VIDEO AS A TOOL TO SUPPORT TEACHER PERFORMANCE EVALUATION PROCESS: IMPACT ON FIRST-YEAR TEACHER EFFECTIVENESS

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by

Jamie L. Thompson

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VIDEO AS A TOOL TO SUPPORT TEACHER PERFORMANCE EVALUATION PROCESS: IMPACT ON FIRST-YEAR TEACHER EFFECTIVENESS

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DEDICATION

I dedicate this work to my family. Your encouragement, understanding, and love afforded me the opportunity to achieve this dream. Thank you for standing beside me and pushing me when I thought I could go no further. To my Mom, although you are not here with us to celebrate, it is your words I hear the most. You believed in me first and I dedicate this to you.

ABSTRACT

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Research indicates that teacher performance is a critical focus for school districts, administrators, and teachers. Pre-service teacher preparation, teacher retention, job satisfaction, mentoring, continuous feedback, and onboarding support for new teachers are all factors that influence teacher performance (Carver-Thomas & Darling-Hammond, 2017). While teacher performance evaluations occur in all districts, the evaluation tools, appraisal components, methods, and procedures drastically differ. The variations in evaluations create inequities that may limit an appraiser's viewpoint of a teacher's performance, which can stifle the feedback an appraiser provides to the teacher (Jiang et al., 2015). It is this potentially limited viewpoint of the appraiser's feedback that prompted this study. In response, this study explored the integration of a video recording device to support continuous and enhanced accessibility, flexibility, and authentic appraiser feedback for first-year teachers.

This study used a descriptive quantitative correlational analysis to explore the relationship between the use of a video recording device and summative Texas Teacher Evaluation and Support System (T-TESS) evaluation scores of 4+1 TEACH first-year teachers. This research closely aligned theory to practice while examining the relationship between variables. The study analyzed the summative T-TESS evaluations of first-year 4+1 TEACH residents and the number of times each resident uploaded a video recording. As the researcher, I used a power analysis and descriptive bivariate correlational analysis to explore the relationships among data, making inferences about

the type of correlational research each variable combination presented (Creswell & Creswell, 2018; Field, 2018).

Overall, the findings indicate that the result of the correlational analysis allows us to reject the null hypothesis, proclaiming that there is positive correlational significance between the two variables. The statistically significant positive correlation between the uses of the video recording device and the summative T-TESS evaluation scores indicates that further research is necessary to determine if strengthening the variations in the use of the video recording device can increase the effect of the correlation between the two variables.

KEY WORDS: Teacher effectiveness; Video recording device; Correlational analysis; Teacher appraisal systems; Texas Teacher Evaluation Support System

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PREFACE

The research presented in this dissertation represents my passion for education and the development of novice teachers. As a lifelong educator, I am dedicated to improving teacher effectiveness. I have experienced first-hand the challenges of an ineffective teacher and the profound impact on student learning. I have also witnessed the beautiful exchange of effective teaching and student success.

I am grateful for all my experiences, both good and bad. I hope that this research will ignite conversations and influence educational reform for the betterment of future teachers, current teachers, and students alike. I recognize this research is in its infancy, but my hope is that its findings will be contagious and the reason for the improvement in the processes afforded novice teachers. Thank you to everyone who has encouraged me to pursue this research.

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CHAPTER I

Introduction

Research indicates that teacher performance is a critical focus for school districts, administrators, and teachers. Pre-service teacher preparation, teacher retention, job satisfaction, mentoring, continuous feedback, and onboarding support for new teachers are all factors that influence teacher performance (Carver-Thomas & Darling-Hammond, 2017). To measure teacher performance, appraisal systems like the Texas Teacher Evaluation and Support System (T-TESS) have been implemented to assess quality of instruction within any given classroom in the State of Texas. The results of the teacher performance assessment are used by administrators and teachers for the refinement of pedagogical practices to enhance instruction and learning for students (Holland, 2014; Jiang et al., 2015; Vandermolen & Meyer-Looze, 2021). While teacher performance evaluations occur in all districts, the evaluation tools, appraisal components, methods, and procedures drastically differ. The variations in evaluations create inequities that may limit an appraiser's viewpoint of a teacher's performance, which can stifle the feedback an appraiser provides to the teacher (Jiang et al., 2015). It is this potentially limited viewpoint of the appraiser's feedback that prompted this study. In response, this study explored the integration of a video recording device to support continuous and enhanced accessibility, flexibility, and authentic appraiser feedback for first-year teachers. While limited in scope, this study had the capacity to supply valuable information to support future research on the addition of supplementary evaluation elements to strengthen teacher performance appraisal feedback, conceivably allowing appraisers and teachers to

be intentional, innovative, and personalized with feedback and strategies to enhance individual professional growth.

Statement of the Problem

Historically, various systematic teacher appraisal evaluations have been conducted to determine teacher quality. More recently, the focus in these appraisal systems has largely shifted from a teacher-centered approach to a teacher- and student-centered approach. Respectively, in April 2016, the T-TESS, an appraisal system that rates teacher performance based on student engagement, a more teacher- and student-centered approach, was introduced to school districts across Texas. As stated by the Texas Education Agency (TEA, 2022a), T-TESS "strives to capture the holistic nature of teaching – the idea that a constant feedback loop exists between teacher and students and gauging the effectiveness of teachers requires a consistent focus on how students respond to their teacher's instructional practices" (para. 1).

There are three components to T-TESS: goal-setting and professional development plan, the evaluation cycle (pre-conference, observation, post-conference), and student growth measure. These components are assessed using a rubric specifically designed for T-TESS. The rubric includes four domains and 16 dimensions. The four domains included within the rubric are planning, instruction, learning environment, and professional practices and responsibilities. The dimension rubrics within each domain include specific descriptors of practices for five performance levels: distinguished, accomplished, proficient, developing, and improvement needed (TEA, 2022c).

While the T-TESS rubric takes a comprehensive approach in evaluating teacher performance, the way in which evaluations are performed poses a concern. Traditionally,

teacher evaluations have included classroom observations by a school administrator, combined with student performance achievement data, typically test-based measures (Ballou & Springer, 2015; Jiang et al., 2015). Under T-TESS guidelines, school administrators conduct one 45-minute formal classroom observation per academic school year and several informal 15-minute classroom walk-throughs (TEA, 2022c). Both a pre-conference and a post-conference are conducted between the teacher and administrator for the formal classroom observation. During the pre-conference, the teacher and administrator focus on the formal lesson to be observed. During this meeting, the administrator can ask guiding questions to prompt the teacher to ensure the lesson is student-centered and exhibits strong pedagogical practices. The post-conference is held after the 45-minute observation, typically occurring within two weeks. During the post-conference, the teacher is asked to reflect on their lesson, to identify strengths and weaknesses within the lesson, and to set goals for professional growth related to their reflection. During the post-conference, the teacher is provided feedback and instructional coaching from the administrator. This small amount of classroom exposure potentially limits the type of feedback provided to teachers. The modest timeframes allowed for classroom observations and evaluation measures, and feedback focused on a time-stamped window of observation, may not allow an accurate instructional picture for administrators to personalize the feedback for teachers (Beaird et al., 2017; Borich, 2000; Dag & Sari, 2017; Danielson, 2011; Goe et al., 2008). This is concerning, given that the purpose of teacher evaluations is the refinement of the pedagogical practices to enhance instruction and learning for students (Holland, 2014; Jiang et al., 2015; Vandermolen & Meyer-Looze, 2021).

Research indicates that teacher quality has a direct impact on student learning. In fact, Wiliam (2016) reports that effective teachers have a 50% increase in student learning over average teachers and a 100% increase in learning over poor teachers. These findings imply that students in an average teacher's class will take one year to learn what students in an effective teacher's class will learn in a six-month timeframe. More profoundly stated, students in a poor teacher's classroom will learn in two years what students in an effective teacher's class will learn in six months. Wiliam (2016) also points out that the qualities between effective and ineffective teachers are complex, not clearly defined, and vary tremendously. The challenge then becomes determining what can be done to improve the current teacher appraisal system that would allow flexibility, authentic and continuous feedback, and refinement of pedagogical practices. If the goal of evaluations is truly to refine pedagogical practices to improve instruction and student learning, there must be an appraisal system in place that fosters authentic feedback and flexibility for the feedback to be given continually.

Due to the variations and complexity of teaching, a shift in the trends associated with teacher performance appraisals shows an emphasis on an improvement framework stance, as opposed to an evaluation improvement stance. At the center of this improvement framework stance is flexibility and authentic feedback (Holland, 2014; Jiang et al., 2015; Vandermolen & Meyer-Looze, 2021; Wiliam, 2016). However, trends in research indicate revisions to the current teacher appraisal system may still be warranted, including offering accessibility to a variety of instructional instances, allowing the teacher and appraiser intentional flexibility for when and what lessons are evaluated, and including opportunities to provide authentic feedback related to strengths and

weaknesses to foster professional growth (Fradkin-Hayslip, 2021; Goldstein, 2014; Hawthorne, 2021; Holland, 2014; Jiang et al., 2015; Moir, 2009). Specifically, a video-recording device could be incorporated in the evaluation process as an added tool to facilitate enhanced teacher performance, though there is minimal research documenting the results of the inclusion of a video-based recording device within the appraisal process available at this time.

Theoretical Framework

Long standing research has established a connection between teacher autonomy, motivation, and job satisfaction. Having the ability to make independent choices, being in control of instructional related issues, and sharing in the decision-making processes are all present in an environment that fosters these connections (Deci, 2009; Fradkin-Hayslip, 2021; Goe et al., 2008). Use of a video recording device in the evaluation process of first-year teachers could provide them with a collaborative tool to be intentional in the evaluation of their pedagogical practices.

Motivational in nature, self-determination theory intertwines autonomy, motivation, and satisfaction with competence and relatedness. The idea that the combination of these components fosters psychological well-being and encourages intrinsic motivation is critical when examining teacher performance and the measures used within the evaluation processes (Fradkin-Hayslip, 2021). Deci (2009) suggests a school reform approach through the lens of self-determination theory, one that cultivates a relationship between school administrators and faculty. This relationship should elicit positive improvements in teaching and learning through autonomous relationships and the ability to evaluate, suggest changes, and make decisions based on experiences. The

implementation of a video recording device in the appraisal structure can support the collaborative process (Deci, 2009; Fradkin-Hayslip, 2021).

Purpose of Study

While conducting this research, I was a doctoral fellow for the 4+1 TEACH program. I had an active role in the collection of the archival data used in this study. I was involved with all aspects of the program, from the admission of teacher residents to analyzing data collected based on program expectations. I was aware of the types of data collected, as well as the expectations of teacher residents regarding the use of a video recording device. I had firsthand knowledge about the recording device, the appraisal expectations, and the professional development provided to teacher residents.

The purpose of this descriptive quantitative correlational analysis was to explore the relationship that existed between the number of uses of a video recording device and teacher performance measured by the T-TESS for first-year teachers. This research closely aligned theory to practice, examining the relationship between the number of times a first-year teacher uses a video recording device to record their teaching practices and the effects on teacher performance in the first year of teaching.

Research Question and Hypothesis

The following research question extends the research on supporting first-year teachers. The research question that was addressed in this study was:

RQ1: Does a relationship exist between the number of uses of a video recording device and teacher performance measured by the Texas Teacher Evaluation and Support System (T-TESS) for first-year teachers?

$H1_A$: There is a statistically significant relationship between the number of uses

of a video recording device and teacher performance measured by T-TESS for first-year teachers.

$H1_0$: There is not a statistically significant relationship between the number of uses of a video recording device and teacher performance measured by T-TESS for first-year teachers.

Significance of Study

Previous research regarding teacher appraisals has focused on elevating student performance, increasing teacher retention, and improving teacher performance using feedback (Fradkin-Hayslip, 2021; Goldstein, 2014; Hawthorne, 2021; Holland, 2014; Jiang et al., 2015; Moir, 2009). The literature identifies barriers to effective teacher appraisals, such as time, anxiety, autonomy, flexibility, and consistency, and although studies aimed at improving teacher appraisals have been conducted, the research is still lacking (Fradkin-Hayslip, 2021; Goldstein, 2014; Hawthorne, 2021; Holland, 2014; Jiang et al., 2015; Lebak, 2017; McCoy et al., 2018; Moir, 2009; Wiliam, 2016). Limited research is available on the use of video recording devices as a tool to strengthen the feedback and appraisal process (Lebak, 2017; McCoy et al., 2018; Wiliam, 2016). Taking into consideration TEA's (2022a) intent of developing the T-TESS appraisal system to "capture the holistic nature of teaching – the idea that a constant feedback loop exists between teacher and students and gauging the effectiveness of teachers requires a consistent focus on how students respond to their teacher's instructional practices" (para. 1), the implementation of a video recording device could also offer the ability to capture real time teaching rather than a scheduled, regimented observation, which is the current practice. Therefore, this study's primary significance lies in extending the body of

research regarding teacher appraisal to include consideration of the potential impact that the application of a video recording device in the appraisal process may have on first-year teacher performance.

Definition of Terms

The following terms and definitions are provided to assist readers with understanding the context as they relate to this research study.

4+1 TEACH Program

An accelerated advanced degree program at Sam Houston State University that allows teacher candidates to earn a four-year bachelor's degree, a two-year master's degree, and a teaching certification within a five-year period (Sam Houston State University, 2022).

Full Release Mentor (FRM)

A mentor "who (a) is completely released from classroom teaching duties; (b) has at least 10 years of creditable teaching experience in the grade level/subject of the resident; (c) has been a highly effective educator as evidenced by student learning; and (d) is passionate about supporting novice teachers. The FRMs have weekly contact with their residents and carry the primary responsibility of supporting residents in implementing effective classroom management procedures, routines, and instructional practices and implementing evidence-based instructional practices" (Edmonson et al., 2018, p. 8).

Site Based Mentor (SBM)

A mentor "who meets the following criteria: (a) teaches on the same campus and in the same grade level/subject as the resident; (b) has at least 3 years of creditable teaching experience; (c) is a highly effective educator as evidenced by student learning; and (d) is committed to mentoring the next generation of teachers" (Edmonson et al., 2018, p. 8).

Teacher Effectiveness

A teacher's ability to plan, implement, and assess curriculum using instructional strategies that promote student learning and achievement, receiving a score of proficient or higher on T-TESS performance rubrics (Stronge et al., 2011; TEA, 2022c).

Teacher Mentoring

As defined for this study, teacher mentoring and teacher coaching represent the support provided to teachers by an experienced educator (Dag & Sari, 2017; Dominguez, 2017; Iancu-Haddad & Oplatka, 2009; Lein, 2022).

Teacher Resident

As defined for this study, a teacher resident is a participant of the 4+1 TEACH program. Teacher resident refers to the target group of teachers included in the archival data used for this study.

Teacher Retention

The ability to retain teachers in the field of education (Hawthorne, 2021).

Video Recording Device

A video recording device used by the teacher resident to seek opportunities for reflection, coaching, and collaboration. A Swivl™ robot was the video recording device used by the 4+1 TEACH program.

Assumptions

This study considered the assumptions of the original study where the data were procured. The assumptions aligned with ontological and epistemological views of quantitative research (Creswell & Creswell, 2018). Ontological assumptions of the quantitative research conducted were based on realism and positivism. The data collected were accurately reported based on teacher performance and the use of a video recording device and its impact on teacher performance. In addition, this study recognized that quantitative research shares a common goal of using statistical analysis to help researchers make inferences among variables and generalizations about a broader population (Creswell & Creswell, 2018). Epistemological assumptions for quantitative research were based on a constructivist approach. The constructivist approach recognized that learners construct their own knowledge based on prior experiences and form schemas for assimilation and association of knowledge (Shah, 2019).

Assumptions considered for this study were teacher preparation, evaluator credentials, access to a video recording device, and timeframe for data collection. Assumptions regarding participant training through the same education preparation program were considered, along with the consideration that all of the target group of teacher residents received training through the Sam Houston State University Education Preparation program and met all admission requirements to be accepted into the 4+1

TEACH program. Assumptions regarding the requirements of the T-TESS evaluators were considered. All evaluators participated in a formal T-TESS evaluation system training and were certified as T-TESS appraisers. Assumptions regarding access to the video recording device were considered. All of the target group of teacher residents were provided the same video recording device with training and access to a common cloud-based storage site. Unlimited storage space and access were granted to all of the target group of teacher residents. Additionally, assumptions regarding the timeframe the T-TESS evaluations were collected were also considered. The summative T-TESS evaluation scores for each participant were reviewed within their first year of teaching.

Limitations

Limitations that were considered for this study included a small sample size, recognition of the validity and reliability of T-TESS evaluators, and the school demographics where 4+1 TEACH residents were employed. The target group of teachers in this study were all residents of the 4+1 program, limiting the number of the target group of teacher residents analyzed. The 4+1 TEACH program accepted no more than 45 residents per cohort group, limiting the number of the target group of teacher residents that could be included in the study. In addition, the schools the 4+1 TEACH residents were employed were limited to the partnering districts within the 4+1 TEACH program, limiting the diversity of demographic locations (rural, suburban, urban) of the schools.

Delimitations

The 4+1 TEACH program required a rigorous three-round admissions process and selected no more than 45 residents per cohort. The admission process occurred twice per year, allowing no more than 90 possible residents each academic year. The sample population was required to meet the following criteria:

- Round One
    - an undergraduate grade point average (GPA) of 3.25 or higher
    - three letters of reference
    - a writing sample
    - a passing score for all Texas Examination of Education Standards (TExES) practice exams
    - 120 semester hours
- Round Two
    - a group interview with program facilitators
    - an observed writing sample
    - a 20-to-30-minute teaching video (scored in Round Three if applicant advances)
- Round Three
    - a passing score for all required Texas Examination of Education Standards (TExES) exams related to certification
    - a proficient score in all areas of the T-TESS rubric for the teaching video submitted in Round Two

As a result, this sample population may not be representative of the larger population of teachers using a video recording device. A larger population that includes first-year teachers using a video recording device may be considered for further perspective and information regarding the relationship of the video recording device on teacher performance.

Summary

Teacher performance is evaluated within every school district. The variations in appraisal components, tools, methods, and procedures pose challenges to the accessibility, flexibility, and authentic feedback necessary for teachers' professional growth (Deci, 2009; Fradkin-Hayslip, 2021; Jiang & Luppescu, 2015; Wiliam, 2016). These challenges may be mitigated by implementing a video recording device in the evaluation process to foster a more cohesive teacher-evaluator interaction.

Chapter II, Literature Review, examines the history of teacher performance evaluations, the measures taken by teacher education preparation programs to prepare first-year teachers, the uses of video recording devices within education, teacher retention, and proven strategies that foster a strong mentoring relationship. Chapter III, Methods, provides a descriptive quantitative correlational analysis of the data that were collected and the measures that were used to ensure validity and reliability.

CHAPTER II

Literature Review

The literature review is organized under three major topics: teacher effectiveness, teacher performance evaluation measures and processes, and teacher mentoring. The importance and the complex qualities of teacher effectiveness are described in detail, highlighting the relevance of teacher effectiveness as it relates to hiring and recruiting effective teachers and understanding pre-service teacher skill sets, student academic impacts, authentic professional development plans, alignment to teacher evaluation tools, and the dismissal of ineffective teachers (Borich, 2000; Goe et al., 2008; Hepsibha & Catherine, 2022; Hough & Duncan, 1970; Killion & Hirsh, 2011; Little et al., 2009; Stronge et al., 2011; Wiliam, 2016). Teacher performance evaluation measures, the history of measuring teacher performance, the various performance evaluation systems, the T-TESS evaluation system, and teacher evaluations connected to teacher retention are all evaluated in depth. The complexity of teacher performance measures is examined, with a closer look at the *Framework for Teaching Evaluation Instrument* (FFT) introduced in 1996 by Charlotte Danielson. Standards for evaluating teacher effectiveness used in Michigan, Ohio, and Texas are also described, along with the T-TESS evaluation instrument used in Texas schools (Danielson, 2011; Goe et al., 2008; Greenville City Schools, 2013; Hepsibha & Catherine, 2022; Killion & Hirsh, 2011; Little et al., 2009; Michigan Department of Education, 2022; Region 13 Service Center, 2020; TEA, 2022c; US Department of Education, 2022).

In the final focus of the literature review, teacher mentoring is deeply explored, with a spotlight on the history of mentoring, mentoring novice teachers through the evaluation process, mentoring with a video recording device, and various recording devices used to support novice teachers. Mentoring of a novice teacher can provide a pivotal support structure, contributing to the effectiveness of the teacher, the academic success of students, and the retention of novice teachers (Dag & Sari, 2017; Ewing, 2021 Iancu-Haddad & Oplatka, 2009; Lein, 2022; NEA, 2019; TEA, 2022c; Pitton, 2006; Vandermolen & Meyer-Looze, 2021). Integrating technology devices, such as a video recording tools, provides additional support for novice teachers, mentors, and administrators (Swivl, n.d.; Swivl, 2022; Vandermolen & Meyer-Looze, 2021).

Teacher Effectiveness

An extensive review of the literature on teacher effectiveness, ways to measure teacher effectiveness, the teacher performance evaluation process, and teacher mentoring was conducted to establish the relevance of this study. The attributes of effective teaching have been researched for decades, establishing a basis for which administrators make decisions about the knowledge and skill set pre-service teachers should possess, the recruitment of effective teachers, the development, design, and implementation of authentic and relevant professional development, the execution of reliable teacher evaluations, and the dismissal of ineffective educators (Hepsibha & Catherine, 2022; Stronge et al., 2011). Administrators recognize that teacher effectiveness has a direct impact on student achievement; therefore, a shift to emphasize the importance of the parallel between teacher effectiveness and various facets of teacher education is evident

in the literature (Hepsibha & Catherine, 2022; Killion & Hirsh, 2011; Stronge et al., 2011; Wiliam, 2016).

Importance of Teacher Effectiveness

Teacher effectiveness has a direct impact on students' success in the classroom. The impact extends beyond academics, encapsulating the physical, intellectual, behavioral, and social-emotional well-being of each student (Hepsibha & Catherine, 2022; Killion & Hirsh, 2011; Wiliam, 2016). Research indicates that teacher quality has a direct impact on student learning. In fact, Wiliam (2016) reports that effective teachers have a 50% increase in student learning over average teachers and a 100% increase in learning over poor teachers. These findings imply that students in an average teacher's class will take one year to learn what students in an effective teacher's class will learn in a six-month timeframe. More profoundly stated, students in a less competent teacher's classroom will learn in two years what students in an effective teacher's class will learn in six months.

Qualities of Teacher Effectiveness

Wiliam (2016) points out that the qualities between effective and ineffective teachers are complex, not clearly defined, and vary tremendously. Spanning decades, teacher effectiveness has been defined in a multitude of ways. Hough and Duncan (1970) define effective teaching as "an activity, a novel skilled, rational and human action within which one creatively and imaginatively uses himself and his information to push the training and welfare to others" (p. 78). Borich (2000) offers five responsibilities exhausted by effective teachers, which include student and teacher engagement in the learning process, lesson clarity, variety of instructional strategies, teacher-task

management, and increased student success rates. Killion and Hirsh (2011) identify ten characteristics of teacher effectiveness, stating that effective teachers demonstrate:

- different methods of teaching
- visual aids incorporated with moral prestige and intellectual depth
- a sense of humor
- all-round personality
- confidence
- the development of good relationships with others
- a well-managed classroom
- the ability to stimulate and motivate pupils
- clear explanations
- resourcefulness in providing varied experiences (Killion & Hirsh, 2011, p. 2116)

Stronge et al. (2011) recognize that teacher effectiveness is an elusive concept to clearly define due to the complex nature of teaching and the infinitude of contexts in which teachers teach. They focused on teacher effectiveness based on student achievement, identifying four dimensions to categorize teacher effectiveness:

- effective teaching practice, including instructional effectiveness
- the use of assessment for student learning
- positive learning environment
- personal qualities of the teacher (Stronge et al., 2011, p. 340)

For decades, administrators and policymakers have worked to implement policies and procedures to ensure the highest quality education for all students. In 2007, The No Child Left Behind (NCLB) Act was implemented to help ensure school districts across

the United States were hiring high-quality teachers. The NCLB Act defined a highly qualified teacher as a teacher with a bachelor's degree, full certification, and the ability to demonstrate adequate content knowledge in every subject area taught (US Department of Education, 2007). The mandate from the NCLB Act was that all teachers must meet these minimum federal standards to be employed within a public school entity. However, a flaw in this mandate quickly emerged. Research indicated that a highly qualified teacher is not indicative of an effective teacher (Goe et al., 2008; Little et al., 2009). It is this revelation that sparked the research of Little et al. (2009). Goe et al. (2008) worked to establish a working definition of teacher effectiveness that could be clearly defined, measurable, and influential in developing education policy. The definition includes five points (Goe et al., 2008, p. 8):

- Effective teachers have high expectations for all students and help students learn, as measured by value-added or other test-based growth measures or by alternative measures.
- Effective teachers contribute to positive academic, attitudinal, and social outcomes for students, such as regular attendance, on-time promotion to the next grade, on-time graduation, self-efficacy, and cooperative behavior.
- Effective teachers use diverse resources to plan and structure engaging learning opportunities; monitor student progress formatively, adapting instruction as needed; and evaluate learning using multiple sources of evidence.
- Effective teachers contribute to the development of classrooms and schools that value diversity and civic-mindedness.

- Effective teachers collaborate with other teachers, administrators, parents, and education professionals to ensure student success, particularly the success of students with special needs and those at high risk for failure.

As the literature suggests, a clearly defined definition of teacher effectiveness is complex and varies between studies. Taking into consideration the commonalities among the characteristics, it is clear that how teacher effectiveness is defined has a direct impact on how it is perceived and measured and its influence on educational reform. Due to the nature of its complexity and the potential impact on student learning, it is necessary that researchers cultivate a working definition that embodies measurable characteristics and emphasizes that effectiveness should include fostering collaboration; implementing a variety of teaching strategies; developing positive teacher, parent, and student working relationships; assessing teacher performance using teacher evaluation systems that showcase authentic teaching and learning at various increments throughout the academic year; and offering authentic assessments for students (Goe et al., 2008; Killion & Hirsh, 2011; Little et al., 2009; Stronge et al., 2011; Wiliam, 2016).

Teacher Performance Evaluation Measures and Process

Just as teacher effectiveness is complex and difficult to clearly define, it is also challenging to measure. Various measures have been explored, including classroom observations, principal evaluations, instructional artifacts, teacher portfolios, teacher self-reports, value-added models, student evaluations, and standards-based evaluations (Danielson, 2011; Goe et al., 2008, Little et al., 2009). Not only are there various ways to measure teacher performance, but the evaluation tools used also differ.

History of Measuring Teacher Performance

In 1996, Charlotte Danielson (2011) introduced the *Framework for Teaching Evaluation Instrument* (FFT). This framework included four domains (Domain 1: Planning and Preparation; Domain 2: The Classroom Environment; Domain 3: Instruction; Domain 4: Professional Responsibilities), 22 components, and four levels of performance within each domain and component (unsatisfactory, basic, proficient, distinguished) that could be used to evaluate teacher effectiveness. In 2009, the Bill and Melinda Gates Foundation selected the FFT as one of the models used in the Measures of Effective Teaching (MET) research project. This project required the evaluation of more than 23,000 video-recorded lessons. To meet the needs of the research project, The Danielson Group created additional resources to be used in conjunction with the framework's domains and components. These additions included revisions to the rubric's language to provide a stronger correlation to the components, critical attributes that assist evaluators with proper alignment of levels of teacher performance, and possible examples of each level of performance (Danielson, 2011). The FFT was designed to enhance a teacher's professional practice. This framework is the basis for which many teacher performance evaluations have evolved to date, fostering support for teachers, and encouraging collaboration, inquiry, reflection, and innovation (The Danielson Group, 2022). The importance of the development of this framework is that it provides a common language of excellent teaching, a pathway for novice teachers to align their professional practices and enhance professional development opportunities that align with teacher needs (The Danielson Group, 2022).

Little et al. (2009) examined a multitude of teacher performance measures, including value-added models, classroom observations, principal evaluations, analysis of classroom artifacts, portfolios, self-report of practice, and student evaluations, forging a recommendation to be considered by states, districts, and organizations when creating teacher evaluation systems. Little et al. recommended that a comprehensive teacher evaluation system should be designed to include multiple measures of teacher performance, in contrast to the past systems that included only one or two isolated measures. The research revealed that the most used measure was classroom observation, with value-added models frequently utilized as well (Goe et al., 2008; Little et al., 2009). Research points out that it is not practical to include all measures above, but a teacher evaluation system should be dynamic in its ability to measure the many ways teachers make significant impacts on the well-being of their districts, campuses, classrooms, and students (Goe et al., 2008; Little et al., 2009).

Hepsibha and Catherine (2022) suggest that while qualitative in nature, there are no fixed conventions by which we study teacher effectiveness. They advocate that to measure teacher effectiveness, researchers must use a quantitative approach simulating a scale to measure "preparation of teaching, teacher communication, and presentation in the classroom, classroom engagement techniques, and their efforts to upgrade or improve teaching" (p. 2117). In support of Hepsibha and Catherine’s findings, researchers Killion and Hirsh (2011) state that "for teachers in the classroom, effective professional learning is the single most powerful pathway to promote continuous improvement in teaching" (para. 1). In April 2016, the Texas Teacher Evaluation and Support System (T-TESS) was introduced to school districts across Texas to address the cohesiveness of measuring

teacher performance. As an effort to strengthen the way teacher performance is measured in Texas, the T-TESS evaluation tool incorporates components for goal setting, professional development planning, student growth measures, and a cycle approach to the evaluation process, including a pre-conference, observation, and post-conference (TEA, 2022c).

Performance Evaluation Systems

Complexity and diversity among the types of teacher performance evaluation systems are evident across research. While the measures included within each system can vary drastically, one common goal is prominent in each tool: to improve teacher performance (Goe et al., 2008; Hepsibha & Catherine, 2022; Killion & Hirsh, 2011; Little et al., 2009). As Goe et al. (2008) point out, the system itself should be comprised of multiple measures that align with the contextual factors of the state, district, or campus that intends to implement the system. While all teachers must be assessed, the evaluation tool used is not the same. In fact, in many cases, school districts have a choice to adopt the state recommended evaluation tool or create their own evaluation tool.

In Michigan, the Department of Education (2022) provides five different observation tools administrators can select to evaluate teacher performance, including 5 Dimensions of Teaching and Learning (5D), Charlotte Danielson's Frameworks for Teaching, Marzano Teacher Evaluation Models, Michigan Transformational Evaluation Model, and The Thoughtful Classroom. Each observational tool utilizes different measurement criteria to assess teacher performance. To ensure reliability, the Michigan Department of Education provides administrators with an application and scoring guide (Michigan Department of Education, 2022).

In 2013, Ohio Greenville City schools adopted a teacher evaluation tool based on the Ohio Department of Education Teaching Standards. The teacher evaluation tool incorporates reflection, self-assessment, classroom demonstrations, and presentation of teaching artifacts. The evaluation process includes pre-conferences, classroom observations, and post-conferences. Evaluators are encouraged to clearly understand the Ohio Department of Education Professional Teacher Standards and to utilize the evaluation rubrics to assess levels of performance (Greenville City Schools, 2013).

Trends in teacher performance evaluation tools are similar in Texas. Over the past 20 years, the focus of teacher performance assessments has shifted. Twenty years ago, teachers were assessed using the Professional Development Appraisal System (PDAS). This appraisal system required administrators to conduct periodical walk-throughs and one formal in-class assessment (Region 13 Service Center, 2020). The appraisal's focus was on the teacher; student relevance was not addressed. In April 2016, the T-TESS was introduced to school districts across Texas. The focus of the new appraisal system was on teacher performance based on student engagement. This differed from the PDAS system, allowing for a more student- and teacher-centered approach. While the teacher performance measurement system shifted, the way it was administered did not, still requiring an administrator to be present in the room to conduct the appraisal (TEA, 2022c). For this study, the T-TESS evaluation tool was used to evaluate teacher performance for all the target group of teacher residents.

T-TESS Evaluation Tool

T-TESS was designed to reveal the comprehensive nature of teaching, encapsulating the essence of continual, evidence-based feedback between students and

teachers and gauging teacher effectiveness based on student response. With an overall focus of six broad performance standards (*Instructional Planning and Delivery, Knowledge of Students and Student Learning, Content Knowledge and Expertise, Learning Environment, Data-Driven Practice,* and *Professional Practices & Responsibility*), TEA (2022c) identified four domains to be assessed during the evaluation process using a rubric system. The four domains, *Planning, Instruction, Learning Environment,* and *Professional Practices & Responsibilities,* focus on both teachers and students. As seen in Appendix A, each domain has subcategories of assessment, identified as dimensions (TEA, 2022a). Five ratings, *Distinguished, Accomplished, Proficient, Developing,* and *Needs Improvement,* are assessed on the evaluation rubric for each dimension based on the level of student-centered actions versus teacher-centered actions. Higher levels of student-centered actions increase the performance rating. The performance ratings are then used by the evaluator as a common language to provide evidence-based feedback and develop a personalized professional development plan for the teacher (TEA, 2022c). While the evaluation tool approaches the process from a growth mindset, limitations still exist in relation to the narrow and potentially limited window of observation time.

Teacher Evaluation and Teacher Retention

Teacher performance has a direct impact on student performance and teacher retention. School districts across the nation are seeking effective measures to ensure high teacher retention occurs within their districts to foster high-quality instruction for students. Administrators are tasked with hiring high-quality, effective teachers and supporting teachers professionally through individualized professional development to

increase performance and retention. As early as 2001, researchers discovered that teacher attrition rates are amongst the highest across other professions (Ingersoll, 2001). Unfortunately, this remains true in current studies. Jacobs and Olson (2021) indicate that teacher shortages are prevalent across the teaching profession and suggest that deficiencies within the profession vary drastically for each state. They advocate a need for states to take action to identify areas of shortages specific to their educational system needs, dually noting that recognizing the diversity of needs within each state is one of the driving forces behind teacher attrition.

Research indicates that common factors are prevalent in relation to teacher retention, identifying autonomy, job satisfaction, flexibility, shared decision-making, choice in instructional methods, supportive environment, motivation, compensation, beginning teacher advocacy, carefully selected mentors, and teacher preparation as key factors related to teacher retention (Deci, 2009; Fradkin-Hayslip, 2021; Moir, 2009). Looking through the lens of teacher performance as it relates to teacher retention, research supports the alignment with the self-determination theoretical framework and indicates an emphasis on autonomy, competence, and relatedness. Research suggests these should be key factors within the evaluation process to enhance teacher performance and, in turn, increase teacher retention (Fradkin-Hayslip, 2021).

The current teacher evaluation system, T-TESS, attempts to align these factors to the evaluation process. Having a student and teacher-centered approach to the assessment components, supporting autonomy, relatedness, and competence (TEA, 2022c). Supporting research suggests that teacher quality has a direct impact on student learning. In fact, Wiliam (2016) reports that effective teachers have a 50% increase in student

learning over average teachers and a 100% increase in learning over poor teachers, indicating that students in an average teacher's class will take one year to learn what students in an effective teacher's class will learn in a six-month timeframe. This research supports the competence aspect, driving home the importance of a growth mindset and student-centered approach. As Wiliam (2016) points out, the qualities between effective and ineffective teachers are complex, not clearly defined, and vary tremendously. It is these variations and complexity in teaching that shift the focus of improvement to an improvement framework stance as opposed to an evaluation improvement stance. A teacher's performance, when deemed highly effective, also elicits high job satisfaction, dedication to the profession, and value for continuous growth (Ryan & Deci, 2017; Fradkin-Hayslip, 2021; Wiliam, 2016).

Teacher Mentoring

History of Mentoring

Pitton (2006) defines mentoring as "the intentional pairing of an inexperienced person with an experienced partner to guide and nurture their development" (p. 1). The teaching profession is a fast-paced, highly demanding profession. Mentoring provides support for emotional needs, pedagogical practices, and the evaluation process. Teacher effectiveness plays a role in student learning and can be significantly effective or ineffective (Dag & Sari, 2017; Ewing, 2021; Iancu-Haddad & Oplatka, 2009; Pitton, 2006). The purpose of mentoring novice teachers is to provide a support system that nurtures the growth of inexperienced teachers in an effort to foster high levels of teacher effectiveness. The process by which novice teachers receive support can fluctuate between states, districts, and campuses. As the process of mentoring has evolved, several

key factors have emerged. These factors include providing support that encompasses the social, psychological, and professional needs of the novice teacher (Dag & Sari, 2017; Ewing, 2021; Iancu-Haddad & Oplatka, 2009; Pitton, 2006).

A conglomerate of mentoring models exists to support the process of improving teacher performance, including the Competence-Supportive Coaching Model, Inquiry-Based & Cognitive Coaching, Student-Centered Coaching, Kansas Coaching Project Instructional Coaching Model, and New Teacher Center Model. Similarities among models indicate a common core of elements that are indicative of a holistic model to provide the most effective mentor/mentee experience. These common core elements include:

- a continuous mentoring cycle that includes reflection, goal setting, observation, data collection, learning, and modeling of practice
- authentic, continuous feedback from mentor/coach
- self-reflection
- co-analysis, modeling, and direct practice
- evaluation of student success/engagement
- identifying strengths and areas for necessary growth
- ideally, the mentor/coach is an expert in the field of teaching, with extensive experience teaching the age group of learners assigned to the novice teacher
- building trust and open communication
- frequent collaboration with mentor/coach and novice teacher
- establishing a safe and confidential professional relationship

- continued professional development for both the mentor/coach and novice teacher (Dag & Sari, 2017; Ewing, 2021 Iancu-Haddad & Oplatka, 2009; Lein, 2022; Pitton, 2006)

While these effective elements serve as a basis for mentors to follow, there are ineffective elements that need to be avoided. A novice teacher should not be placed with a mentor who does not have at least five years of teaching experience, or who struggles to successfully navigate the teaching profession, lacks the desire to be a mentor/coach, is stagnant in their professional growth, or lacks the time needed to devote to the novice teacher (Dag & Sari, 2017; Ewing, 2021 Iancu-Haddad & Oplatka, 2009; Lein, 2022; Pitton, 2006).

Mentoring Novice Teachers through the Evaluation Process

The National Education Association (NEA, 2019) reports that during the first five years of teaching, more than 40% of teachers leave the field of education. The NEA suggests that more than 68% of those teachers who leave the profession contribute their resignation due to a lack of autonomy, lack of support, lack of respect, and lack of compensation. Mentoring is an avenue educational entities are embracing in an effort to decrease teacher retention and increase teacher effectiveness. Pairing novice teachers with experienced, highly qualified mentors who are familiar with the evaluation process can provide the much-needed support novice teachers require. Focusing on the T-TESS evaluation system, mentors can use the domains, dimensions, and evaluation rubrics to identify a common language, set learning/teaching goals, align professional development plans to be specific to the novice teacher's needs, model and expose the novice teacher through the evaluation cycle (pre-conference, observation, post-conference), and examine

student growth measures (Dag & Sari, 2017; Ewing, 2021 Iancu-Haddad & Oplatka, 2009; Lein, 2022; NEA, 2019; TEA, 2022c; Pitton, 2006; Vandermolen & Meyer-Looze, 2021).

In a study by Kane et al. (2020), researchers collected and analyzed data on the effects of a technology tool to improve teacher evaluations. The evidence gathered showed a positive impact on several aspects of the evaluation process. Impacts for teachers included self-reflections that were more critical and offered more opportunities to be specific and question ways to improve, an increased likeliness for teachers to identify areas of improvement based on observation and feedback, and increased teacher retention. For administrators, the opportunity to reallocate time within the workday was a benefit, but some administrators noted a disconnect with only having a virtual observation. Administrators recommended that least one in-person observation should be considered (Kane et al., 2020).

The variations in mentoring and feedback indicate that the accuracy of feedback, the evaluator's credibility, the usefulness of the feedback, and the resources teachers have access to are characteristics that influence teacher effectiveness (Dag & Sari, 2017; Ewing, 2021; Iancu-Haddad & Oplatka, 2009; Lein, 2022; NEA, 2019; TEA, 2022c; Pitton, 2006; Vandermolen & Meyer-Looze, 2021). In addition, the purposeful selection of mentor assignments and enhanced continuous feedback directly connect to teacher performance (Moir, 2009). Holland (2014) and Wiggins (2012) both indicate feedback has a direct impact on teacher performance and can produce positive results. Dominguez (2017) identifies a common agreement among mentors and mentees, in that "the need for both mentor and mentees to be able to offer and receive feedback, along with listening

and communication skills" (p. 77) is an essential component for professional growth. Feedback should align with teaching goals, and it should be ongoing, tangible, transparent, actionable, personalized, consistent, and include information from previous behaviors that correlate to the present circumstance and relate to future influencers (Holland, 2014; Vandermolen & Meyer-Looze, 2021; Wiggins, 2012). Utilizing a video recording device will allow mentors and mentees an opportunity to return to a teaching situation to review and reflect on the pedagogy of the lesson, with opportunities to leave immediate, authentic, and specific feedback that can be related back to learning goals established between the mentor and mentee (Holland, 2014; Vandermolen & Meyer-Looze, 2021; Wiggins, 2012).

Mentoring with a Video Recording Device

Over the past few years, there has been an increased interest in mentoring and supporting teachers through the use a video recording device (Wass & Rogers, 2021). Easy access to mobile recording devices, combined with options to review, share, and collaborate on the recordings with peers, has been a compelling option for educators (Tripp & Rich, 2012; Wass & Rogers, 2021). Tripp & Rich (2012) indicate that teachers prefer when video observations are combined with mentorship. Their research specifies that when recorded observations are revisited with colleagues and a collaborative conversation between professionals occurs, the opportunity for authentic feedback and areas of growth can be individualized (Tripp & Rich, 2012).

Research on the use of a video recording device to assist in the mentorship process spans across the field of education. In a study conducted by Wass and Rogers (2021), a video recording device was used in the professional development of tutors. This

device was used in conjunction with self-reflection, peer mentoring, video-recorded observations, and informal student feedback. Research from this study revealed the use of a video recording device allowed tutors to revisit teaching moments from the perspective of their students and allowed for opportunities to reflect on specific teaching instances that may not be available without the recording. Researchers identified four key benefits associated with the use of the video recording device: increased confidence in their teaching ability, positive outcomes with student learning, collegiality, and self-reflection. The study found that when annotated video observations were combined with mentoring and student feedback, personalized academic development of tutors was strengthened (Wass & Rogers, 2019).

Steiner et al. (2022) used a video recording device to enhance the mentoring experience of novice teachers, as well as to develop the mentoring skills for the current mentors. A multiple-step process was reported that included data collection of student learning, video recordings of novice teacher instruction time, and recordings of the conversations between the mentor and novice teacher. Initially, the mentor uses student data, collected from the novice teacher's classroom, to identify an area of growth. Then, the mentor uses a video recording device to record classroom instances of the novice teacher in action. The novice teacher reviews the video recording and self-reflects on what she observes, identifying potential strengths and weaknesses related to the area of growth she is working on with her mentor. After the self-reflection is complete, the mentor and novice teacher review the instructional recording together to identify specific instances and discuss strategies for improvement. The collaboration between the mentor and novice teacher is recorded. The collaboration recordings are then used with the

mentor and a team of learning coaches to help refine the mentoring. Their research suggests that incorporating foundational mentoring strategies that begin with developing partnerships with teachers, fostering professional growth through real-world application of pedagogical practices, invoking collaboration that is student-centered and data-driven, and co-constructing instructional strategies to improve student success can be enhanced with the use a recording device (Steiner et al., 2022).

Mentoring with a video recording device also occurs outside the K-12 environment, for example, in medical field classrooms. Research studies have reported the use of a video recording device to provide mentorship and professional development to medical students (Donovan et al., 2020; Hu, 2017; Simok et al., 2021). Although not in the K-12 environment, similarities in the use of a video recording device are evident between disciplines. These include self-reflection, co-collaborations between mentors and mentees, authentic feedback specific to mentee needs, data driven recommendations for professional growth, and opportunities to revisit recordings for mentor and mentee frame of reference (Donovan et al., 2020; Hu, 2017; Simok et al., 2021).

Focusing on the use of video recording devices in the mentoring process and the inclusion of feedback, research indicates that the accuracy of feedback, the evaluator's credibility, the usefulness of the feedback, and the resources teachers have access to are characteristics that influence teacher effectiveness (Dag & Sari, 2017; Ewing, 2021; Iancu-Haddad & Oplatka, 2009; Lein, 2022; NEA, 2019; TEA, 2022c; Pitton, 2006; Vandermolen & Meyer-Looze, 2021). In addition, the purposeful selection of mentor assignments and enhanced continuous feedback directly connect to teacher performance (Moir, 2009). Holland (2014) and Wiggins (2012) both indicate feedback has a direct

impact on teacher performance and can produce positive results. Dominguez (2017) identifies a common agreement among mentors and mentees, in that "the need for both mentor and mentees to be able to offer and receive feedback, along with listening and communication skills," (p. 77) is an essential component for professional growth. Feedback should align with teaching goals, and it should be ongoing, tangible, transparent, actionable, personalized, consistent, and include information from previous behaviors that correlate to the present circumstance and relate to future influencers (Holland, 2014; Vandermolen & Meyer-Looze, 2021; Wiggins, 2012). Utilizing a video recording device will allow mentors and mentees an opportunity to return to a teaching situation to review and reflect on the pedagogy of the lesson, with opportunities to leave immediate, authentic, and specific feedback that can be related back to learning goals established between the mentor and mentee (Holland, 2014; Vandermolen & Meyer-Looze, 2021; Wiggins, 2012).

As seen in the literature, a video recording device has been used during the mentorship process in multiple environments. The differences in uses exist, but the similarities are undeniable. Each reported instance of use has a direct connection to improvement of an evaluated task. The improvement process includes a video recording, a mentor, a mentee, authentic feedback, data to support instruction, and self-reflection (Steiner et al., 2022; Tripp & Rich, 2012; Wass & Rogers, 2019). Existing research supports the idea that the inclusion of a video recording device to improve the teacher appraisal process may be a necessary addition.

Various Video Recording Devices Used to Support Novice Teachers

In a technology-driven society, a video recording device can be easily accessed. For the purpose of this study, I categorized the devices into two subcategories, stationary/static devices and motion-tracking devices (Pappas, 2013; Winstead, 2022). Stationary/static devices might include phones, tablets, web cameras, and camcorders. Motion-tracking devices might include the Swivl™ robot, VDO 360, Panopto, or Auto-tracking PTZ camera (Berry, 2021; Pappas, 2013; Winstead, 2022).

Stationary/static devices, such as phones or tablets, are readily available in most classrooms. They offer an inexpensive way to capture an entire lesson or teaching instance (Berry, 2021). The recording can easily be shared with others to gain feedback about the lesson (Berry, 2021; Pappas, 2013). Hager (2018) recommends using a stationary recording device for self-monitoring. Hager (2012) states that "student teachers who implemented self-monitoring interventions as a required component of their field placement reported that it was easy to implement, helped them improve their teaching, and was worth the time it took to implement" (p. 284). These static video recording devices can allow mentors to gain access to classroom experiences without having to be present. However, potential restraints are evident when using a stationary device, for example, the teacher may go in and out of the screen, causing the entire lesson to not be captured within the recording. Further, audio concerns may be present (Winstead, 2022). The static recording does not offer features to provide feedback within the recording, requiring the mentor to notate timeframes for the mentee to review. Also, if the video recording is too large, it may not be able to be shared between devices, or it may cause storage restrictions on the device (Berry, 2021; Pappas, 2013; Winstead, 2022).

Motion tracking devices, like the Swivl™ robot or VDO 360, offer the same ability to record specific lessons or instances and to share with mentors but remove the stationary barrier (Berry, 2021; Hager, 2018; Pappas, 2013; Swivl, 2022; Winstead, 2022). The Swivl™ robot provides a platform for teachers to upload videos, eliminating the concern for storage or file size restrictions. In addition, the platform enables mentors to isolate specific instances within the lesson to give immediate feedback to teachers. However, costs associated with motion-tracking devices can be extensive and funds are often not readily available to teachers. A learning curve with the software and platform use may also pose a potential concern for users (Berry, 2021; Pappas, 2013; Swivl, 2022; Swivl, n.d.; Winstead, 2022). The Immersive Teacher Preparation program at Louisiana Tech University's Clinical Residency and Recruitment Center (LTU) used the Swivl™ robot as their observation and feedback tool. With a focus on Danielson's Framework for Teaching, the addition of the Swivl™ robot supported LTU's co-teaching, co-planning, and co-reflection expectations daily (Swivl, 2022). Due to the equitable use of the Swivl™ robot, the LTU program has expanded to allow teacher candidates to have teaching experiences in schools within a 75-mile radius (Swivl, 2022). The impact on learners was also revealed by Sarah Cowell, an LTU teacher candidate, stating that "the Robot also helps because even though there are two of us in the room, we can't always see and hear everything – it lets me hear what students are saying so I can get a better sense of which students are getting distracted" (Swivl, 2022, p. 3). The ability to capture audio that would evidently go undetected without the device provides incredible insight for novice teachers. Many times, novice teachers lack the ability to read the room or capture the feel of students, but the option to review lessons taught and develop these

skills is available through the use of this device (Hager, 2018; Holland, 2014; Steiner et al., 2022; Tripp & Rich, 2012; Vandermolen & Meyer-Looze, 2021; Wass & Rogers, 2019; Wiggins, 2012).

Summary

The purpose of this chapter was to provide an overview of the literature on teacher effectiveness, measures of teacher effectiveness, the teacher performance evaluation process, the history and trends of teacher performance evaluations, mentoring for novice teachers, mentoring with a video recording device, and various video recording devices used with novice teachers. Teacher effectiveness, including importance and teacher qualities, was discussed. It was noted that teacher effectiveness has a direct impact on student learning. Findings in the literature identify qualities effective teachers exhibit and explain how to foster the identified qualities (Hepsibha & Catherine, 2022; Killion & Hirsh, 2011; Stronge et al., 2011; Wiliam, 2016). The literature surrounding the measurement of teacher effectiveness indicates an ambiguous conglomeration of various techniques. The literature reveals attributes and evaluation tools used across the teaching profession (Danielson, 2011; Goe et al., 2008; Hepsibha & Catherine, 2022; Killion & Hirsh, 2011; Little et al., 2009; Stronge et al., 2011). The historical factors and trends of measuring teacher performance, performance evaluation systems, and T-TESS evaluations were discussed, with commonalities and differences within tools addressed (Goe et al., 2008; Hepsibha & Catherine, 2022; Killion & Hirsh, 2011; Little et al., 2009; TEA, 2022a; TEA, 2022c). The literature reviewed for teacher evaluations and teacher retention showed an increase in attrition rates, aligning common factors associated to the retention of effective teachers and self-determination theory (Deci, 2009; Fradkin-

Hayslip, 2021; Moir, 2009). Literature related to the history of mentoring novice teachers addresses the support system required to ensure strong pedagogical practices are established (Dag & Sari, 2017; Ewing, 2021; Iancu-Haddad & Oplatka, 2009; Pitton, 2006). Mentoring with a video recording device was reviewed in the context of how it can be used to support novice teacher performance and mentor/mentee relationship (Dag & Sari, 2017; Ewing, 2021; Hager, 2012; Hager, 2018; Iancu-Haddad & Oplatka, 2009; Lein, 2022; NEA, 2019; TEA, 2022c; Pitton, 2006; Vandermolen & Meyer-Looze, 2021; Wass & Rogers, 2019; Wiggins, 2012; Winstead, 2022). To conclude, various video recording devices used to support novice teachers were discussed (Berry, 2021; Hager, 2012; Hager, 2018; Holland, 2014; Pappas, 2013; Steiner et al., 2022; Tripp & Rich, 2012; Vandermolen & Meyer-Looze, 2021; Wass & Rogers, 2019; Wiggins, 2012; Winstead, 2022).

In Chapter III, the descriptive quantitative correlational study is presented as the research methodology for this study. A discussion of the research methods, data collection process, and data analysis are provided.

CHAPTER III

Method

This study used a descriptive quantitative correlational research design. Researchers use quantitative methods that are objective to explore, collect, analyze, and determine possible relationships. Correlational research allows researchers to evaluate two variables to attempt to establish a statistically significant relationship, where a change in one variable corresponds, either positively or negatively, to a change in the other variable. Using statistical methods such as power analysis and descriptive bivariate correlational analysis, researchers can explore the relationships among data, making inferences about the type of correlational research the variables present (positive, negative, or no correlation). Correlational quantitative data can be gathered in various forms, such as observations, surveys, or archival research (Creswell & Creswell, 2018; Field, 2018). Therefore, a descriptive quantitative research design using a bivariate correlational analysis is an appropriate research design to determine the relationship that exists between the number of uses of a video recording device and teacher performance measured by the T-TESS for first-year teachers.

This chapter's purpose is to introduce the descriptive quantitative bivariate correlational analysis methodology. In this chapter, the research question, research hypotheses, research methods, data collection, and data analysis are explained.

Research Questions and Hypothesis

This descriptive quantitative bivariate correlational analysis aims to determine the relationship between the number of uses of a video recording device and teacher performance measured by T-TESS for first-year teachers.

For this study, archival data were retrieved from a target group of teacher residents (n = 170) who implemented a video-based recording device, a Swivl™ robot, to improve their pedagogical practices. The group of teachers who participated in the archival experimental research study were residents of the Sam Houston State University 4+1 TEACH program. They were afforded a video recording device, a Full Release Mentor (FRM), and a Site-Based Mentor (SBM).

The following research question and hypotheses extend the research on the relationship between the use of video recording device and first-year teacher performance. The research question and hypotheses addressed in this study are:

RQ1: Does a relationship exist between the number of uses of a video recording device and teacher performance measured by the Texas Teacher Evaluation and Support System (T-TESS) for first-year teachers?

$H1_A$: There is a statistically significant relationship between the number of uses of a video recording device and teacher performance measured by T-TESS for first-year teachers.

$H1_0$: There is not a statistically significant relationship between the number of uses of a video recording device and teacher performance measured by T-TESS for first-year teachers.

Determining the relationship that exists between the number of uses of a video recording device and first-year teacher performance may provide insight into additional measures for increasing pedagogical practices for first-year teachers (Beaird et al., 2017; Borich, 2000; Dominguez, 2017; Greenville City Schools, 2013).

Research Design

The intent of this research study was to determine the relationship that exists between the number of uses of a video recording device and first-year teacher performance in all four domains measured by T-TESS by evaluating a target group of first-year teachers. Using archival data, I examined the number of uses of a video recording device for each participant and the summative T-TESS evaluation scores from all four evaluation domains (Learning, Instruction, Learning Environment, and Professional Practices and Responsibilities), conducted by each participant's Full-Release Mentor (FRM). Utilizing G-Power 3.1.9.7 statistical software, the suggested sample size, based on a 95% confidence level, needed for this study was 138 teacher residents. Archival were collected for 170 total teacher residents, exceeding the required sample size.

Using a two-tailed bivariate correlational analysis, I examined the relationship between the number of uses of the recording device and the summative T-TESS scores by domain for 4+1 TEACH first-year teachers (Creswell & Creswell, 2018). I checked for assumptions related to a correlational analysis, ensuring both variables were using a continuous scale, that there were no extreme outliers, that there was a normal distribution between variables, and that linearity between variables existed. Scatterplots were used to present the correlations between variables (Creswell & Creswell, 2018; Field, 2018).

Study Population

The population of the archival sample were a part of the Sam Houston State University 4+1 TEACH program, cohorts 2-5. Students included in the study population applied to the program in the first semester of their senior year as an undergraduate. The

target group of teachers who applied to the program were seeking an alternative certification with an accelerated teaching placement as teacher of record and a master's degree to be completed within the first year of teaching. The Sam Houston State University 4+1 TEACH program only had the funding to accept up to 45 teacher residents per cohort, a total of 90 per academic year, who completed a rigorous three-round admission process. Once admitted, the target group of teacher residents were required to complete their last semester of course work, graduate with their undergraduate degree, and obtain employment in a Sam Houston State University 4+1 TEACH program partnering school district in their certification area. After employment was obtained, each resident was afforded a Full Release Mentor (FRM). The FRM was a mentor who was completely released from classroom teaching duties, had at least 10 years of creditable teaching experience in the grade level/subject of the resident, was a highly effective educator as evidenced by student learning, and was a T-TESS certified evaluator. The FRM was assigned no more than five first-year residents, and they were required to have weekly contact with those residents. The primary responsibility of the FRM was to support the first-year teachers in implementing effective classroom management procedures, establishing routines, and implementing evidence-based instructional practices (Edmondson et al., 2018).

Cohort Two was admitted to the program in January 2019 and consisted of 44 teacher residents. Certification areas and student counts included EC-6 Generalist (20), EC-6 Bilingual (2), EC-6 Special Education (5), 4-8 Math (5), 4-8 English Language Arts/Social Studies (4), 4-8 Math/Science (2), 7-12 History (2), 7-12 Theatre (2), 7-12 Social Studies (1), and 7-12 Biology (1).

Cohort Three was admitted to the program in August 2019 and consisted of 45 teacher residents. Certification areas included EC-6 Generalist (18), EC-6 Bilingual (9), EC-6 Special Education (4), 4-8 Math (5), 4-8 English Language Arts/Social Studies (4), 4-8 Math/Science (3), 7-12 History (1), and 7-12 Life Science (1).

Cohort Four was admitted to the program in January 2019 and consisted of 45 teacher residents. Certification areas included EC-6 Generalist (4), EC-6 Bilingual (4), EC-6 Special Education (13), 4-8 Math (7), 4-8 English Language Arts/Social Studies (3), 4-8 Math/Science (4), EC-12 Spanish (2), 6-12 Agriculture (3), 7-12 English Language Arts (2), 6-12 Family and Consumer Sciences (1), 7-12 History (1), and 7-12 Social Studies (1).

Cohort Five was admitted to the program in August 2019 and consisted of 36 teacher residents. Certification areas included EC-6 Generalist (9), EC-6 Bilingual (8), EC-12 Special Education (5), 4-8 Math (4), 7-12 Math (2), 4-8 English Language Arts/Social Studies (4), 4-8 Math/Science (2), 7-12 English Language Arts (1), and 7-12 Theatre (1).

Data Sources

For this study, two data sources were used to collect archival data. One data source was the T-TESS observation scores conducted by the FRMs for each participant, and the second data source was the Swivl™ robot recordings.

Texas-Teacher Evaluation and Support System (T-TESS) Observation Protocol

The T-TESS was designed to reveal the comprehensive nature of teaching. Through a multi-year pilot, the observation instrument has demonstrated internal consistency and the ability to differentiate teacher performance (Lazarev et al., 2017),

encapsulating the essence of continual, evidence-based feedback between students and teachers and gauging teacher effectiveness based on student response. With an overall focus of six broad performance standards, *Instructional Planning and Delivery, Knowledge of Students and Student Learning, Content Knowledge and Expertise, Learning Environment, Data-Driven Practice,* and *Professional Practices & Responsibility,* four domains were identified to be assessed during the evaluation process using a rubric system. The four domains, *Planning, Instruction, Learning Environment,* and *Professional Practices & Responsibilities,* focus on both teachers and students. Each domain has subcategories of assessment, identified as dimensions, as seen in Table A1. Five ratings, *Distinguished (5), Accomplished (4), Proficient (3), Developing (2),* and *Needs Improvement (1),* are assessed on the evaluation rubric for each dimension based on the level of student-centered actions versus teacher-centered actions. Higher levels of student-centered actions increase the performance rating. The performance ratings are then used by the evaluator as a common language to provide evidence-based feedback and develop a personalized professional development plan for the teacher. The intent of this process is to create a continuous growth mindset that establishes an evaluation system based on ongoing collaboration (Texas Education Agency, 2022c). According to a report published by Lazarev et al. for the US Department of Education (October 2017):

> the T-TESS rubric is internally consistent at both the domain and dimension levels. All correlations between domain ratings and all correlations between dimension ratings are positive, suggesting that none of the domains or dimensions stands out as unrelated or contradictory to the rest of the rubric. (p. 1)

The internal reliability and consistency of the T-TESS evaluation tool provides an efficient evaluation tool to measure teacher performance (Lazarev et al., 2017).

The T-TESS evaluation tool was used by the FRM to evaluate the teacher residents' teaching performance. Every FRM participated in a four-day T-TESS training to become certified as a T-TESS evaluator. A minimum of three T-TESS evaluations were conducted for each teacher resident in their first year of teaching. For this study, summative T-TESS evaluations for the target group of teacher residents were used to evaluate teacher performance and possible relationship to the different numbers of use of the Swivl™ robot.

Reliability analyses were conducted for the archival data to ensure internal consistency between domains and dimension levels. The results for the archival data indicated a highly reliable dataset. The T-TESS Planning domain consisted of four dimensions ($\alpha = .878$). The T-TESS Instruction domain consisted of five dimensions ($\alpha = .910$). The T-TESS Learning Environment domain consisted of two dimensions ($\alpha = .893$). The T-TESS Professional Responsibilities and Practices domain consisted of two dimensions ($\alpha = .878$).

Swivl™ Robot Recordings

The Swivl™ robot is a video recording device that provides a virtual opportunity for teachers to receive peer feedback and coaching, and it enables opportunities for self-reflection (Swivl, n.d.). It was the intent of this research study to examine the relationship between the number of uses of a video recording device and first-year teacher performance scores. All teacher residents received a Swivl™ robot and access to a Swivl™ Pro account for video storage and feedback. The Swivl™ Pro account permits

users to upload and share unlimited video recordings. Access to this account readies teachers to share the recordings with their mentors, providing an opportunity to personally review and mark specific time-stamp instances within the recording for clarification or feedback, known as video tagging (Swivl, n.d.). Both teachers and appraisers utilize the video tagging feature, leaving comments and ear-marking specific moments of the recording to leave authentic and specific feedback or ask target questions related to the specific instance (Swivl, n.d.). Another feature specific to the Swivl™ Pro account is the ability to customize a rubric. The option to customize the video tagging with the added feature of a rubric allows teachers and appraisers to incorporate teacher appraisal evaluation rubrics that are used in conjunction with the T-TESS appraisal system. Using the video recording device allows teachers the choice of when to record, the autonomy in which strategy to focus on, and the flexibility of frequency in use. The appraiser has the ability to view multiple recordings that occur at different times of the day and with the possibility of different groups of students, allowing for a more holistic view of the classroom, as opposed to the traditional 45-minute observation. Feedback and guidance can be centralized and specific, with the ability to provide the opportunity for comparisons over multiple recordings to identify mastered areas of growth and target potential areas of weakness. The ability to store recordings and return to them later also provides the teachers and appraisers with a library of pedagogical teaching moments for growth.

The research population was required to use the Swivl™ robot recordings in conjunction with FRM mentoring processes. The target group of teacher residents was

encouraged to use the recording device a minimum of six times during their first year of teaching.

Data Collection

IRB approval for the collection of the archival data occurred prior to this study but covers the research that was conducted in this study. Data relating to video recordings were retrieved through the teacher residents' Swivl™ Pro accounts. Data relating to summative T-TESS evaluation scores for each teacher resident were retrieved from Sam Houston State University's Tk20 platform. Once the quantitative data were retrieved from both platforms, the information was entered into IBM® Statistical Product and Service Solutions (SPSS), Version 26.0 for Windows software, and prepared for statistical analysis. The risk associated with this research was no more than would be encountered by educators in ordinary life.

The archival data were securely stored on the Sam Houston State University Tk20 platform and the Swivl™ Pro account platform. Both platforms require administrative access using secure accounts and passwords only issued to Sam Houston State University faculty. After the archival data were retrieved from the Sam Houston State University Tk20 platform and the Swivl™ Pro Account, they were stored in an encrypted file on my password protected computer. All archival data collected will be deleted two years after the retrieval date.

Using the data stored on the Swivl™ Pro Account, I tallied the number of video recording uses and recorded each instance in an Excel file. Data stored on the Sam Houston State University Tk20 platform was used to retrieve the summative T-TESS evaluation scores for the archival sample. The scores for each domain were converted

from the rating to a number representation. Scores for each of the four domains are represented on a 5-point scale, with 5 representing the *Distinguished* rating, 4 representing the *Accomplished* rating, 3 representing the *Proficient* rating, 2 representing the *Developing* rating, and 1 representing the *Needs Improvement* rating.

Data Analysis

IBM® SPSS was used to analyze archival quantitative data collected by the 4+1 TEACH team. A two-tailed bivariate correlational analysis was performed to examine the relationship between the number of uses of the recording device and the summative T-TESS scores by domain for 4+1 TEACH first-year teachers (Creswell & Creswell, 2018). As the researcher, I checked for assumptions related to a correlational analysis, ensuring both variables were using a continuous scale, that there were no extreme outliers, that there was a normal distribution between variables, and that linearity between variables existed (Creswell & Creswell, 2018; Field, 2018). Scatterplots were used to present the correlations between variables. Positive correlations will indicate higher scores on one variable and will be indicative of higher scores on the other variable; as the number of uses of the recording device increase, so do the scores for the teacher's evaluation. Negative correlations will indicate that while higher scores are represented by one variable, lower scores for the other variable are noted; as the number of uses of the recording device increase, the teacher evaluation scores decrease. To measure the strength of the relationship between the two variables, Pearson's Correlation Coefficient (Pearson's *r*) was used (Creswell & Creswell, 2018; Field, 2018). Pearson's *r* ranges from -1.00 to +1.00, with -1.00 representing the strongest possible negative relationship and +1.00 representing the strongest possible positive relationship. Pearson *r* correlation

coefficients near +-.10 are considered small in relationship strength, near +-.30 are considered medium in relationship strength, and near +-.50 are considered large in relationship strength (Creswell & Creswell, 2018; Field, 2018).

Summary

In Chapter III, the descriptive two-tailed bivariate correlational quantitative research design methodology was introduced. In this chapter, the research question, hypotheses, data sources, study population, data collection, data analysis, and other research elements were explained. A descriptive two-tailed bivariate correlational quantitative research methodology was determined to be most appropriate for exploring, collecting, and analyzing the archival data and determining whether there is a relationship between the number of uses of the recording device and the summative T-TESS scores by domain for 4+1 TEACH first-year teachers (Creswell & Creswell, 2018).

In Chapter IV, the results of this study are presented. The data analysis procedures that were used to conduct the study are reviewed. The descriptive and correlational analyses are explained. Data illustrations are provided to clearly illuminate results.

CHAPTER IV

Results

A descriptive quantitative correlational research design using a bivariate correlational analysis was applied to explore the relationship that exists between the number of uses of a video recording device and teacher performance measured by the Texas Teacher Evaluation and Support System (T-TESS) for first-year teachers. This study analyzed the summative T-TESS evaluations of first-year 4+1 TEACH residents and the number of times each teacher resident uploaded a video recording. Quantitative methods were used to provide an objective means that allowed me to explore, collect, analyze, and determine possible relationships. The correlational research methods allowed me to evaluate the two variables, the use of a video recording device and summative teacher performance evaluation scores for all four T-TESS domains, in an attempt to establish a statistically correlational relationship, where a change in one variable corresponds, either positively or negatively, to a change in the other variable. As the researcher I used statistical methods such as power analysis and descriptive bivariate correlational analysis, to explore the relationships among data, making inferences about the type of correlational research the variables present (positive, negative, or no correlation). Using archival research methods, the correlational quantitative data were gathered and analyzed to determine the statistical relationship among the data (Creswell & Creswell, 2018; Field, 2018). This chapter presents the data analysis procedures used and the results of the descriptive and correlational statistical analysis.

Data Analysis Procedures

IBM® SPSS was used to analyze archival quantitative data collected by the 4+1 TEACH team. The population of the archival sample in this study were a part of the Sam Houston State University 4+1 TEACH program, cohorts 2-5. Teacher resident applied to the program in the first semester of their senior year as an undergraduate. Teacher residents who applied to the program were seeking an alternative certification route with an accelerated teaching placement as teacher of record and a master's degree to be completed within the first year of teaching.

A two-tailed bivariate correlational analysis was performed to examine the relationship between the number of uses of the recording device and the summative T-TESS scores by domain for 4+1 TEACH first-year teachers (Creswell & Creswell, 2018). As the researcher, I checked for assumptions related to a correlational analysis, ensuring both variables used a continuous scale, that there were no extreme outliers, that there was a normal distribution between variables, and that linearity between variables existed (Creswell & Creswell, 2018; Field, 2018). Scatterplots were used to present the correlations between variables. To measure the strength of the relationship between the two variables, Pearson's Correlation Coefficient (Pearson's *r*) was used (Creswell & Creswell, 2018; Field, 2018).

The limitations that were considered for this study included a small sample size, recognition of the validity and reliability of T-TESS evaluators, and the school demographics where 4+1 TEACH residents were employed. The archival study sample included only residents of the 4+1 program, limiting the size of archival sample to be analyzed. The 4+1 TEACH program accepted no more than 45 residents per cohort

group, limiting the size of the archival study sample that could be included in the study. In addition, the schools the 4+1 TEACH residents were employed were limited to the partnering districts within the 4+1 TEACH program, limiting the diversity of demographic locations (rural, suburban, urban) of the schools.

The 4+1 TEACH program required a rigorous three-round admissions process and selected no more than 45 residents per cohort. As a result, this sample population may not be representative of the larger population of teachers using a video recording device. A larger population that includes first-year teachers using a video recording device may be considered for further perspective and information regarding the effects of the video recording device on teacher performance.

Two instruments were used to collect the data. One instrument was the summative T-TESS observation scores conducted by the FRMs for each teacher resident and the second instrument was the Swivl™ robot recordings. Data related to video recordings were collected through the Swivl™ Pro account of each member of the study population. After the data was collected for each number of video recording uses from the Swivl™ platform, the data was exported to an Excel file. Data related to each teacher resident's summative T-TESS evaluation score were collected from Sam Houston State University's Tk20 platform. Once the scores were retrieved for each domain, they were converted from the rating to a number representation. The scores for each of the four domains were represented on a 5-point scale, with 5 representing the *Distinguished* rating, 4 representing the *Accomplished* rating, 3 representing the *Proficient* rating, 2 representing the *Developing* rating, and 1 representing the *Needs Improvement* rating. Once the quantitative data were collected from both platforms, the information was entered into

Statistical Package for the Social Sciences (SPSS), Version 26.0 for Windows software, and prepared for statistical analysis. The risk associated with this research was no more than would be encountered by educators in ordinary life (Edmonson, 2018).

After the data was entered into the SPSS, Version 26.0 for Windows software, a correlational analysis was performed. Once analysis was complete, the output data was reviewed, by examining both the descriptive and correlational results.

Internal and External Validity

Internal validity refers to the degree of confidence that the causal relationship being tested is not influenced by other variables and that the relationship is trustworthy (Shadish et al., 2002; Shultz et al., 2005; Streefkerk, 2022). Research indicates that using archival data may strengthen the internal validity of the research being conducted, by eliminating researcher bias (Shultz et al., 2005). This research study was designed to use archival data that were collected using reliable instruments. The internal reliability and consistency of the T-TESS evaluation tool provides an efficient evaluation tool to measure teacher performance (Lazarev et al., 2017).

External validity refers to the extent that the results of the study can be generalized to other situations or groups (Shadish et al., 2002; Shultz et al., 2005; Streefkerk, 2022). External validity as it relates to the sample population is strong, but it is important to note that the limitations of the study population sample size may impact the external validity when applied to other contexts. Due to the rigorous admission requirements the target group of teacher residents had to meet to be accepted into the program, it was challenging to imply that the correlations between variables could be applied to other populations or contexts (Shadish et al., 2002; Shultz et al., 2005;

Streefkerk, 2022). Further research on a larger sample population of novice teachers that eliminates the admission requirements is recommended to ensure external validity can be established for other populations or contexts.

Descriptive Analysis

Utilizing G-Power 3.1.9.7 statistical software, the suggested sample size, based on a 95% confidence level, needed for this study was 138 teacher residents. The archival data collected provided data for 170 total teacher residents, exceeding the required sample size. The target group of teacher residents for this study were a part of the Sam Houston State University 4+1 TEACH program, cohorts 2-5, $n = 170$. Teacher residents applied in the first semester of their senior year as an undergraduate. Teacher residents who applied were seeking an alternative certification with an accelerated teaching placement as teacher of record and a master's degree to be completed within the first year of teaching. The study population consisted of 154 females and 16 males. Teacher residents sought certification in a variety of areas. Certification areas, along with counts of teacher residents, were as follows: EC-6 Generalist (51), EC-6 Bilingual (23), EC-12 Special Education (27), 4-8 Math (21), 4-8 English Language Arts/Social Studies (15), 4-8 Math/Science (11), 6-12 Family and Consumer Sciences (1), 7-12 English Language Arts (3), 7-12 History (4), 7-12 Math (2), 7-12 Theatre (3), 7-12 Social Studies (2), 7-12 Biology (1), 7-12 Life Science (1), EC-12 Spanish (2), and 6-12 Agriculture (3). The ethnic background of the target group of teacher residents included nine African American, two Asian, 39 Hispanic, three International, three Multiple Race, seven Unknown, and 107 White students.

The target group of teacher residents were first-year teacher candidates who bypassed the traditional student teaching semester, selecting an alternative certification route to accelerate their opportunity to become teacher of record. For this research, the focus was related to all four T-TESS domains: Planning, Instruction, Learning Environment, and Professional Practices and Responsibilities. The T-TESS evaluation rubric used a 5-point scale, which included ratings for *Distinguished (5), Accomplished (4), Proficient (3), Developing (2),* and *Needs Improvement (1)*. TEA identifies the target rating that teachers must achieve for each domain of the T-TESS evaluation is *(3) Proficient*. A rating of 3 or higher dictates that the teacher has met the performance expectation (Texas Education Agency, 2022c). As indicated by the data provided in Table 1, each domain had a mean score of 3 or higher; *Planning M* = 3.136, *SD = .495*, *Instruction M* = 3.082, SD = .556, *Learning Environment M* = 3.223, *SD* = .649, *Professional Practices and Responsibilities M* = 3.267, *SD* = .564. The 4+1 TEACH program expected teacher residents to use the Swivl™ video recording device a minimum of six times. The data provided in Figure 1 show that the program expectation was met with *M* = 8.35, *SD* = 4.89.

Table 1

Descriptive Statistics

Variable	*n*	*M*	*SD*
T-TESS Planning	170	3.136	.495
T-TESS Instruction	170	3.082	.556
T-TESS Learning Environment	170	3.223	.649
T-TESS Prof Practice & Responsibilities	170	3.267	.564
# of Swivl Video Uploads	170	8.35	4.89

Note. $n = 170$.

Correlational Analysis

Using IBM® SPSS, a two-tailed bivariate correlational analysis was performed to examine the relationship between the number of uses of the recording device and the summative T-TESS scores by domain for 4+1 TEACH first-year teachers (Creswell & Creswell, 2018). Pearson *r* correlation coefficients near +-.10 are considered small in relationship strength, near +-.30 are considered medium in relationship strength, and near +-.50 are considered large in relationship strength (Creswell & Creswell, 2018; Field, 2018).

Table 2 provides the correlational analysis for each of the four domains of the T-TESS and the use of the Swivl™ recording device. For the T-TESS Planning domain, there is an approaching moderate, positive correlation between the two variables, $r(170) = .243$, $p = .001$, $r^2 = 5.9\%$. T-TESS Instruction domain has a small, positive correlation between the two variables, $r(170) = .171$, $p = .025$, $r^2 = 2.9\%$. T-TESS Learning Environment domain has an approaching moderate, positive correlation between the two

variables, $r(170) = .268$, $p < .001$, $r^2 = 7.2\%$. T-TESS Professional Practices and Responsibilities has a small, positive correlation between the two variables, $r = .189$, $p = .014$, $r^2 = 3.5\%$.

Table 2

Correlational Analysis

	# of Swivl Video Uploads			
Variables	*n*	*r*	r^2	*p*
T-TESS Planning	170	.243**	.059	.001
T-TESS Instruction	170	.171*	.029	.025
T-TESS Learning Environment	170	.268**	.072	< .001
T-TESS Prof Practices and Responsibilities	170	.189*	.036	.014

Note. $n = 170$.
* Correlation is significant at the .05 level (2-tailed).
** Correlation is significant at the .01 level (2-tailed).

As the researcher, I checked for assumptions related to a correlational analysis, ensuring both variables used a continuous scale, that there were no extreme outliers, that there was a normal distribution between variables, and that linearity between variables existed (Creswell & Creswell, 2018; Field, 2018). Figure 1 through Figure 4 provide the scatterplots used to present the correlations between variables.

Figure 1

T-TESS - Planning Domain Scatterplot

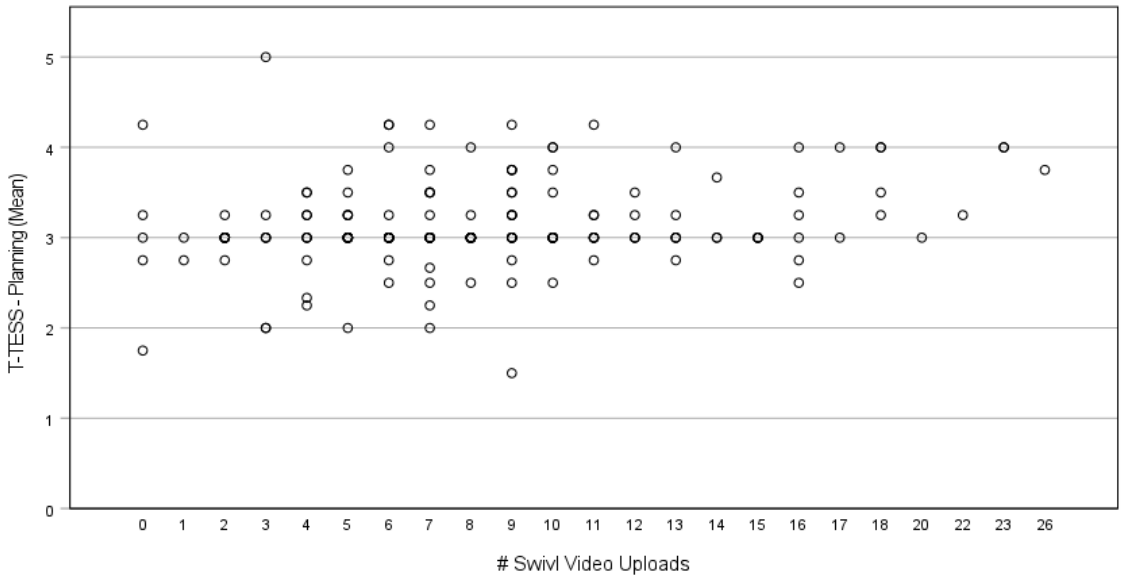

Figure 1 provides data for the T-TESS Planning domain. This scatterplot shows that teacher residents who uploaded six or more video recordings, more than not, received a score of 3 (Proficient) or higher for this domain. The correlational data for this domain showed an approaching moderate, positive correlation between the two variables, $r(170) = .243$, $p = .001$, $r^2 = 5.9\%$. As the researcher, I can conclude that 5.9% of the T-TESS Planning score can be attributed to the number of videos uploaded. Although there is an approaching moderate correlation, the results were lower than anticipated. It is reasonable to suggest that because of the rigorous qualifications required to be admitted into the 4+1 TEACH program, that program participants can be considered high achievers, possibly impacting the overall results. The categories within the T-TESS Planning domain include *Standards and Alignment, Data and Assessment, Knowledge of Students,* and *Activities*. Characteristics expected of program participants scoring a 3 (Proficient) or higher in this domain include that they should be proficient with the ability

to align lessons to state standards, create alignment between goals and objectives, implement technology integration, and use activities, assessments, and materials that incorporate diverse learner needs and that are relevant to all learners. Appropriate time management should also be evident. In addition, program participants should be able to assess student learning and use collected data to modify instruction to meet learner needs, including drawing on prior knowledge, addressing gaps in learning, providing clear instructions to ensure learners know expectations, creating instructional groups to meet learner needs, and challenging learners to think critically and apply knowledge (TEA, 2022c). Appendix A provides a comprehensive list of behaviors expected of program participants regarding the T-TESS Planning domain.

Figure 2

T-TESS - Instruction Domain Scatterplot

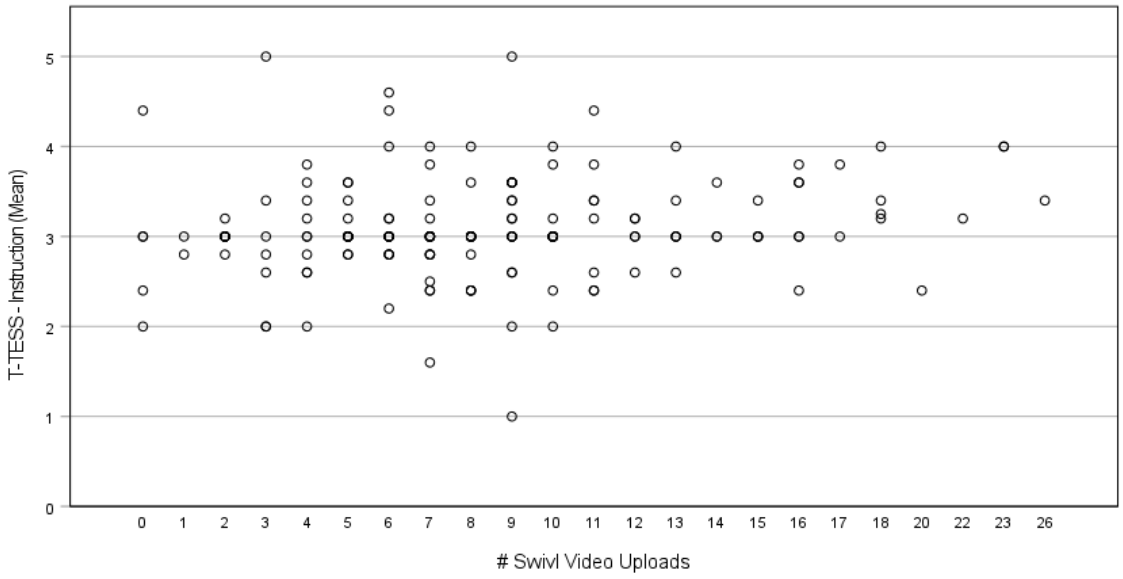

Figure 2 provides data for the T-TESS Instruction domain. This scatterplot shows that program participants who uploaded six or more video recordings, more than not, received a score of 3 (Proficient) or higher for this domain. The correlational data for this

domain showed a small, positive correlation between the two variables, $r(170) = .171$, $p = .025$, $r^2 = 2.9\%$. As the researcher, I can conclude that 2.9% of the T-TESS Instruction score can be attributed to the number of videos uploaded. The Instruction domain has the lowest attribution percentage. These results were much lower than anticipated. It is reasonable to suggest that because of the rigorous qualifications required to be accepted into the 4+1 TEACH program, that program participants can be considered high achievers, possibly impacting the overall results. The categories within the T-TESS Instruction domain include *Achieving Expectations, Content Knowledge and Expertise, Communication, Differentiation,* and *Monitor and Adjust*. Program participants scoring a 3 (Proficient) or higher in this domain should be proficient with the ability to achieve learner mastery on concepts, address learner misconceptions, and provide instruction in a manner that challenges learners. They should also have proficiency with the ability to integrate objectives across disciplines and plan instruction that encourages learners to use diverse types of thinking (research-based, creative, analytical, or practical). Communication between program participants and students should provide opportunities for both written and oral communication, clear communication should be evident, peer collaboration should be utilized, and probing questions should be used to elaborate and clarify learning. Differentiation is evident within instructional methods to ensure learner needs are addressed. Learners' social and emotional needs are addressed, learner confusion about content knowledge is corrected, and the quality of student participation and performance is regularly monitored. Student behavior, engagement, and understanding are actively monitored to ensure mastery is achieved (TEA, 2022c).

Appendix A provides a comprehensive list of behaviors expected of program participants regarding the T-TESS Instruction domain.

Figure 3

T-TESS - Learning Environment Domain Scatterplot

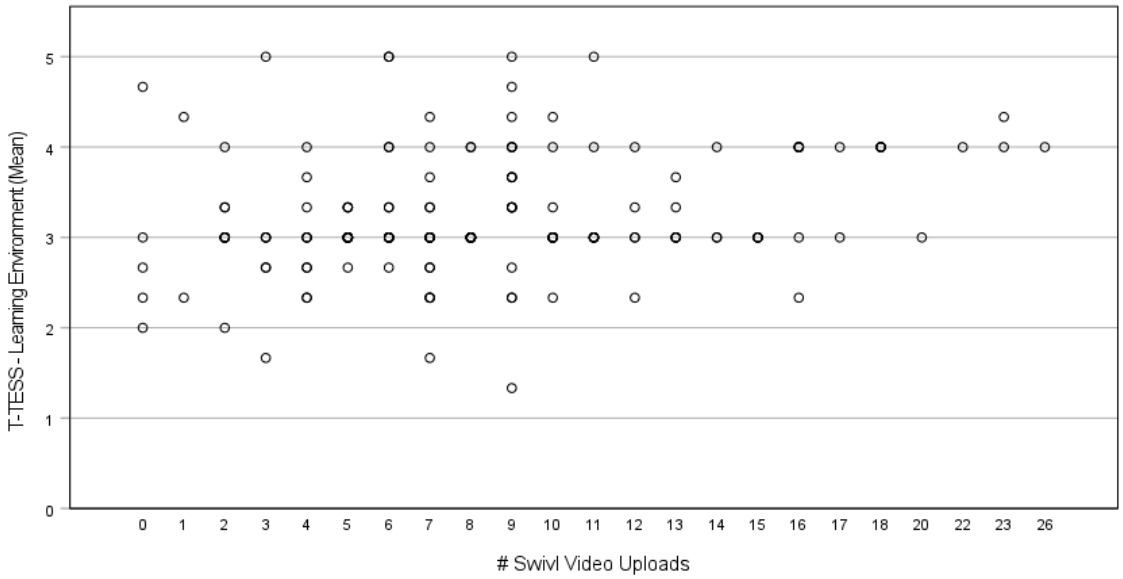

Figure 3 provides data for the T-TESS Learning Environment domain. This scatterplot shows that program participants who uploaded six or more video recordings, more than not, received a score of 3 (Proficient) or higher for this domain. The correlation data for this domain show an approaching moderate, positive correlation between the two variables, $r(170) = .268$, $p < .001$, $r^2 = 7.2\%$. As the researcher, I can conclude that 7.2% of the T-TESS Learning Environment score can be attributed to the number of videos uploaded. Although this domain has an approaching moderate correlation, the results were again lower than anticipated. It is reasonable to suggest that because of the rigorous qualifications required to be admitted into the 4+1 TEACH program, that program participants are considered high achievers, possibly impacting the overall results. The categories within the T-TESS Learning Environment domain include

Classroom Environment, Routines and Procedures, Managing Student Behavior, and *Classroom Culture*. Program participants scoring a 3 (Proficient) or higher in this domain should be proficient with implementation of routines, procedures, and transitions that are clear and efficient. Learners should be provided with the opportunity to manage materials and work both individually and with peers, requiring minimal teacher direction. The classroom should be safe, inviting, and organized, allowing learners an optimal learning environment to be engaged and active in the learning process (TEA, 2022c). Appendix A provides a comprehensive list of behaviors expected of program participants regarding the T-TESS Learning Environment domain.

Figure 4

T-TESS - Professional Practices and Responsibilities Domain Scatterplot

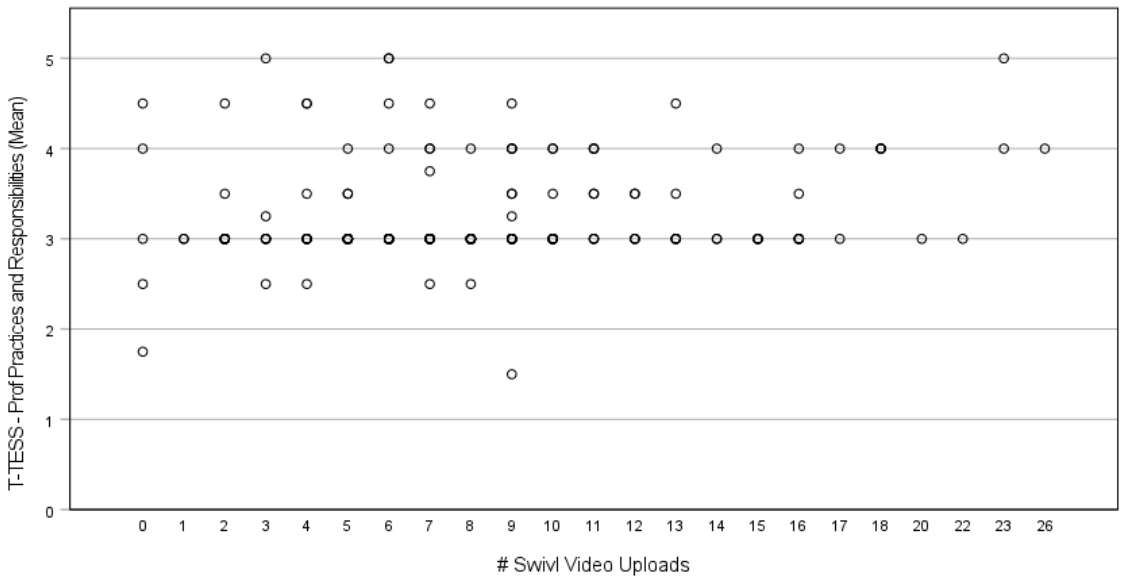

Figure 4 provides data for the T-TESS Professional Practices and Responsibilities domain. This scatterplot shows that program participants who uploaded six or more video recordings, more than not, received a score of 3 (Proficient) or higher for this domain. The data for this domain show a small, positive correlation between the two variables, r =

.189, $p = .014$, $r^2 = 3.5\%$. As the researcher, I can conclude that 3.5% of the T-TESS Professional Practices and Responsibilities score can be attributed to the number of videos uploaded. Like the other three domains, the results were lower than anticipated. Again, it is reasonable to suggest that because of the rigorous qualifications required to be admitted into the 4+1 TEACH program, that program participants can be considered high achievers, possibly impacting the overall results. The categories within the T-TESS Professional Practices and Responsibilities domain include *Professional Demeanor and Ethics, Goal Setting*, *Professional Development,* and *School Community Involvement*. Program participants scoring a 3 (Proficient) or higher in this domain should be proficient with professional conduct as it relates to the Code of Ethics and Standards for Texas teachers, set short and long-term professional goals, exhibit a growth mindset soliciting professional growth opportunities that align with professional goals, actively communicate with parents, and participate in outreach programs that foster the mission and goals of the district in which they teach (TEA, 2022c). Appendix A provides a comprehensive list of behaviors expected of program participants regarding the T-TESS Professional Practices and Responsibilities domain.

Summary

This chapter presented the results of the correlational data analysis for this study. Using a descriptive quantitative correlational research design, a bivariate correlational analysis was conducted to explore the relationship that existed between the number of uses of a video recording device and teacher performance measured by the T-TESS for first-year teachers. This study analyzed the summative T-TESS evaluations of first-year 4+1 TEACH residents and the number of times each participant uploaded a video

recording. As the researcher, I used statistical methods, such as power analysis and descriptive bivariate correlational analysis, to explore the relationships among data, making inferences about the type of correlational research the variables present (positive, negative, or no correlation). Results indicated that there was a small, positive correlation for both the T-TESS Instruction domain, $r(170) = .171$, $p = .025$, $r^2 = 2.9\%$ and T-TESS Professional Practices and Responsibilities domain, $r(170) = .189$, $p = .014$, $r^2 = 3.5\%$. There was an approaching moderate, positive correlation for both the T-TESS Planning domain, $r(170) = .243$, $p = .001$, $r^2 = 5.9\%$ and the T-TESS Learning Environment domain, $r = .268$, $p < .001$, $r^2 = 7.2\%$. The T-TESS Instruction domain was statistically significant related to the number of times each participant uploaded a video recording at $p = .025$. The T-TESS Professional Practices and Responsibilities domain was statistically significant related to the number of times each participant uploaded a video recording at $p = .014$. The T-TESS Planning domain was statistically significant related to the number of times each participant uploaded a video recording at $p = .001$. The T-TESS Learning Environment domain was statistically significant related to the number of times each participant uploaded a video recording at $p < .001$ (Creswell & Creswell, 2018; Field, 2018).

Chapter V presents key findings of the study. Contributions and connections to literature are discussed. The implications and recommendations for practice are reviewed. Limitations and recommendations for future research are also discussed.

CHAPTER V

Discussion

This descriptive quantitative correlational analysis explored the relationship between the use of a video recording device and summative Texas Teacher Evaluation and Support System (T-TESS) evaluation scores of 4+1 TEACH first-year teachers. This research closely aligned theory to practice while examining the relationship between variables. The study analyzed the summative T-TESS evaluations of first-year 4+1 TEACH residents and the number of times each resident uploaded a video recording. While conducting the research, I used a power analysis and descriptive bivariate correlational analysis to explore the relationships among data, making inferences about the type of correlational research each variable combination presented, positive, negative, or no correlation (Creswell & Creswell, 2018; Field, 2018).

In this chapter key findings from the correlational analysis are presented. Contributions of this research to the literature, implications on practice and future research are explored. In addition, limitations of the findings are also presented.

Key Findings

This study consisted of the following research question and hypotheses used to extend the research on supporting first-year teachers:

RQ1: Does a relationship exist between the number of uses of a video recording device and teacher performance measured by the Texas Teacher Evaluation and Support System (T-TESS) for first-year teachers?

$H1_A$: There is a statistically significant relationship between the number of uses of a video recording device and teacher performance measured by T-TESS for

first-year teachers.

$H1_0$: There is not a statistically significant relationship between the number of uses of a video recording device and teacher performance measured by T-TESS for first-year teachers.

After selecting a descriptive quantitative correlational research design, a bivariate correlational analysis was conducted to explore the relationship that existed between the number of uses of a video recording device and teacher performance measured by the T-TESS for first-year teachers. This study analyzed the summative T-TESS evaluations of first-year 4+1 TEACH residents and the number of times each resident uploaded a video recording. As the researcher, I used statistical methods, such as power analysis and descriptive bivariate correlational analysis, to explore the relationships among data, making inferences about the type of correlational research each variable presented, positive, negative, or no correlation.

Results indicated an approaching a moderate effect size, positive correlation between variables for the T-TESS Planning domain, $r(170) = .243$, $p = .001$, $r^2 = 5.9\%$, and for the T-TESS Learning Environment domains, $r(170) = .268$, $p < .001$, $r^2 = 7.2\%$. There was a small, positive correlation between variables for the T-TESS Instruction domain, $r(170) = .171$, $p = .025$, $r^2 = 2.9\%$, as well as for the T-TESS Professional Practices and Responsibilities, $r = .189$, $p = .014$, $r^2 = 3.5\%$. The results are statistically significant based on a .01 (two-tailed) *p* value for T-TESS Planning and T-TESS Learning Environment domains. The results are statistically significant based on a .05 (two-tailed) *p* value for T-TESS Instruction and T-TESS Professional Practices and Responsibilities domains (Creswell & Creswell, 2018; Field, 2018). It is also important to

note that 5.9% of the T-TESS Planning scores can be attributed to the number of video uploads. 7.2% of the T-TESS Learning Environment scores can be attributed to the number of video uploads. 2.9% of the T-TESS Instruction scores can be attributed to the number of video uploads. 3.5% of the T-TESS Professional Practices and Responsibilities can be attributed to the number of video uploads.

Evidence from the results of the correlational analysis allows us to reject the null hypothesis, proclaiming that there is positive correlational significance between the two variables. The statistically significant positive correlation between the uses of the video recording device and the summative T-TESS evaluation scores indicates that further research is necessary to determine if strengthening the variations in the use of the video recording device can increase the effect of the correlation between the two variables.

Contribution and Connection to the Literature

Extensive research exists on teacher effectiveness, ways to measure teacher effectiveness, teacher performance evaluation process, and teacher mentoring. In addition, research also exists related to the attributes of effective teaching, establishing a basis for which administrators make decisions about the knowledge and skillset pre-service teachers should possess, the recruitment of effective teachers, the development, design, and implementation of authentic and relevant professional development, the execution of reliable teacher evaluations, and the dismissal of ineffective educators (Hepsibha & Catherine, 2022; Stronge et al., 2011). Administrators recognize that teacher effectiveness has a direct impact on student achievement; therefore, a shift to emphasize the importance of the parallel between teacher effectiveness and various facets of teacher education is evident in the literature (Hepsibha & Catherine, 2022; Killion & Hirsh,

2011; Stronge et al., 2011; Wiliam, 2016). The findings of this study support this research (Danielson, 2011; Goe et al., 2008; Hepsibha & Catherine, 2022; Killion & Hirsh, 2011; Little et al., 2009; Stronge et al., 2011; Wiliam, 2016) and collectively show a positive trend in the efforts to foster increased teacher effectiveness through various avenues of continuous feedback, mentorships, and authentic performance evaluation tools. Results indicate a positive correlation between the use of the video recording device and teacher performance.

Research surrounding mentoring for first-year teachers suggests that fostering support for emotional needs, pedagogical practices, teacher effectiveness, and the evaluation process directly impact teacher effectiveness and student achievement (Dag & Sari, 2017; Pitton, 2006). Specifically, teacher effectiveness plays a role in student learning and can be significantly effective or ineffective (Dag & Sari, 2017; Ewing, 2021; Iancu-Haddad & Oplatka, 2009; Pitton, 2006). The purpose of mentoring novice teachers is to provide a support system that nurtures the growth of inexperienced teachers in an effort to foster high levels of teacher effectiveness. As the process of mentoring has evolved, several key factors have emerged. These factors include providing support that encompasses the social, psychological, and professional needs of the novice teacher (Dag & Sari, 2017; Ewing, 2021 Iancu-Haddad & Oplatka, 2009; Pitton, 2006). The findings of this study provide evidence in support of mentoring and identify potential areas for further research.

The results of this study support the literature surrounding teacher effectiveness and provide future avenues to explore that may strengthen the ways we meet novice teachers' needs in the future.

Implications and Recommendations for Practice

Implications and recommendations for future research were considered. The findings of this study indicate a statistically significant positive correlation between the number of uses of video recording and T-TESS evaluation scores. This evidence suggests that the frequency of use of video recording devices is positively correlated to novice teacher performance scores. While immature in its initial findings, further research is necessary to investigate possible ways a video recording device could be used to improve the mentoring process.

In addition, further research on authentic, continuous feedback should be explored in conjunction with the video recording device for first-year teachers. This research did not examine the data related to the specific feedback provided by mentors during the video recording process. However, data suggests that with the approaching moderate correlational relationship for T-TESS Planning and T-TESS Learning Environment domains, and a small correlational relationship for T-TESS Instruction and T-TESS Professional Practices and Responsibilities, if the qualitative data are reviewed, further evidence might be uncovered to strengthen the relationship between variables.

While the sample size, $n = 170$, of the study population exceeded the suggested sample size, $n = 138$, identified using the power analysis, G-Power 3.1.9.7 statistical software, recommendations to increase the number of the target group of teacher residents is advised. As discussed in the limitations section, the small sample size combined with the rigorous criteria 4+1 TEACH residents met prior to admission may have stifled the results. Conducting research that represents a larger novice teacher population might provide additional support of the correlation between the two variables.

In addition, expanding research to include first-year teachers that teach within more diverse school demographics might also be explored.

Limitations

Limitations considered for this study included a small sample size, recognition of the validity and reliability of T-TESS evaluators, and the school demographics where 4+1 TEACH residents were employed. The study population were all residents of the 4+1 TEACH program, limiting the number of teacher residents to be analyzed. In addition, the schools the 4+1 TEACH residents were employed were limited to the partnering districts within the 4+1 TEACH program, limiting the diversity of demographic locations (rural, suburban, urban) of the schools.

The 4+1 TEACH program required a rigorous three-round admissions process and selected no more than 45 residents per cohort. The sample population were required to have an undergraduate grade point average (GPA) of 3.25 or higher, three letters of reference, a writing sample, the completion of all Texas Examination of Education Standards (TExES), 120 completed semester hours, a group interview with program facilitators, and a 20-to-30-minute teaching video with proficient T-TESS scores. The admission process occurred twice a year, allowing no more than 90 possible teacher residents per academic year.

As a result, this sample population may not be representative of the larger population of novice teachers using a video recording device. A larger population that includes first-year teachers using a video recording device may be considered for further perspective and information regarding the effects of the video recording device on teacher performance.

Teacher performance is evaluated within every school district. The variations in appraisal components, tools, methods, and procedures pose challenges to the accessibility, flexibility, and authentic feedback necessary for teachers' professional growth (Deci, 2009; Fradkin-Hayslip,2021; Jiang & Luppescu, 2015; Wiliam, 2016). These challenges may be mitigated by implementing a video recording device in the evaluation process to foster a more cohesive teacher-evaluator interaction. Further research is recommended to evaluate the specific, authentic feedback process used in conjunction with the video recording device.

Recommendation for Future Research

Due to the small sample size and rigorous program requirements, a follow-up descriptive bivariate correlational study with a larger sample size encompassing a diverse group of teacher residents is recommended. Further research should also include a qualitative analysis of the feedback provided by evaluators to the teacher residents during the video recording/mentoring process. A deep dive into the relationship between the type of feedback, the amount of feedback, and the implementation of the feedback may also be considered. Furthermore, an analysis of the correlational relationship between T-TESS domains should also be explored.

Summary

Chapter V included key findings from the descriptive bivariate correlational analysis, along with the contributions of this research to the literature. The implications on practice and future research were explored, and the limitations of the findings were discussed.

Key findings were presented that supported evidence of the results of the correlational analysis that rejects the null hypothesis, proclaiming that there is positive correlational significance between the two variables. The statistically significant positive correlational relationship between the uses of the video recording device and the summative T-TESS evaluation scores indicates that further research is necessary to determine if strengthening the variations in the use of the video recording device can increase the correlational strength between the two variables.

Contributions of this research and its relationship between the findings and literature were discussed. Overall, the results of this study were consistent with current research on teacher effectiveness, ways to measure teacher effectiveness, teacher performance evaluation process, knowledge and skillset of pre-service teachers, development, design, and implementation of authentic professional development, teacher mentoring, and the execution of reliable teacher evaluations (Hepsibha & Catherine, 2022; Stronge et al., 2011). As a result, this study has provided research-based areas of focus for future research and practical application.

Implications and recommendations for future research were reviewed. Small and moderate correlational strengths were identified for the two variables. Initial results suggest that as the frequency of use of video recording devices increases, teacher performance scores also increase. Further research is necessary to investigate possible ways a video recording device could be used to improve the mentoring process. Authentic feedback data were not evaluated in this study; however, it is recommended that a qualitative analysis be performed to examine the data related to the specific feedback provided by mentors during the video recording process. If the qualitative data

are reviewed, further evidence might be uncovered to strengthen the relationship between variables.

The small sample size combined with the rigorous criteria 4+1 TEACH residents were required to meet prior to admission may subjugate the results. Conducting research that represents a larger novice teacher population might provide additional support for correlation between the two variables. Additional research that includes first-year teachers from more diverse school demographics might also be explored.

Finally, limitations related to the study were addressed. The primary limitations of this study were the small sample size and the limited school demographics where 4+1 TEACH residents were employed. The results of this study allow researchers to reject the null hypothesis and conclude that the positive correlational relationship between the two variables is statistically significant. Further research is necessary to possibly strengthen the relationship between variables.

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APPENDIX A

Table A1

T-TESS Dimensions and Standards

Domain	Dimension
1. Planning	*1.1 Standards and Alignment* The teacher designs clear, well-organized, sequential lessons that reflect best practice, align with standards and are appropriate for diverse learners. *1.2 Data and Assessment* The teacher uses formal and informal methods to measure student progress, then manages and analyzes student data to inform instruction. *1.3 Knowledge of Students* Through knowledge of students and proven practices, the teacher ensures high levels of learning, social-emotional development, and achievement for all students. *1.4 Activities* The teacher plans engaging, flexible lessons that encourage higher-order thinking, persistence, and achievement.
1. Instruction	*2.1 Achieving Expectations* The teacher supports all learners in their pursuit of high levels of academic and social-emotional success. *2.2 Content Knowledge and Expertise* The teacher uses content and pedagogical expertise to design and execute lessons aligned with state standards, related content, and student needs. *2.3 Communication* The teacher clearly and accurately communicates to support persistence, deeper learning, and effective effort *2.4 Differentiation* The teacher differentiates instruction, aligning methods and techniques to diverse student needs. *2.5 Monitor and Adjust* The teacher formally and informally collects, analyzes, and uses student progress data and makes needed lesson adjustments.
2. Learning Environments	*3.1 Classroom Environment, Routines and Procedures* The teacher organizes a safe, accessible, and efficient classroom. *3.2 Managing Student Behavior* The teacher establishes, communicates, and maintains clear expectations for student behavior.

	3.3 Classroom Culture The teacher leads a mutually respectful and collaborative class of actively engaged learners.
3. Professional Practices and Responsibilities	*4.1 Professional Demeanor and Ethics* The teacher meets district expectations for attendance, professional appearance, decorum, procedural, ethical, legal, and statutory responsibilities. *4.2 Goal Setting* The teacher reflects on their practice. *4.3 Professional Development* The teacher enhances the professional community. *4.4 School Community Involvement* The teacher demonstrates leadership with students, colleagues, and community members in the school, district and community through effective communication and outreach.

Note: Adapted from *T-TESS Rubric* by TEA, (2022b), (https://www.teachfortexas.org/Resource_Files/Guides/T-TESS_Rubric.pdf) Copyright 2020 by TEA.

APPENDIX B

Date: Aug 10, 2022 12:37:10 PM CDT

TO: Stacey Edmonson Christina Ellis FROM: SHSU IRB

PROJECT TITLE: 4+1 TEACH: An Extended Teacher Preparation Program

PROTOCOL#: IRB-2018-142 SUBMISSION TYPE: Renewal

ACTION: Approved

DECISION DATE: August 10, 2022

EXPIRATION DATE: August 10, 2023

EXPEDITED REVIEW CATEGORY: 8c. Continuing review of research previously approved by the convened IRB where the remaining research activities are limited to data analysis.

OPPORTUNITY TO PROVIDE FEEDBACK: To access the survey, click here. It only takes 10 minutes of your time and is voluntary. The results will be used internally to make improvements to the IRB application and/or process.

Your feedback will be most appreciated. Greetings,

The above-referenced submission has been reviewed by the IRB and it has been Approved. This decision expires on August 10, 2023. This approval is based on an appropriate risk/benefit ratio and a project design wherein the risks have been minimized. You may initiate your project. All research must be conducted in accordance with this approved submission.

Since Cayuse IRB does not possess the ability to provide a "stamp of approval" on any recruitment or consent documentation, it is the strong recommendation of this office to please include the following approval language in the footer of those recruitment and consent documents: IRB-2018-142/August 10, 2022/August 10, 2023.

Please remember that informed consent is a process beginning with a description of the project and insurance of participant understanding followed by a signed consent form. Informed consent must continue throughout the project via a dialogue between the researcher and research participant. Federal regulations require each participant receive a copy of the signed consent document.

Modifications: Please note that any revision to previously approved materials must be approved by this committee prior to initiation. Please submit a Modification Submission through Cayuse Human Ethics for this procedure.

Incidents: All UNANTICIPATED PROBLEMS involving risks to subjects or others and SERIOUS and UNEXPECTED adverse events must be reported promptly to this office. Please submit an Incident Submission through Cayuse Human Ethics for this procedure. All Department of Health and Human Services and sponsor reporting requirements should also be followed.

Renewals: Based on the risks, this project requires renewal reviews by this committee on an annual basis. Please submit a Renewal Submission through Cayuse Human Ethics for this procedure. Your documentation for renewal must be received with sufficient time for review and updated approval before the expiration date of August 10, 2023.

Closures: When you have completed the project, a Closure Submission must be submitted through Cayuse Human Ethics in order to close the project file.

Please note that all research records should be retained for a minimum of three years after the completion of the project.

If you have any questions, please contact the Sharla Miles at 936-294-4875 or irb@shsu.edu. Please include your protocol number in all correspondence with this committee.

Sincerely,

SHSU Institutional Review Board

VITA

JAMIE THOMPSON

EDUCATION

Sam Houston State University	Ed.D Doctorate of Instructional System Designs & Technology	2023
Sam Houston State University	M.E.D Master of Instructional System Designs & Technology	2009
Sam Houston State University	B.A. Interdisciplinary Studies Areas of Concentration: Early Childhood Education, ESL Minor: English Minor: Early Childhood Education Academic Achievements: President's List, Dean's List	2001

AWARDS

Conroe ISD	San Jacinto Elementary Teacher of the Year	2002-2003

TEACHING EXPERIENCE

Sam Houston State University	Undergraduate Courses Taught: School of Teaching and Learning CIEE 2333 Becoming a Teacher CIEE 3323 Curriculum for Intermediate CIEE 3336 Social Studies Instruction in Elem. CIEE 3374 Human Growth and Learning CIEE 3385 Content Methods Creating an Environment of Learning in Elem CIEE 3385 Field 1 – Creating an Environment of Learning in Elem. CIEE 4334 Math Instruction in Elem. CIEE 4335 Science Instruction in Elem. CIEE 4336 Social Studies Instruction in Elem CIEE 4384 Assessment of Student Learning CIEE 4385 Creating an Environment of Learning in Elem. CIME 3375 Middle-Level Child	2013-Present

Educational Consultant **2021-Present**
Consultant for Region Service Center Adult Education Programs

4+1 Fellow/Doctoral Student **2019-Present**
Research and Assist Program with all aspects regarding the 4+1 program/grant

Owner/Director of The Children's House **2005-2021**
Manage daily operations, hire and train staff, communicate with parents, comply with all state standards, create and implement curriculum for various age groups, instruct the Pre-Kindergarten class

Huntsville ISD - Sam Houston Elementary
Kindergarten Teacher **2004-2005**
Developed lesson plans, collaborated with teachers, communicated with parents. Served on Campus Advisory Committee, Enrichment Committee, Campus Language Committee, Campus Math Committee, After School Tutoring for 3rd grade, Yearbook Chairman

Conroe ISD – San Jacinto Elementary
Kindergarten Teacher **2001-2004**
Developed lesson plans, collaborated with teachers, communicated with parents. Served on Site Base committee , Social Club Committee Coordinator, After School Tutoring for 3rd & 4th grade, TxBess Mentor

RELATED EXPERIENCE

School Ready Certified
Texas State Center for Early Childhood Development **2008 – Present**

Huntsville ISD
District Advisory Committee **2006-Present**

Participate in decision-making process for Huntsville ISD

Huntsville ISD – Sam Houston Elementary
Campus Advisory Committee **2006-Present**

Participate in decision-making process for Sam Houston Elementary

PROFESSIONAL AFFAIRS

Awards

1. Honors and Awards Billy G. Dixon Distinguished Program Award, 2021 (4+1 TEACH team)
2. Christa McAuliffe Excellence in Teacher Education Award, 2021 (4+1 TEACH team)

Internal Grants

1. Research Contributor/Doctoral Fellow. 4+1 TEACH: An Extended Teacher Preparation Model to Meet the Needs of Houston Area Schools, SEED Grant, Department of Education, Washington, D.C. Total funding for project - $1,574,263. Awarded October 2021
2. Research Contributor/Doctoral Fellow. 4+1 TEACH: An Extended Teacher Preparation Model to Meet the Needs of Houston Area Schools, SEED Grant, Department of Education, Washington, D.C. Total funding for project - $3,688,675. Awarded October 2020.
3. Research Contributor/Doctoral Fellow. 4+1 TEACH: An Extended Teacher Preparation Model to Meet the Needs of Houston Area Schools, SEED Grant, Department of Education, Washington, D.C. Total funding for project - $4,579,311. Awarded October 2019.

Professional Organizations

1. Association of Teacher Educators (ATE)
2. Association for Educational Communications and Technology (AECT)
3. Society for Information Technology & Teacher Education (SITE)
4. Texas Computer Education Association (TCEA)

Peer-Reviewed Publications

1. Coyne, J., Thompson, J., & Hollas, T. (2022). Virtual STEM+C: Helping our residents navigate their first year of teaching. In Baumgartner, E., Kaplan-Rakowski, R., Ferdig, R.E., Hartshorne, R., & Mouza, C. (Ed.). A retrospective of teaching, technology, and teacher education during the covid-19 pandemic *Association for the Advancement of Computing in Education (AACE)* (pp. 115-121). Retrieved from http://www.learntechlib.org/primary/p/221522/\
2. Thompson, J., Collier, J., & LaPrairie, K. (2021). Designing for all: Preparing pre- service teachers for Universal Design for Learning, In E. Langran & L. Archambault Eds.), *Proceedings of Society for Information Technology and Teacher Education international conference* (pp. 1684-1688). Association for the Advancement of Computing in Education. https://www.learntechlib.org/primary/p/219334/
3. Collier, J., Thompson, J., & LaPrairie, K. (2020). Designing for all: Universal Design for Learning, In E. Langran (Ed.), *Proceedings of Society for Information Technology and Teacher Education interactive 2020 online conference* (pp. 686-688). Association for the Advancement of Computing in Education. https://www.learntechlib.org/primary/p/218223/

Peer-Reviewed Publications (Under Review)

1. Hollas, T., Coyne, J., Lane, M., & Thompson, J. (submitted January 2022). The culturally responsive teacher: Field experience diversity and its effect on teachers' instructional abilities. *Journal of Teacher Action Research.*
2. Hollas, T., & Thompson, J. (article accepted). Technology integration in the middle school classroom. *Journal of Teacher Action Research.*

Peer-Reviewed Presentations

1. LaPrairie,K.N, Mansfield, K., Thompson, J.L, & Collier, J.R. (2022, June 26-29) *Stand up to sit and get: Exercise innovative professional learning strategies* [Poster presentation] International Society for Technology in Education Annual Conference, Online & New Orleans, La, United States.
2. Thompson, J., Lane, M., Hollas, V., Coyne, J., (2022, February). Developing micro-credentials for the 4+1 teach program: Asynchronous and personalized professional development for novice teachers. Presented at the Association of Teacher Educators (ATE), Chicago, Illinois.
3. LaPrairie, K., Fennely-Atkinson, R., Mansfield, K., Ramirez, A., Thompson, J., Dyer, R., Collier, J., Rice, M., (2022, February). Stand up to sit-and-get professional learning: Exercise innovative strategies to motivate and engage, Texas Computer Education Assocation (TCEA), Dallas, Texas.
4. LaPrairie, K.N.,., Mansfield, K. Thompson, J.L., Collier, J.R., Fennely-Atkinson, R, Ramirez, A., Rice, M., (2021, November). *Not the same old sit and get: Innovative professional learning strategies that motivate & engage participants*. Presented at Association for Educational Communications & Technology (AECT), Chicago, Illinois.
5. Hebert, W., Zhang, H., Nguyen, P., Ugwu, L., Thompson, J., Gronseth, S., (2021, November). Teacher/students leading student/teachers'. Presented at Association for Educational Communications & Technology (AECT), Chicago, Illinois.
6. Collier, J., Thompson, J., & LaPrairie, K. (2021, September) Applying universal design for all for inclusive instructional design. Digital Education Summit (DES).
7. Thompson, J., Collier, J., & LaPrairie, K. (2021, March 30-April 2) Designing for all: Preparing pre-service teachers for universal design for learning. Presented virtually at Society forInformation Technology & Teacher Education (SITE).
8. Hollas, T., Thompson, J., Fisher, C., Ellis, C., Lane, M., & Coyne, J. (2021, February). A case study of novice teachers' abilities in their 1st year utilizing multipleassessments. Presented virtually at the Association of Teacher Educators (ATE), Anaheim,CA.
9. Coyne, J., Thompson, J., Ellis, C., Fisher, C., Hollas, T., & Lane, M. (2021, February). Using the teacher preparation effectiveness survey for first year teachers for principals to compare traditionally prepared first year teachers to 4+1 TEACH residents. Presented virtually at the Association of Teacher Educators (ATE), Anaheim, CA.
10. Thompson, J., Hollas, T., Lane, M., Coyne, J., & Ellis, C. (2020, November). SWIVL:A new approach to teacher induction and reflection utilizing a remote observation tool. Presented virtually at Association for Educational Communications & Technology (AECT), Columbus, OH.
11. Thompson, J., Lane, M., Hollas, T., Coyne, J., & Ellis, C. (2020, November). Microcredentials: A professional development platform for educators. Presented

virtually at Association for Educational Communications & Technology (AECT), Columbus,OH.

12. Lane, M., Ellis, C., Hollas, T., Coyne, J., & Thompson, J. (2020, March). First year teacher performance: A review of 4+1 TEACH cohort 1 residents. Presented virtually at the International Conference on Education, Training, and Informatics (ICETI), March 2020,Orlando, Florida.
13. Collier, J.,Thompson, J., & LaPrairie, K. (2020) Designing for all: Universal design forlearning. Presented virtually at Society for Information Technology & Teacher Education (SITE).
14. Hollas, T., Coyne, J., Lane, M., Ellis, C., & Thompson, J. (2020, February). Swivl: Anew approach to teacher induction and feedback. Presented at the Association of Teacher Educators (ATE), Atlantic City, New Jersey.
15. Lane, M., Coyne, J., Ellis, C., Hollas, T., Taylor, S., Thompson, J., & Powell, A. (2020, February). Microcredentials: A promising professional development model forteacher leaders. Presented at the Association of Teacher Educators, Atlantic City, New Jersey.

Professional Activities

1. Association of Teacher Educators (ATE) National Conference, Illinois, 2022.
2. Texas Computer Education Association, Texas, 2022
3. Association of Teacher Educators (ATE) National Conference, Virtual,2021.
4. Society for Information Technology & Teacher Education (SITE)., Virtual, 2021
5. Digital Education Summit (DES), Virtual, 2021.
6. Association for Educational Communications & Technology National Conference (AECT), Illinois, 2021
7. Association of Teacher Educators (ATE) National Conference, New Jersey,2020.
8. International Conference of Science, Infrastructure, and Technology (ICSIT) National Conference, Florida, 2020.
9. Digital Education Summit, Virtual, 2020.
10. Society for Information Technology & Teacher Education (SITE)., Virtual, 2020.
11. Association for Educational Communications & Technology National Conference (AECT), Florida, 2020.

Service

1. Grant work with Dr. Loft, 2022
2. Opportunity Fair, 2022
3. Council for the Accreditation Educator Preparation (CAEP) Standard 1 Committee, 2021
4. Ed-Aide T-TESS Field Supervisor, 2021
5. Region VI Service Center Adult Education Consulting, 2021
6. Opportunity Fair, 2021.
7. Project Learning Tree Facilitator Training, 2021
8. Journal for Teacher Action Research (JTAR) Reviewer, 2021
9. International Society for Technology in Education (ISTE) Reviewer, 2021
10. 5 & 10 Inclusive Dialogue, Jacob, M. Good talk. SHSU, 2021.
11. SHSU Honor Collaboration, Rooney, A., 2021.

12. Texas Association for Future Teachers (TAFE), Professional Development, 2021.
13. Opportunity Fair, 2020.
14. Association for Educational Communications and Technology (AECT) Reviewer, 2020.
15. SHSU Pinning Ceremony, 2020.
16. Texas Association for Future Teachers (TAFE), Professional Development, 2020.