a relationship between a preservice teacher's early field experiences and their initial teaching performance rating given by the cooperating teacher during student teaching?

Hypothesis 1a

As total hours in early field experiences increase, initial ratings on the Field Experience Inventory will also increase.

Rationale. Increasing hours of EFEs give PTs more practical experience and reflective practice, which leads to a higher expected FEI rating. By nature and design, EFEs offer different experiences and multiple viewpoints of education than can found in classes based on theory. By spending time in different classrooms with different students and different teachers, PTs are able to have experiences in the field allowing them to have more experience in all stages of learning from ELT—concrete experience, abstract conceptualization, reflective observation, and active experimentation. By addressing all ELT stages of learning, PTs are more likely to synthesize the information, putting into practice their learning from the classroom.

Hypothesis 1b

There are differences in teaching performance ratings between groups with different types of early field experiences.

Specifically, the group of student teachers with both types of EFEs will rate higher on the FEI than other groups. Student teachers with only Engaged EFEs will have

the next highest ratings. Student teachers with only Observation EFEs will rate third, followed by student teachers with no EFEs.

Rationale. The presence of both types of EFEs give PTs more practical experience and reflective practice as well as a more diverse set of learning opportunities, addressing all four stages of ELT, leading to a higher expected FEI rating. The absence of Engaged FEs will have a greater negative impact than the absence of Observed FEs.

Hypothesis 1c

An increase in Engaged EFE hours will increase the rating on the FEI more than an increase in the number of Observed EFE hours will.

Rationale. Engaged EFEs have more practical and reflective opportunities. An increase of hours in this type should have more of an impact on FEI ratings than an increase in Observation EFEs hours does.

Research Question 2

Is there a relationship between a preservice teacher's early field experiences and their growth in teaching performance ratings during student teaching?

Hypothesis 2a

As hours in Early Field Experiences increase, there will be greater increase in ratings on the Field Experience Inventory, from initial to final, during the student teaching semester.

Rationale. Increasing hours of EFEs give PTs more practical experience and reflective practice. Because they have more practice at experiential learning, they will have bigger growth during student teaching.

The changes in a PT over the holistic experience of a TPP, including all field experiences, could be compared to the changes made during the student teaching semester

although over a much shorter time period. By having practice in this process, especially the reflective piece as identified by ELT, the PT will be better prepared to apply lessons learned during student teaching, resulting in increased growth.

Hypothesis 2b

There are differences in teaching performance rating growth between groups with different types of early field experiences.

Specifically, the group of student teachers with both types of EFEs will show a greater increase on the FEI than other groups. Student teachers with only Engaged EFEs will show the next greatest increase. Student teachers with only Observation EFEs will show third greatest growth, followed by student teachers with no EFEs.

Rationale. The presence of both types of EFEs give preservice students more practical experience and reflective practice. Having the opportunity to practice experiential learning will lead to a greater increase in FEI rating. The absence of Engaged EFEs will have a greater negative impact than the absence of Observation EFEs.

Hypothesis 2c

An increase in Engaged EFE hours will increase the rating on the Field Experience Inventory more than an increase in Observation EFE hours will.

Rationale. Engaged EFE have more practical and reflective opportunities. An increase of hours in this type should have more of an impact on FEI ratings than an increase in Observation EFEs does.

Summary

Teacher preparation may affect the quality of teacher effectiveness in the P-12 classroom (Darling-Hammond, 2005). Stakeholders in education and researchers alike continue to look for

the most effective models for TPPs. This search for effective practice has led to the creation of accrediting bodies such as CAEP, the development of PT rating inventories such as the FEI, and the implementation of EFEs. These practices continue to evolve over time and the instruments we use to evaluate what effective means are not always valid (Fahrer, 2019). With Covid-19 affecting education, opportunities for different studies examining these practices are available.

This chapter examined the concepts of early field experience and preservice teacher preparation and readiness, as well as their inclusion in teacher education programs. This examination showed there is a gap in the literature regarding the relationship EFEs have with PTs are they prepare to student teach. Former studies suggest that EFEs will increase readiness, but what combination of type of EFEs and hours still needs to be studied. Using Kolb's Experiential Learning Theory as a framework, six hypotheses were drawn regarding this relationship. Findings from this study may inform TPP design in regards to partnerships with P-12 schools for practical experience as part of PT education. The next chapter will discuss the methodology of the study and how multiple regression will be used to empirically study the data collected.

Chapter 3: Methodology

The intent of this study was to explore the relationship between a preservice teacher's early field experiences and their professional indicator ratings given by their cooperating teachers during student teaching. Empirical evidence is needed to help give direction in decision-making about the number of hours in and type of early field experiences (EFEs) to teacher preparation programs. This chapter describes the methodology in the study as well as its research questions. Six hypotheses were developed to answer two research questions and their substantive, statistical, and null forms are presented. These hypotheses suggest early field experiences do make a difference in how well a preservice teacher is rated during student teaching.

This study occured in Pittsburg Kansas, a place considered to be in the rural Midwest Region of the United States. To better allow for replication of this study in other demographics, a description of the research design, study setting, participant details, and data collected is provided. Existing data, including demographics and inventory rating scores collected by the university teacher preparation department, was used and no instrument was developed specifically for this study. Validity and reliability have previously been established for the inventory scale used by this department. The variables explored in this multiple regression study are defined and placed in models mathematically representing the linear equations of the analysis. Finally, justification for multilinear hierarchical regression is discussed and threats to validity are examined.

Research Questions and Hypotheses

The following questions and hypotheses guided this study:

RQ1. Is there a relationship between a preservice teacher's early field experiences and their initial teaching performance rating during student teaching?

H1a. As total hours in early field experiences increase, ratings on the Field Experience Inventory (FEI) will also increase.

H_0: $b_{\text{Total EFE Hours}} = 0$

H_1: $b_{\text{Total EFE Hours}} > 0$

H1b. There are differences in teaching performance ratings between groups with different types of early field experiences.

Specifically, the group of student teachers with both types of EFEs will rate higher on the FEI than other groups. Student teachers with only Engaged EFEs will rate next. Student teachers with only Observation EFEs will rate third, followed by student teachers with no EFEs.

H_0: $b_{\text{Both EFE Types}} = b_{\text{Engaged EFE Only}} = b_{\text{Observed EFE Only}} = b_{\text{No EFE}}$

H_1: $b_{\text{Both EFE Types}} > b_{\text{Engaged EFE Only}} > b_{\text{Observed EFE Only}} > b_{\text{No EFE}}$

H1c. An increase in Engaged EFE hours will increase the rating on the FEI more than an increase in the number of Observed EFE hours will.

H_0: $b_{\text{Engaged EFE Hours}} = b_{\text{Observed EFE Hours}} = 0$

H_1: $b_{\text{Engaged EFE Hours}} > b_{\text{Observed EFE Hours}} > 0$

RQ2. Is there a relationship between a preservice teacher's early field experiences and their growth in teaching performance ratings during student teaching?

H2a. As hours in early field experiences increase, there will be greater increase in ratings on the Field Experience Inventory, from initial to final, during the student teaching semester.

H_0: $b_{\text{Total EFE Hours}} = 0$

H_1: $b_{\text{Total EFE Hours}} > 0$

H2b. There are differences in teaching performance rating growth between groups with different types of early field experiences.

Specifically, the group of student teachers with both types of EFEs will show a greater increase on the FEI than other groups. Student teachers with only Engaged EFEs will show the next greatest increase. Student teachers with only Observation EFEs will show third greatest growth, followed by student teachers with no EFEs.

H_0: $b_{\text{Both EFE Types}} = b_{\text{Engaged EFE Only}} = b_{\text{Observed EFE Only}} = b_{\text{No EFE}}$

H_1: $b_{\text{Both EFE Types}} > b_{\text{Engaged EFE Only}} > b_{\text{Observed EFE Only}} > b_{\text{No EFE}}$

H2c. An increase in Engaged EFE hours will increase the rating on the Field Experience Inventory more than an increase in Observation EFE hours will.

H_0: $b_{\text{Engaged EFE Hours}} = b_{\text{Observed EFE Hours}} = 0$

H_1: $b_{\text{Engaged EFE Hours}} > b_{\text{Observed EFE Hours}} > 0$

Methods

Study Design

For this quantitative study, multiple regression analysis was used to determine the direction and strength of the relationship between multiple dependent and independent variables. Cross-sectional regression was used to examine participants at a specific moment in time, their student teaching semester, to determine if there is a relationship between their previous early field experiences and FEI ratings. This was an observational study, with no manipulation of variables or participants. Archival data collected by the Office of Teacher Education (OTE) at Pittsburg State University (PSU) was the data source for the study. A multiple regression study is

appropriate as it focuses on forecasting how the time spent by the PTs in different types of EFE relates to their ratings during student teaching as scored by the FEI (Glover, 2011). The amount of data available from the OTE was adequate enough to perform the multiple regression modeling.

Study Setting

This study takes place at PSU located in Southeast Kansas. The OTE requires all preservice teacher candidates to complete specific EFE hours during coursework, while individual programs can add on other EFE requirements. Courses with EFEs are listed in the table below, along with the type of EFE they are considered to be, the number of required hours, and whether they are required by the elementary or secondary programs.

Early Field Experience Hour Requirements by Course (2022-2023)				
Course Name	**EFE Type**	**Number of Hours**	**Elementary Required**	**Secondary Required**
Explorations in Education	Observational	33	Yes	Yes
Clinical Experience	Observational	33	Yes	Some Programs
Overview of Special Ed	Engaged	10	Yes	Yes
Internship	Engaged	60	Yes	No

Additionally, in order to obtain teacher licensure, all majors must complete the professional semester as a student teacher. Student teaching occurs in the P-12 classroom under the supervision of a licensed teacher, nominally vetted by the OTE, who has at least three years of experience. The conditions and requirements of the preservice teacher and cooperating teacher during student teaching are explained to all parties. This includes attendance, dress code, conduct, and how the FEI is used, among other details.

Participants and Placement

Participants for this study were students at PSU accepted to the Teacher Education Program and have participated in student teaching through the OTE from Fall 2017 through Spring 2022, a total of 10 semesters. This population was approximately 450 individuals. Participants were excluded if there are incomplete records of their EFE hours or a missing initial or final student teaching FEI.

The data needed for this study was already collected by the PSU Office of Teacher Education. Therefore, the entire preservice teacher population was used to avoid the possibility of collecting a nonrepresentative sample. In the event something had prevented the entire population to be studied, stratified convenience sampling was to be used to randomly choose the same number of students from each semester. As Covid-19 cancelations of field experiences may have affected certain semesters, students from all semesters need to be equally represented. A power analysis using GPower 3.1.9.7 was conducted. For an a priori, linear regression fixed model F test, R^2 deviation from zero for a medium effect size ($f^2 = 0.15$, $\alpha = 0.05$, power = 0.80) with nine predictors indicates a sample size of 114 is needed. Equally dividing this number into the 10 semesters means 12 student teachers per semester are suggested. However, having less than 20 in a group may cause issues in violations of normality for multiple regression. So, if the entire population was unable to be used, 20 students per semester would be randomly selected for this study.

Materials

This study used the results obtained from the PSU OTE Field Evaluation Instrument (FEI) (OTE, 2021). This instrument was developed in-house using previous evaluation instruments and state recommended guidelines in order to meet Council for the Accreditation of

Educator Preparation (CAEP) requirements for Interstate Teacher Assessment and Support Consortium (InTASC) standards. It was vetted through four PSU Education Coordinating Councils—Elementary, Secondary, College of Education, and Advance Programs—and piloted for two semesters with teacher candidates.

After piloting the FEI, the OTE established validity through a panel of 20 expert volunteers using Lawshe's (Ayre, 2014) Content Validity Ratio to determine agreement between experts using the instrument. Lawshe's Ratio is:

$$CVR = \frac{n_e - N/2}{N/2}$$

Where n_e= the number of experts who agreed on the relevance of the item, behavior, or question and N= total members of the panel of expert judges. A CVR = 1 indicates perfect expert agreement and for N = 20, minimum critical CVR to meet significant one-tail test (α = .05) is 0.42. Developers agreed that any indicator lower than CVR = 0.5 (75% agreement) would be removed.

Fifty-five initial indicators in four categories were tested; six did not meet expert agreement. Of these, two were removed completely, three were removed from CAEP reporting, and one was moved to a different category based on expert recommendation. This study will only include what is reported to CAEP. Results for the validity study for both individual indicator and overall category is found in Appendix C.

Interrater reliability was tested during the first pilot year by comparing faculty ratings of 153 student teachers using a one-way, random, consistency, average measures Interclass Correlation Coefficient (ICC). All four categories had an ICC between 0.58 and 0.67, three good ratings (ICC between 0.60 and 0.74 = Good) and one high fair (ICC between 0.40 and 0.59 = Fair). This indicates raters had a moderate degree of agreement and only a small degree of

measurement error. The OTC has continued to evaluate validity and reliability of the instrument using these tests with similar and sometimes better results.

Measures

Dependent Variables

Rating on FEI (Y1). The FEI is an assessment tool of the preservice teachers (PTs) professional qualities and readiness for teaching. Preservice teachers should develop knowledge (content, pedagogy, and content pedagogy) and be able to "exercise a variety of learning activities" (Stripling et al., 2014, p. 151). Preservice teachers should be ready to "engage in, or enact teaching of content" (McMahon & Dinan Thompson, 2014, p. 121) using a "repertoire of teaching skills" (Richards, 2011, p. 4). Yüksel and Saglam (2018) quote the European Commission, (2013) that readiness "encompasses the knowledge and abilities to find, evaluate and deploy learning materials," and have "critical, evidence-based attitudes, enabling them to respond to students' outcomes, new evidence…., and professional dialogue" (p. 208). The FEI has 53 indicators divided into four overall categories: Learner and Learning, Content, Instructional Practice, Professional Responsibility. Student teacher supervisors and cooperating teachers use a 1-4 scale to rate the student teacher, with 1 = Novice, 2 = Developing, 3 = Effective, 4 = Advanced. Supervisors and cooperating teachers are given a rubric describing what qualifies each level for each indicator (See Appendix A).

Final FEI score (Y2). Student teachers are rated by the FEI three times during the Professional Semester (initial, midterm, final). The final FEI score will represent the change in FEI score from initial to final and will include the initial FEI score as a control.

Independent Variables

Total Time Spent in Early Field Experiences (X1). This is a continuous variable describing the number of hours spent in the P-12 classroom required by coursework taken by the preservice teacher. These courses may be required or optional for their program or study. By examining a student's transcript, the number of hours a student would have been required to spend in field experiences can be determined. During the Covid-19 pandemic, selected field experiences were canceled for all students in a given course. The OTE tracks what semester each student takes coursework with required hours in the P-12 classroom and what semesters field experiences were canceled. For any PT taking a course that had field experiences canceled, even if they were moved to a virtual environment, those hours will be removed from their expected total number of EFE hours.

Total time can be split into time spent in the two types of EFE, observation and engaged. After determining whether total time spent is significant, hierarchical modeling will be used to examine if splitting total time into time spent in different types of field experiences will produce a better fit for the model.

Time Spent in Observation Early Field Experience (X2). Observation early field experiences are EFE specifically allowing PTs to observe successful teachers (Ober, 2013). In observations, PTs may have limited opportunities to interact with students, but are not expected to practice teaching or management skills. This is a continuous variable measured as hours in the K-12 classroom as required to pass a specific Teacher Education course.

Time Spent in Engaged Early Field Experience (X3). Engaged early field experiences are EFE which provide PTs the opportunity to practice skills and techniques they have learned about in theory (Retallick & Miller, 2010). When participating in engaged EFE, PTs may have

times of observation, but the expectation is that they will work with students, both individually and as large or small groups. This is a continuous variable measured as hours in the P-12 classroom as required to pass a specific Teacher Education course.

Presence of Early Field Experiences (X4). Normally, all PTs will have both types of field experiences. However, due to unusual circumstances, usually, but not limited to Covid-19 restrictions, a student may not have been required to complete all field experiences in the P-12 classroom. This variable will be dummy coded into three variables (Observation EFE only, Engaged EFE only, and Both EFE Types) with "No Early Field Experience" as reference:

Observation EFE Only (X_{4a}) The PT has met course hour requirements for at least one Observation EFE, but no Engaged EFE.

Engaged EFE Only (X_{4b}) The PT has met course hour requirements for at least one Engaged-type EFE, but no Observation EFE.

Both EFE Types (X_{4c}) The PT has met course hour requirements for at least one Observation EFE and at least one Engaged EFE.

Control Variables

Age (X5). Age is a continuous variable measured in years for each individual. Age is included because the older a PT, the more opportunities they may have had to interact and work with P-12 students.

Gender (X6). While multiple ways to define this categorical variable exist, PSU currently labels individuals as either male, female or undefined by the student's self-identification upon university application. Gender is defined as 'either the male or female division of a species, especially as differentiated by social and cultural roles and behavior' and 'a similar category of human beings that is outside the male/female binary classification and is

based on the individual's personal awareness or identity (Dictionary.com, 2021). Gender will be dummy coded into two variables (Male, Female) with participant identification of “Undefined” as the reference.

Male (X6a) The participant self-identified as male on OTE application.

Female (X6b) The participant self-identified as female on OTE application.

Program Type (X7). Pittsburg State University groups undergraduate education majors into two categories, Elementary and Secondary. Elementary includes all K-6 majors as well as K-12 majors such as PE and Art Education. Elementary Education majors follow a very strict pathway toward completion of their degree, while Secondary Education programs vary greatly based on content (i.e., math, English, technology) degree requirements. Program type will be dummy coded with “Secondary” being the reference.

Data Collection

All data from PSU preservice teachers required by this study was collected and compiled by the Office of Teacher Education. The OTE keeps track of all individuals’ application data as well as EFE hours and evaluation scores throughout their progress toward program completion. Historical data was used by the OTE to enumerate EFE hours based on the presence or absence of in-person EFEs during the semester a student completed a course with a required EFE. Only EFE hours required for coursework are counted for this study. Pittsburg State University’s OTE was an active supporter of this project as they may use results as a self-study for accreditation purposes.

The OTE also issues and collects the Field Experience Inventory (FEI) for all its PTs. The FEI is utilized multiple times during the course of a PT’s education preparation program, including three instances during student teaching, but this study only focused on the initial and

final FEI collected during student teaching by the cooperating teacher. The collected EFE numerical data was summarized into total hours a student spent in both types of EFE respectively. All FEI scores are reported as an average score from all indicators for each instance it is used.

Data Analysis

Multiple Regression

Multiple regression was used to examine all the hypotheses for this study as it is useful in examining the effects or relationships between multiple independent or predictor variables and a dependent variable (Roberts & Roberts, Jr., 2020). This study examined the strength and direction of multiple independent variables and controls as they relate to a dependent variable as laid out in the study hypotheses.

Hypothesis 1a: The relationship between initial FEI score and hours spent in early field experiences, after controlling for age, gender, and program.

Hypothesis 1b: The relationship between initial FEI score and types of early field experiences, after controlling for age, gender, and program.

Hypothesis 1c: The relationship between initial FEI score and hours spent in the different types of early field experiences after controlling for age, gender, and program.

Hypothesis 2a: The relationship between the change in FEI score from initial to final and hours spent in early field experiences, after controlling for age, gender, program, and initial FEI score.

Hypothesis 2b: The relationship between the change in FEI score from initial to final and types of early field experiences, after controlling for age, gender, program, and initial FEI score.

Hypothesis 2c: The relationship between the change in FEI score from initial to final and hours spent in the different types of early field experiences after controlling for age, gender, program, and initial FEI score.

Hierarchical Modeling

Hierarchical modeling was used in Hypotheses 2a and 2b to determine if adding early field experience type predictors create a significantly better model. In hierarchical linear regression, variables are added to the model in blocks to statistically control for variables, to examine "whether new variables significantly improve a model's ability to predict the criterion variable and/or to investigate a moderating effect of a variable" (Sage Publications, 2018). An F change scores of $p < .05$ will be needed to be considered significant.

ANOVA and Planned Contrast

When significantly better models are produced after running the hierarchical models for Hypotheses 2a and 2b, ANOVA and planned contrast tests are used to determine if there are differences between the four groups. ANOVA is useful in comparing mean differences within groups without increasing the probability of Type 1 error in the analysis (Field, 2018).

Hypotheses 2a and 2b state that there is an order to the differences in the four groups of variable X_4 "Presence of Early Field Experiences". Planned contrast is used in this situation, comparing one group to the rest and then removing that group and repeating until there is only one group. There are three planned contrasts for each hypothesis. Contrast 1 for each hypothesis compares the reference group "No Early Field Experiences" against the other three groups, X_{4a}, X_{4b}, and X_{4c}, ("Only Observation EFE", "Only Engaged EFE", "Both EFE Types" respectively). Contrast 2 compares X_{4a} against X_{4b} and X_{4c}. Finally, Contrast 3 compares X_{4b} and X_{4c}. After

contrasts were completed, beta coefficients were compared and a t-statistic given. T-statistics with a probability of $p < .05$ were considered a significant difference between groups.

Software

IBM Statistical Package for the Social Sciences (SPSS) version 27 was used to analyze data and check the assumptions of multiple regression. Tests for normalcy, linearity, multicollinearity, and homoscedasticity using plots, charts, graphs, and tables were performed, and any issues noted and corrected if possible.

Models

In order to test the hypotheses of the study, the following models were used:

RQ1. Is there a relationship between a preservice teacher's early field experiences and their initial teaching performance rating during student teaching?

H1a. Y_1 (*initial FEI score*) = $b_0 + b_1X_1$ (*total EFE time)* + b_2X_5 (*age)* + b_3X_{6a} (*male)*+ b_4X_{6b} (*female)*+ b_5X_7 (*elementary)*

H1b. Block 1: Y_1 (*initial FEI score*) = $b_0 + b_1X_5$ (*age)* + b_2X_{6a} (*male)*+ b_3X_{6b} (*female)*+ b_4X_7 (*elementary)*

Block 2: Y_1 (*initial FEI score*) = $b_0 + b_1X_{4a}$ (*only observation)* + b_2X_{4b} (*only engaged)* + b_3X_{4c} (*both)* + b_4X_5 (*age)* + b_5X_{6a} (*male)*+ b_6X_{6b} (*female)*+ b_7X_7 (*elementary)*

H1c. Y_1 (*initial FEI score*) = $b_0 + b_1X_2$ (*observation hours)* + b_2X_3 (*engaged hours)* + b_3X_5 (*age)* + b_4X_{6a} (*male)*+ b_5X_{6b} (*female)*+ b_6X_7 (*elementary)*

RQ2. Is there a relationship between a preservice teacher's early field experiences and their growth in teaching performance during student teaching?

H2a. Y_2 (*final FEI score*) = $b_0 + b_1X_1$ (*total EFE time)* + b_2X_5 (*age)* + b_3X_{6a} (*male)*+ b_4X_{6b} (*female)*+ b_5X_7 (*elementary)* + b_6X_8 (*initial FEI score)*

H2b. Block 1: Y_2 (*final FEI score*) = $b_0 + b_1X_5$ (*age)* + b_2X_{6a} (*male)*+ b_3X_{6b} (*female)*+ b_4X_7 (*elementary)* + b_5X_8 (*initial FEI score)*

Block 2: Y_2 (*final FEI score*) = $b_0 + b_1X_{4a}$ (*only observation)* + b_2X_{4b} (*only engaged)* + b_3X_{4c} (*both)* + b_4X_5 (*age)* + b_5X_{6a} (*male)*+ b_6X_{6b} (*female)*+ b_7X_7 (*elementary)* + b_8X_8 (*initial FEI score)*

H2c. Y_2 (*final FEI score*) = $b_0 + b_1X_2$ (*observation hours)* + b_2X_3 (*engaged hours)* + b_3X_5 (*age)* + b_4X_{6a} (*male)*+ b_5X_{6b} (*female)*+ b_6X_7 (*elementary)* + b_7X_8 (*initial FEI score)*

Internal and External Validity

Internal threats to validity are those factors which might be alternative explanations to study findings. For this study, one major confounding internal threat was the Covid-19 pandemic. The pandemic, subsequent P-12 closures, and cancelation of early field experiences for preservice teachers may adversely affect its findings, even though they helped create the situation this study examined. Everyone involved in the educator preparation process is being affected, university faculty and P-12 teachers, as well as the PTs themselves, are under added stress due to pandemic changes and restrictions. Knowing this may affect how supervisors and cooperating teachers rate PTs on the FEI. A PT with less EFEs is expected to have lower ratings, but experts rating them may be more lenient due to circumstances such as stress or not enough time to address low performance. Lower EFE hours may not show a significant relationship with FEI scored due to these changes in ratings.

Other changes, such as lowered enrollment, oversight regulations, and teacher shortages may also decrease the amount of low FEI scores given to PTs at this period in time as teacher

preparation programs attempt to push out more teachers and meet all required metrics. This study did not adjust for these but used the data and ratings as is. Other internal threats may yet be identified.

External threats to validity are factors which keep a study's conclusions from being used outside of the study. This study took place in the Midwest United States where most professional semesters for PTs take place in largely rural, conservative, low-SES schools. These factors may cause readers to be hesitant in applying this study to other groups outside of this context. Replication studies in these other contexts are needed to validate findings.

Summary

Educator preparation programs have long been tasked with providing a quality education to future teachers as they prepare them for the P-12 classroom. Part of this preparation happens in the field, in P-12 classrooms, where preservice teachers observe and interact with student and professional teachers in a setting similar to, hopefully, their future classroom. These early field experiences, which help prepare them to first student teach, then to teach as a profession, are a required part of educator preparation program accreditation. However, direction on how this required element must be met is not concretely established and is debated among the Education Curriculum Council at Pittsburg State University. This study helps give this council, and other like it, direction as they work to prepare preservice teachers for the field.

The Office of Teacher Education at PSU, in conjunction with its Education Curriculum Council, works to provide a "transformative" (PSU, 2022) educational experience for the students who pursue an education major. Whether elementary or secondary focused, all programs at PSU and their respective majors must consider the program of study a student will follow through their postsecondary education. This includes all requirements for licensure, including

field experiences. As these programs look for direction on setting these requirements, they must justify their choices and demonstrate their effectiveness. The Council for the Accreditation of Educator Preparation is the accrediting body PSU has chosen to examine its choices and requirements for its future teachers.

This chapter provided explanation and justification for using cross-sectional multiple regression as a study design. The variables explored, centered around early field experiences and the Field Experience Inventory, were defined and their relationships expressed as formulas. Hierarchical modeling and ANOVA and post hoc tests were used to further study non-experimental variables involving existing data. This examination was used to determine what factors, if any, may predict a preservice teacher's ratings during student teaching. While the Covid-19 pandemic has created systemic anomalies, which allowed for this study, they have also created a new dynamic in preservice teacher evaluation which may be a threat to the study. Further research concerning the effect of the pandemic on teacher preparation programs may be justified and could provide clarity into how findings from this study are interpreted. However, despite the economic, political, and pandemic environment many programs find themselves in, teachers are still an integral part of our future, and TPPs must prepare them for it.

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Appendix A

Field Evaluation Instrument Rubric

	1=Novice: Candidate shows awareness and beginning skills	**2=Developing:** Candidate skills and awareness levels are developing	**3=Effective**: Candidate performed as a student teacher at the end of preparation	**4=Advanced:** (Above Average) Candidate performed as an experienced teacher.
InTASC Cateory: The Learner and Learning				
1. Plans and delivers developmentally appropriate instruction **InTASC 1**	The evidence indicates that the candidate does not or infrequently plans instruction that aligns with students' developmental levels and learning needs.	The evidence indicates that the candidate plans instruction that partially aligns with students' developmental levels and learning needs.	The evidence indicates that the candidate regularly plans instruction that aligns with students' developmental levels and learning needs.	The evidence indicates that the candidate consistently and effectively plans instruction that closely aligns with students' developmental levels and learning needs.
2. Consults a variety of sources (e.g., student records, counselors, resource specialists, parent conferences, test results, and other diagnostic tools) to determine the learning needs and capabilities of individual students **InTASC 1**	The evidence indicates that the candidate does not or infrequently takes steps to learn about students as individuals and as learners.	The evidence indicates that the candidate takes partial steps to learn about students as individuals and as learners.	The evidence indicates that the candidate regularly takes steps to learn about students as individuals and as learners.	The evidence indicates that the candidate consistently and effectively takes steps to learn about students as individuals and as learners.
3. Differentiates instruction appropriately for specific needs of learners **InTASC 2**	The evidence indicates that the candidate does not or infrequently adapts plans and instruction, and/or the adaptation is often not appropriate to the students' learning needs.	The evidence indicates that the candidate provides some adaptation of plans and instruction that met some of the students' learning needs.	The evidence indicates that the candidate regularly adapts plans and instruction, when appropriate, to meet students' learning needs.	The evidence indicates that the candidate consistently and effectively adapts plans and instruction, when appropriate, to meet all students' learning needs.
4. Persists in helping all students achieve success **InTASC 2**	The evidence indicates that the candidate does not or infrequently take steps to help students achieve success.	The evidence indicates that the candidate takes some steps to help students achieve success.	The evidence indicates that the candidate regularly helps all students achieve success.	The evidence indicates that the candidate consistently and effectively helps all students achieve success.
5. Designs instruction to build on learners' prior knowledge and experiences **InTASC 2**	The evidence indicates that the candidate does not or infrequently designs instruction to build on learners' prior knowledge and experiences.	The evidence indicates that the candidate partially designs instruction to build on learners' prior knowledge and experiences.	The evidence indicates that the candidate regularly designs instruction to build on learners' prior knowledge and experiences.	The evidence indicates that the candidate consistently and effectively designs instruction to build on learners' prior knowledge and experiences.
6. Displays consistency in dealing with behavior in the least disruptive manner, utilizing appropriate positive and negative consequences **InTASC 3**	The evidence indicates that the candidate does not or infrequently deals with behavior in the least disruptive manner, utilizing appropriate positive and negative consequences.	The evidence indicates that the candidate occasionally deals with behavior in the least disruptive manner, utilizing appropriate positive and negative consequences.	The evidence indicates that the candidate regularly deals with behavior in the least disruptive manner, utilizing appropriate positive and negative consequences.	The evidence indicates that the candidate consistently and effectively displays consistency in dealing with behavior in the least disruptive manner, utilizing appropriate positive and negative consequences.
7. Demonstrates positive rapport with a diverse student population **InTASC 3**	The evidence indicates that the candidate does not or infrequently demonstrates positive rapport with a diverse student population.	The evidence indicates that the candidate occasionally demonstrates positive rapport with a diverse student population.	The evidence indicates that the candidate regularly demonstrates positive rapport with a diverse student population.	The evidence indicates that the candidate consistently and effectively demonstrates positive rapport with a diverse student population.
8. Understands and respects a diverse student/parent population and helps all students learn respect for the traditions and cultures of others **InTASC 3**	The evidence indicates that the candidate does not or infrequently shows understanding of and respect for diverse populations, helping all students learn respect for the traditions and cultures of others.	The evidence indicates that the candidate partially shows understanding of and respect for diverse populations, helping all students learn respect for the traditions and cultures of others.	The evidence indicates that the candidate regularly shows understanding of and respect for diverse populations, helping all students learn respect for the traditions and cultures of others.	The evidence indicates that the candidate consistently and effectively shows understanding of and respect for diverse populations, helping all students learn respect for the traditions and cultures of others.
9. Uses appropriate nonverbal communication	The evidence indicates that the candidate does not or infrequently uses nonverbal communication appropriately.	The evidence indicates that the candidate occasionally uses nonverbal communication appropriately.	The evidence indicates that the candidate regularly uses nonverbal communication appropriately.	The evidence indicates that the candidate consistently and effectively uses nonverbal communication appropriately.
10. Provides a learning environment which includes high time-on-task and active engagement **InTASC 3**	The evidence indicates that the candidate does not or infrequently collaborates with students to promote time-on-task and active engagement.	The evidence indicates that the candidate occasionally collaborates with students to promote time-on-task and active engagement.	The evidence indicates that the candidate regularly collaborates with students to promote time-on-task and active engagement.	The evidence indicates that the candidate consistently and effectively collaborates with students to promote time-on-task and active engagement.
11. Promotes a classroom environment that is caring and supportive to all students **InTASC 3**	The evidence indicates that the candidate does not or infrequently promotes a culture of respect and rapport across the student population.	The evidence indicates that the candidate occasionally promotes a culture of respect and rapport across the student population.	The evidence indicates that the candidate regularly promotes a culture of respect and rapport across the student population.	The evidence indicates that the candidate consistently and effectively promotes a culture of respect and rapport across the student population.

12. Organizes and maintains the physical environment of the classroom in a pleasant and orderly manner conducive to student learning and safety **InTASC 3**	The evidence indicates that the candidate does not or infrequently arranges the classroom environment for learning, including clear boundaries for varying activities, attention to student preference of physical arrangement, logical flow of walking traffic, and routines for moving through the classroom space.	The evidence indicates that the candidate attempts to arrange the classroom environment for learning, including clear boundaries for varying activities, attention to student preference of physical arrangement, logical flow of walking traffic, and routines for moving through the classroom space.	The evidence indicates that the candidate regularly arranges and maintains the classroom environment for learning, including clear boundaries for varying activities, attention to student preference of physical arrangement, logical flow of walking traffic, and routines for moving through the classroom space.	The evidence indicates that the candidate consistently and effectively arranges and maintains the classroom environment for learning, including clear boundaries for varying activities, attention to student preference of physical arrangement, logical flow of walking traffic, and routines for moving through the classroom space.
13. Monitors students' behaviors and activities in the classroom at all times **InTASC 3**	The evidence indicates that the candidate does not or infrequently monitors students' behaviors and activities in the classroom.	The evidence indicates that the candidate inconsistently monitors students' behaviors and activities in the classroom.	The evidence indicates that the candidate regularly monitors students' behaviors and activities in the classroom.	The evidence indicates that the candidate effectively monitors students' behaviors and activities in the classroom at all times.
14. Handles multiple tasks, intrusions and distractions while maintaining the flow of the lesson **InTASC 3**	The evidence indicates that the candidate does not or infrequently maintains the flow of the lesson when faced with multiple tasks, intrusions and distractions.	The evidence indicates that the candidate inconsistently maintains the flow of the lesson when faced with multiple tasks, intrusions and distractions.	The evidence indicates that the candidate regularly maintains the flow of the lesson when faced with multiple tasks, intrusions and distractions.	The evidence indicates that the candidate consistently and effectively maintains the flow of the lesson when faced with multiple tasks, intrusions and distractions.
15. Teaches and reinforces classroom expectations, rules, routines and procedures fairly **InTASC 3**	The evidence indicates that the candidate does not or infrequently communicates classroom expectations, rules, routines and procedures clearly and/or infrequently enforces them fairly.	The evidence indicates that the candidate attempts to clearly communicate classroom expectations, rules, routines and procedures and enforce them fairly.	The evidence indicates that the candidate regularly communicates classroom expectations, rules, routines and procedures and enforces them fairly.	The evidence indicates that the candidate consistently and effectively communicates classroom expectations, rules, routines and procedures and enforces them fairly.
InTASC Cateory: Content				
16. Demonstrates content area knowledge **InTASC 4**	The evidence indicates that the candidate does not or infrequently displays knowledge of the important content in the discipline.	The evidence indicates that the candidate displays limited knowledge of the important content of the discipline.	The evidence indicates that the candidate adequately displays knowledge of the important content of the discipline.	The evidence indicates that the candidate displays extensive knowledge of the important content of the discipline, including a wide variety of experiences.

17. Effectively uses multiple representations and explanations that capture key ideas in the discipline, guides learners through learning progressions, and promotes each learner's achievement of content standards **InTASC 4**	The evidence indicates that the candidate demonstrates little or no use of representations and explanations that capture key ideas in the discipline, and does not or infrequently identifies possible student misconceptions.	The evidence indicates that the candidate uses minimal representations and explanations that capture key ideas in the discipline, and inconsistently identifies possible student misconceptions.	The evidence indicates that the candidate regularly uses various representations and explanations that capture key ideas in the discipline, and identifies student misconceptions.	The evidence indicates that the candidate consistently and effectively uses multiple representations and explanations that capture key ideas in the discipline, and addresses student misconceptions.
18. Engages students in learning experiences in the discipline(s) that encourage learners to understand, question and analyze ideas from diverse perspectives using standards of evidence **InTASC 4**	The evidence indicates that the candidate does not or infrequently creates learning experiences that promote development of student perspectives.	The evidence indicates that the candidate attempts to create learning experiences that promote development of student perspectives.	The evidence indicates that the candidate regularly creates learning experiences that promote development of student perspectives.	The evidence indicates that the candidate consistently and effectively creates learning experiences that promote development of student perspectives.
19. Creates opportunities for students to learn and practice content language **InTASC 4**	The evidence indicates that the candidate does not or infrequently provides opportunities for students to understand and use content language/vocabulary.	The evidence indicates that the candidate provides limited opportunities for students to understand and use content language/vocabulary.	The evidence indicates that the candidate regularly provides opportunities for students to understand and use content language/vocabulary.	The evidence indicates that the candidate consistently and effectively provides opportunities for students to understand and use content language/vocabulary.
20. Provides a real world context for lesson content **InTASC 5**	The evidence indicates that the candidate does not or infrequently provides opportunities to students for authentic application of content.	The evidence indicates that the candidate provides limited opportunities to students for authentic application of content.	The evidence indicates that the candidate regularly provides opportunities to students for authentic application of content.	The evidence indicates that the candidate consistently and effectively provides opportunities to students for authentic application of content.
21. Demonstrates pedagogical knowledge relevant to the discipline **InTASC 5**	The evidence indicates that the candidate does not or infrequently demonstrates accurate and essential knowledge, understanding, and skill practice.	The evidence indicates that the candidate occasionally demonstrates accurate and essential knowledge, understanding, and skill practice.	The evidence indicates that the candidate regularly provides accurate and essential knowledge, understanding, and skill practice.	The evidence indicates that the candidate consistently and effectively provides accurate and essential knowledge, understanding, and skill practice.
InTASC Cateory: Instructional Practice				
22. Creates lessons that encourage students to think creatively and critically and to solve problems **InTASC 8**	The evidence indicates that the teacher does not or infrequently engages students in thinking creatively and critically to solve problems.	The evidence indicates that the candidate attempts to engage students in thinking creatively and critically to solve problems.	The evidence indicates that the candidate regularly engages students in thinking creatively and critically to solve problems.	The evidence indicates that the teacher consistently and effectively engages students in thinking creatively and critically to solve problems.

23. Develops clear lesson plans which include objectives, materials, activities, adaptations/modifications and evaluation techniques based on the curriculum **InTASC 7**	The evidence indicates that the candidate does not or infrequently develops clear lesson plans which may or may not include objectives, materials, activities, adaptations/modifications and evaluation techniques based on the curriculum.	The evidence indicates that the candidate inconsistently develops clear lesson plans which may or may not include objectives, materials, activities, adaptations/modifications and evaluation techniques based on the curriculum.	The evidence indicates that the candidate regularly develops clear lesson plans which include objectives, materials, activities, adaptations/modifications and evaluation techniques based on the curriculum.	The evidence indicates that the candidate consistently and effectively develops clear lesson plans which include objectives, materials, activities, adaptations/modifications and evaluation techniques based on the curriculum.
24. Develops clear long-term instruction plans (e.g. units and/or modules) which include objectives, materials, activities, adaptations/modifications and evaluation techniques based on the curriculum **InTASC 7**	The evidence indicates that the candidate does not or infrequently develops clear long-term instruction plans which may or may not include objectives, materials, activities, adaptations/modifications and evaluation techniques based on the curriculum.	The evidence indicates that the candidate inconsistently develops clear long-term instruction plans which may or may not include objectives, materials, activities, adaptations/modifications and evaluation techniques based on the curriculum.	The evidence indicates that the candidate regularly develops clear long-term instruction plans which include objectives, materials, activities, adaptations/modifications and evaluation techniques based on the curriculum.	The evidence indicates that the candidate consistently and effectively develops clear long-term instruction plans which include objectives, materials, activities, adaptations/modifications and evaluation techniques based on the curriculum.
25. Selects materials and activities consistent with the objectives of the lesson and students' diverse abilities resulting in appropriate adaptations and modifications **InTASC 7**	The evidence indicates that the candidate does not or infrequently uses strategies for differentiating instruction.	The evidence indicates that the candidate incorporates limited strategies to differentiate instruction.	The evidence indicates that the candidate regularly uses strategies to differentiate and scaffold information so it is accessible to all students.	The evidence indicates that the candidate consistently and effectively incorporates strategies to differentiate and scaffold information so it is accessible to all students.
26. Applies the appropriate scope and sequence of objectives for teaching the curriculum (national, state and/or local standards) **InTASC 7**	The evidence indicates that the candidate does not or infrequently applies the appropriate scope and sequence of objectives for teaching the curriculum (national, state and/or local standards).	The evidence indicates that the candidate inconsistently applies the appropriate scope and sequence of objectives for teaching the curriculum (national, state and/or local standards).	The evidence indicates that the candidate regularly applies the appropriate scope and sequence of objectives for teaching the curriculum (national, state and/or local standards).	The evidence indicates that the candidate consistently and effectively applies the appropriate scope and sequence of objectives for teaching the curriculum (national, state and/or local standards).
27. Uses available educational technologies for effective instruction **InTASC 7**	The evidence indicates that the candidate does not or infrequently uses available technologies to engage students in the learning process.	The evidence indicates that the candidate occasionally uses available technology to engage and challenge students.	The evidence indicates that the candidate regularly uses a variety of available technology to engage and challenge students in a variety of learning situations.	The evidence indicates that the candidate consistently and effectively uses a variety of available technology to engage and challenge students in a variety of learning situations.

28. Provides opportunities for all students to successfully apply or practice knowledge and skills learned **InTASC 8**	The evidence indicates that the candidate does not or infrequently provides relevant experiences for students to apply instruction.	The evidence indicates that the candidate provides limited relevant experiences for students to apply instruction.	The evidence indicates that the candidate regularly provides relevant experiences for students to apply instruction.	The evidence indicates that the candidate consistently and effectively provides relevant experiences for students to apply instruction.
29. Designs assessments that align with learning objectives **InTASC 6**	The evidence indicates that the candidate does not or infrequently designs assessments that align with learning objectives.	The evidence indicates that the candidate attempts to design assessments that align with learning objectives.	The evidence indicates that the candidate regularly designs assessments that align with learning objectives.	The evidence indicates that the candidate consistently and effectively designs assessments that align with learning objectives.
30. Effectively uses multiple and appropriate types of assessment data to identify each student's learning needs and to develop differentiated learning experiences **InTASC 6**	The evidence indicates that the candidate does not or infrequently uses appropriate types of assessment data to identify each student's learning needs and to develop differentiated learning experiences.	The evidence indicates that the candidate attempts to use assessment data to identify each student's learning needs and to develop differentiated learning experiences.	The evidence indicates that the candidate regularly uses multiple and appropriate types of assessment data to identify each student's learning needs and to develop differentiated learning experiences.	The evidence indicates that the candidate consistently and effectively uses multiple and appropriate types of assessment data to identify each student's learning needs and to develop differentiated learning experiences.
31. Makes changes in instruction based on feedback from multiple classroom assessment sources **InTASC 7**	The evidence indicates that the candidate does not or infrequently makes changes in instruction based on feedback from multiple classroom assessment sources.	The evidence indicates that the candidate occasionally makes changes in instruction based on feedback from multiple classroom assessment sources.	The evidence indicates that the candidate regularly makes changes in instruction based on feedback from multiple classroom assessment sources.	The evidence indicates that the candidate consistently and effectively makes changes in instruction based on feedback from multiple classroom assessment sources.
32. Gives constructive and frequent feedback to students on their learning **InTASC 6**	The evidence indicates that the candidate does not or infrequently provides feedback to students and/or provides non-constructive feedback.	The evidence indicates that the candidate provides some constructive feedback to students.	The evidence indicates that the candidate regularly provides timely feedback to encourage students to take responsibility for their own learning.	The evidence indicates that the candidate consistently and effectively provides timely feedback to encourage students to take responsibility for their own learning.
33. Balances the use of formative and summative assessment as appropriate to support, verify and document learning **InTASC 6**	The evidence indicates that the candidate does not or infrequently uses appropriate formative and/or summative assessments to document student learning.	The evidence indicates that the candidate attempts to use formative and summative assessments appropriately to document student learning.	The evidence indicates that the candidate appropriately balances the use of formative and summative assessments to document student learning.	The evidence indicates that the candidate consistently and effectively balances the use of formative and summative assessments to appropriately document student learning.

34. Accomplishes smooth and orderly transitions between parts of the lesson **InTASC 8**	The evidence indicates that the candidate does not or infrequently accomplishes smooth and orderly transitions between parts of the lesson.	The evidence indicates that the candidate occasionally accomplishes smooth and orderly transitions between parts of the lesson.	The evidence indicates that the candidate regularly accomplishes smooth and orderly transitions between parts of the lesson.	The evidence indicates that the candidate consistently and effectively accomplishes smooth and orderly transitions between parts of the lesson.
35. Communicates clearly to all students the objective and purpose of each lesson **InTASC 8**	The evidence indicates that the candidate does not or infrequently communicates the objective and purpose of each lesson to students.	The evidence indicates that the candidate attempts to communicate the objective and purpose of each lesson.	The evidence indicates that the candidate regularly communicates clearly the objective and purpose of each lesson.	The evidence indicates that the candidate consistently and clearly communicates to all students the objective and purpose of each lesson.
36. Conducts class with poise, confidence and enthusiasm	The evidence indicates that the candidate conducts class with little or no poise, confidence and enthusiasm.	The evidence indicates that the candidate conducts class with a growing level of poise, confidence and enthusiasm.	The evidence indicates that the candidate regularly conducts class with poise, confidence and enthusiasm.	The evidence indicates that the candidate consistently and effectively conducts class with poise, confidence and enthusiasm.
37. Maximizes instructional learning time by working with students individually as well as in small or whole groups **InTASC 8**	The evidence indicates that the teacher does not or infrequently increases instructional learning time by working with students individually, in small groups or whole groups.	The evidence indicates that the candidate occasionally increases instructional learning time by working with students individually, in small groups or whole groups.	The evidence indicates that the candidate regularly maximizes instructional learning time by working with students individually as well as in small or whole groups.	The evidence indicates that the teacher consistently and effectively maximizes instructional learning time by working with students individually as well as in small or whole groups.
38. Gives clear directions **InTASC 8**	The evidence indicates that the candidate does not or infrequently gives clear directions.	The evidence indicates that the candidate inconsistently gives clear directions.	The evidence indicates that the candidate regularly gives clear directions.	The evidence indicates that the candidate consistently and effectively gives clear directions.
39. Provides focus on important points and checks for understanding **InTASC 8**	The evidence indicates that the teacher does not or infrequently provides focus on important points and checks for understanding.	The evidence indicates that the candidate provides limited focus on important points and occasionally checks for understanding.	The evidence indicates that the candidate regularly provides focus on important points and checks for understanding.	The evidence indicates that the candidate consistently and effectively provides focus on important points and checks for understanding.
40. Uses a variety of effective and appropriate instructional strategies and resources **InTASC 8**	The evidence indicates that the candidate relies on a single teaching approach and resource.	The evidence indicates that the candidate incorporates some teaching approaches and resources.	The evidence indicates that the candidate uses a variety of teaching approaches and resources.	The evidence indicates that the candidate consistently and effectively uses a wide variety of teaching approaches and resources.
41. Encourages participation from all students through effective questioning strategies (e.g., equal distribution, level variation, adequate wait time, probing and clue giving, and appropriate correctives and feedback) **InTASC 8**	The evidence indicates that the teacher does not or infrequently encourages participation from all students through effective questioning strategies.	The evidence indicates that the candidate occasionally encourages participation from all students through effective questioning strategies.	The evidence indicates that the candidate regularly encourages participation from all students through effective questioning strategies.	The evidence indicates that the teacher consistently and effectively encourages participation from all students through effective questioning strategies.
42. Presents lessons in a clear, logical and sequential manner **InTASC 7**	The evidence indicates that the candidate does not or infrequently presents lessons in a clear, logical and sequential manner.	The evidence indicates that the candidate occasionally presents lessons in a clear, logical and sequential manner.	The evidence indicates that the candidate regularly presents lessons in a clear, logical and sequential manner.	The evidence indicates that the candidate consistently and effectively presents lessons in a clear, logical and sequential manner.
InTASC Cateory: Professional Responsibility				
43. Models and teaches safe, legal and ethical use of information and technology **InTASC 9**	The evidence indicates that the candidate does not or infrequently models or teaches safe, legal and ethical use of information and technology.	The evidence indicates that the candidate inconsistently models and teaches safe, legal and ethical use of information and technology.	The evidence indicates that the candidate regularly models and teaches safe, legal and ethical use of information and technology.	The evidence indicates that the candidate consistently and effectively models and teaches safe, legal and ethical use of information and technology.
44. Demonstrates maturity and accepts constructive criticism in a positive manner **InTASC 9**	The evidence indicates that the candidate does not or infrequently demonstrates maturity and accepts constructive criticism in a positive manner.	The evidence indicates that the candidate demonstrates a growing level of maturity and is learning to accept constructive criticism in a positive manner.	The evidence indicates that the candidate regularly demonstrates maturity and accepts constructive criticism in a positive manner.	The evidence indicates that the candidate consistently demonstrates maturity and accepts constructive criticism in a positive manner.
45. Knows and follows school policies and shares in the general responsibilities and duties associated with teaching (e.g., attendance, discipline, hall duty) **InTASC 9**	The evidence indicates that the candidate does not or infrequently follows school policies or shares in the general responsibilities and duties associated with teaching.	The evidence indicates that the candidate is beginning to learn and follow school policies and share in the general responsibilities and duties associated with teaching.	The evidence indicates that the candidate regularly follows school policies and shares in the general responsibilities and duties associated with teaching.	The evidence indicates that the candidate consistently and effectively follows school policies and shares in the general responsibilities and duties associated with teaching.
46. Listens carefully to all students then responds in a professional manner	The evidence indicates that the candidate does not or infrequently listens carefully to students and/or responds in a professional manner.	The evidence indicates that the candidate inconsistently listens carefully to students then responds in a professional manner.	The evidence indicates that the candidate regularly listens carefully to students then responds in a professional manner.	The evidence indicates that the candidate consistently and effectively listens carefully to all students then responds in a professional manner.

Appendix B

InTASC Categories and Standards	
Categories	**Standards**
1: The Learner and Learning	1. Learner Development 2. Learning Differences 3. Learning Environments
2: Content Knowledge	4. Content Knowledge 5. Application of Content
3: Instructional Practice	6. Assessment 7. Planning for Instruction 8. Instructional Strategies
4: Professional Responsibility	9. Professional Learning and Ethical Practice 10. Leadership and Collaboration

Appendix C

COE Field Evaluation Instrument Content Validity Study

1. THE LEARNER AND LEARNING Professional educators must understand that learning and development patterns vary among individuals, that learners bring unique individual differences to the learning process and that learners need supportive and safe learning environments to thrive.This category includes components of the following InTASC Standards:

Standard 1: Learner Development The teacher understands how learners grow and develop, recognizing that patterns of learning and development vary individually within and across the cognitive, linguistic, social, emotional, and physical areas, and designs and implements developmentally appropriate and challenging learning experiences.

Standard 2: Learning Differences The teacher uses understanding of individual differences and diverse cultures and communities to ensure inclusive learning environments that enable each learner to meet high standards.

Standard 3: Learning Environments The teacher works with others to create environments that support individual and collaborative learning, and that encourage positive social interaction, active engagement in learning, and self-motivation.

Indicators	Number Essential	Percent Agreement	CVR
Plans and delivers developmentally appropriate instruction	20.00	100.00%	1.00
Consults a variety of sources (e.g., student records, counselors, resource specialists, parent conferences, test results, and other diagnostic tools) to determine the learning needs and capabilities of individual students	16.00	80.00%	0.60
Differentiates instruction appropriately for specific needs of learners	20.00	100.00%	1.00
Persists in helping all students achieve success	16.00	80.00%	0.60
Brings multiple perspectives to the discussion of content, including attention to learners' personal, family and community experiences and cultural norms DELETE (10.20.2016)	**14.00**	**70.00%**	**0.40**
Designs instruction to build on learners' prior knowledge and experiences	17.00	85.00%	0.70
Displays consistency in dealing with behavior in the least disruptive manner, utilizing appropriate positive and negative consequences	19.00	95.00%	0.90
Demonstrates positive rapport with a diverse student population	18.00	90.00%	0.80
Understands and respects a diverse student/parent population and helps all students learn respect for the traditions and cultures of others	16.00	80.00%	0.60
Uses appropriate nonverbal communication **KEEP BUT NOT TIED TO InTASC Reporting (10.20.2016)**	13.00	65.00%	0.30
Provides a learning environment which includes high time-on-task and active engagement	16.00	80.00%	0.60
Promotes a classroom environment that is caring and supportive to all students	17.00	85.00%	0.70
Organizes and maintains the physical environment of the classroom in a pleasant and orderly manner conducive to student learning and safety	17.00	85.00%	0.70
Monitors students' behaviors and activities in the classroom at all times	18.00	90.00%	0.80
Handles multiple tasks, intrusions and distractions while maintaining the flow of the lesson	16.00	80.00%	0.60
Teaches and reinforces classroom expectations, rules, routines and procedures fairly	18.00	90.00%	0.80
		CVI	**0.69**

2. CONTENT Professional educators must have a deep and flexible understanding of the field and be able to draw upon the central concepts and structures of their discipline as they work with learners. They integrate cross-disciplinary skills (e.g., critical thinking, problem solving, creativity and communication) to help learners apply content to propose solutions, forge new understandings, solve problems and imagine possibilities. Professional educators connect information to local, state, national and global issues.This category includes components of the following InTASC Standards:

Standard 4: Content Knowledge The teacher understands the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and creates learning experiences that make the discipline accessible and meaningful for learners to assure mastery of the content.

Standard 5: Application of Content The teacher understands how to connect concepts and use differing perspectives to engage learners in critical thinking, creativity, and collaborative problem solving related to authentic local and global issues.

Indicators	Number Essential	Percent Agreement	CVR
Demonstrates content area knowledge	19.00	95.00%	0.90
Keeps abreast of new ideas and understandings in the field MOVE TO PROFESSIONAL RESPONSIBILITY (10.20.2016)	**9.00**	**45.00%**	**-0.10**
Effectively uses multiple representations and explanations that capture key ideas in the discipline, guides learners through learning progressions and promotes each learner's achievements of content standards	16.00	80.00%	0.60
Engages students in learning experiences in the discipline(s) that encourage learners to understand, question and analyze ideas from diverse perspectives using standards of evidence	15.00	75.00%	0.50
Creates opportunities for students to learn and practice content language	19.00	95.00%	0.90
Provides a real world context for lesson content	18.00	90.00%	0.80
Demonstrates pedagogical knowledge relevant to the discipline	19.00	95.00%	0.90
		CVI	**0.64**

3. INSTRUCTIONAL PRACTICE Professional educators understand and integrate assessment, planning and instructional strategies in coordinated and engaging ways for effective practice. They understand how to design, implement, interpret and communicate results from a range of assessments.This category includes components of the following InTASC Standards:

Standard 6: Assessment The teacher understands and uses multiple methods of assessment to engage learners in their own growth, to monitor learner progress, and to guide the teacher's and learner's decision making.

Standard 7: Planning for Instruction The teacher plans instruction that supports every student in meeting rigorous learning goals by drawing upon knowledge of content areas, curriculum, cross-disciplinary skills, and pedagogy, as well as knowledge of learners and the community context.

Standard 8: Instructional Strategies The teacher understands and uses a variety of instructional strategies to encourage learners to develop deep understanding of content areas and their connections, and to build skills to apply knowledge in meaningful ways.

Answer Options	**Number Essential**	**Percent Agreement**	**CVR**
Creates lessons that encourage students to think creatively and critically and to solve problems	17.00	85.00%	0.70
Develops clear lesson plans which include objectives, materials, activities, adaptations/modifications and evaluation techniques based on the curriculum	19.00	95.00%	0.90
Develops clear long-term instruction plans (e.g. units and/or modules) which include objectives, materials, activities, adaptations/modifications and evaluation techniques based on the curriculum	18.00	90.00%	0.80
Selects materials and activities consistent with the objectives of the lesson and students' diverse abilities resulting in appropriate adaptations and modifications	19.00	95.00%	0.90
Applies the appropriate scope and sequence of objectives for teaching the curriculum (national, state and/or local standards)	19.00	95.00%	0.90
Uses available educational technologies for effective instruction	17.00	85.00%	0.70
Provides opportunities for all students to successfully apply or practice knowledge and skills learned	19.00	95.00%	0.90
Designs assessments that align with learning objectives	20.00	100.00%	1.00
Effectively uses multiple and appropriate types of assessment data to identify each student's learning needs and to develop differentiated learning experiences	19.00	95.00%	0.90
Maintains clear and reasonable work standards and due dates **DELETE ITEM (10.20.2016)**	13.00	65.00%	0.30
Makes changes in instruction based on feedback from multiple classroom assessment sources	19.00	95.00%	0.90
Gives constructive and frequent feedback to students on their learning	19.00	95.00%	0.90
Balances the use of formative and summative assessment as appropriate to support, verify and document learning	19.00	95.00%	0.90
Accomplishes smooth and orderly transitions between parts of the lesson	15.00	75.00%	0.50
Communicates clearly to all students the objective and purpose of each lesson	18.00	90.00%	0.80
Conducts class with poise, confidence and enthusiasm **KEEP BUT NOT TIED TO InTASC Reporting (10.20.2016)**	12.00	60.00%	0.20
Maximizes instructional learning time by working with students individually as well as in small or whole groups	16.00	80.00%	0.60
Gives clear directions	16.00	80.00%	0.60
Provides focus on important points and checks for understanding	17.00	85.00%	0.70

Uses a variety of effective and appropriate instructional strategies and resources	20.00	100.00%	1.00
Encourages participation from all students through effective questioning strategies (e.g., equal distribution, level variation, adequate wait time, probing and clue giving, and appropriate correctives and feedback)	18.00	90.00%	0.80
Presents lessons in a clear, logical and sequential manner	19.00	95.00%	0.90
		CVI	**0.76**

4. PROFESSIONAL RESPONSIBILITY Professional educators create and support safe, productive learning environments. They must engage in meaningful and intensive professional learning and self-renewal by regularly examining practice through ongoing study, self-reflection and collaboration. Professional educators contribute to accomplishing their school's mission and goals and demonstrate leadership by modeling ethical behavior, contributing to positive changes in practice and advancing their profession.This category includes components of the following InTASC Standards:

Standard 9: Professional Learning and Ethical Practice The teacher engages in ongoing professional learning and uses evidence to continually evaluate his/her practice, particularly the effects of his/her choices and actions on others (learners, families, other professionals, and the community), and adapts practice to meet the needs of each learner.

Standard 10: Leadership and Collaboration The teacher seeks appropriate leadership roles and opportunities to take responsibility for student learning, to collaborate with learners, families, colleagues, other school professionals, and community members to ensure learner growth, and to advance the profession.

Answer Options	**Number Essential**	**Percent Agreement**	**CVR**
Models and teaches safe, legal and ethical use of information and technology	15.00	75.00%	0.50
Demonstrates maturity and accepts constructive criticism in a positive manner	18.00	90.00%	0.80
Knows and follows school policies and shares in the general responsibilities and duties associated with teaching (e.g., attendance, discipline, hall duty)	18.00	90.00%	0.80
Listens carefully to all students then responds in a professional manner **KEEP BUT NOT TIED TO InTASC Reporting (10.20.2016)**	14.00	70.00%	0.40
Practices self-evaluation and reflection	19.00	95.00%	0.90
Maintains confidentiality at all levels	19.00	95.00%	0.90
Implements the recommendations from evaluations of professional performance	18.00	90.00%	0.80
Demonstrates effective interpersonal skills	15.00	75.00%	0.50
Maintains a consistently positive and professional demeanor	18.00	90.00%	0.80
Communicates effectively, appropriately and professionally in all forms and to all audiences	16.00	80.00%	0.60
		CVI	**0.70**

Total CVI	**0.72**