

Teacher Educator Collaboration Using Portfolios:  
Using Peer and Student Feedback as a Process for Continuous Reflection and Learning

by

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## ABSTRACT

This action research study examined the influence of teacher educator collaboration using portfolios. The participants in this study were teacher educators in a university. The study was designed to combat the limited ways in which teacher educators receive feedback on their teaching. Teacher educator collaboration using portfolios enabled teacher educators to engage in professional learning around the teacher educator pedagogy of rehearsal, receive feedback in multiple ways over one semester, and utilize the feedback to make changes in their instruction. Because the process was cyclical, the measures enabled them to set goals, apply new learning, and engage in continual reflection and growth. A qualitative methods study was employed to investigate: (a) how teacher educators engaged in the collaborative portfolio process, (b) ways in which they found value in the process, and (c) ways in which they made changes to their teaching as a result of the feedback. Data were collected through pre-and post-intervention interviews, observations, and peer triad feedback forms. The study design aligned with two theoretical frameworks: situated learning theory and adult learning theory. Participants filmed themselves teaching twice, administered two teacher candidate feedback surveys, collaborated with their peers to examine their teaching together, and applied the feedback they received in order to strengthen their teaching. Throughout the study and at the conclusion, teacher educators used feedback from their students and peers to reflect on their own practices as teacher educators. The results of this study indicated that the participants found value in the pedagogy of rehearsal, watching their peers teach, and receiving feedback from both their peers and students. The data also showed that the teacher educators made changes to their instruction. Lastly, the participants valued the

time to collaborate with peers. Future research should include making modifications to the current collaborative portfolio process to involve evidence of teacher candidate learning, allowing teacher educators to investigate how their practices influence teacher candidate learning.

## DEDICATION

As someone who always struggled in school, I never dreamed that a doctoral degree was ever in my future. Throughout my childhood and into my college years, one thing always remained consistent... I was blessed with two parents who made a lot of sacrifices for me and believed in me. There are no words to express how grateful I am for them. Their unwavering support, encouragement, and willingness to push me, gave me the confidence and grit to persevere in everything I do. Mom and Dad...I pray that Cory and I give Max and Addie the same gift you gave me. You have always made me feel as if I could do anything, and you never let me give up. I can't think of a better gift to give a child.

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## DEFINITION OF TERMS

Several key terms are used consistently throughout this document. To provide clarity and a common understanding, the following definitions have been provided:

**Teacher educator.** A teacher educator instructs pre-service teachers in a teacher education program.

**Teacher candidate.** A student who is in the teacher preparation program.

**Collaboration.** Friend and Cook (1992) define collaboration as the interaction between professionals who are voluntarily engaged and moving toward a common goal through shared decision making and consultation.

**Reflection.** Reflection is the process of examining and thinking critically about one's teaching practice, using multiple evidence measures, with a willingness to adapt and change that practice.

## Chapter 1

### INTRODUCTION AND PURPOSE OF STUDY

Concerns about teacher preparation programs have received national attention. In the November 26, 2014 announcement released by the United States Department of Education, Secretary Arne Duncan warned, “we could do a far better job of preparing teachers for the classroom. It’s not just something that studies show – I hear it in my conversations with teachers, principals, and parents” (U.S. Department of Education, 2014). Throughout his tenure as U.S. Department of Education Secretary, Duncan has been a critic of teacher education programs. In an October 2009 speech at Teachers College, Columbia University, he acknowledged that positive changes were happening in colleges of education; however, many, he stated “are doing a mediocre job of preparing teachers for the realities of the 21st century classroom. America’s university-based teacher preparation programs need revolutionary change—not evolutionary tinkering” (Duncan, 2009). Former Secretary Duncan had been demanding that teacher education institutions examine how well their programs were producing classroom-ready teachers. He argued, “new teachers want to do a great job for their kids, but often, they struggle at the beginning of their careers and have to figure out too much for themselves” (U.S. Department of Education, 2014).

University-based teacher preparation programs had a virtual monopoly up until about forty years ago. For-profit alternative routes to teacher certification have gained wider acceptance as an additional pathway to teacher licensure. What began in the early 1980s as a way to proactively prevent shortages of teachers has rapidly evolved into an accepted model for recruiting, training, and certifying those who already have a

bachelor's degree and want to become teachers. These less traditional programs are growing exponentially in states across the country, causing debate about who should be preparing teachers.

In addition to this increased competition, university-based teacher preparation programs have identified a number of changes to the finances, governance, and faculty of higher education institutions. These changes are concurrent with the rise of neoliberal ideology, a dominant ideology in the United States and much of the world (Harvey, 2005). This ideology supports deregulation and greater market competition and has shaped the current U.S. teacher education policy. As a result, higher education institutions have an increased reliance on applied research and private sources of funding (Alexander, 2001; Clark, 1998; Giroux, 2005; Hill, 2003; Slaughter & Rhoades, 2004).

University-based teacher preparation programs are pressured to make teacher preparation a top priority. Research studies have shown the lack of impact of teacher education on teacher behavior and teacher learning (Cochran-Smith & Zeichner, 2005; Wideen, Mayer-Smith, & Moon, 1998). Studies conducted on teacher education graduates have revealed that graduates implement little of what they had learned in their teacher preparation programs. More than half of the newly prepared teachers report that their preparation program prioritized the teaching of theory in lieu of providing practice with addressing practical classroom challenges, like working with unmotivated students who lack a desire to learn (Public Agenda, 2000). An extensive meta-analysis by Wideen et al. (1998) led to the general conclusion that the impact of teacher education on practice tends to be minimal. The American Educational Research Association (AERA) Panel on Research and Teacher Education (Cochran-Smith & Zeichner, 2005) had similar findings.



In a review of North American research on teacher education, they came to the conclusion there is no convincing evidence that teacher education really makes a difference.

Teaching teachers is a complex job and it is unreasonable to expect that teachers will be experts in their first year of teaching. Nevertheless, it is unacceptable when new teachers remark that their first year of teaching was a train wreck. Other professions, such as being a pilot, engineer, or hair dresser, have clearly defined competencies that measure whether a person is “safe to practice.” It is critical that teacher preparation programs do the same and hold their students to standards of readiness (Abdul-Alim, 2014).

The concept of readiness undergirds the role of the Council for Accreditation of Educator Preparation (CAEP), the organization that provides accreditation for colleges of education. According to the CAEP standards, teacher preparation programs must ensure that “candidates develop a deep understanding of the critical concepts and principles of their discipline and, by completion, are able to use discipline-specific practices/competencies flexibly to advance the learning of all students toward attainment of college- and career-readiness standards” (CAEP, 2014). CAEP suggests that the role of colleges of education is to ensure teacher candidates can demonstrate these skills. One might conclude then, that it is important to ensure that teacher educators have the capacity to model these practices in their instruction, resulting in their candidates’ ability to enact these practices with their K-12 students.

Although there is a dearth of research regarding the influence of teacher educators’ teaching and its relation to teacher candidates’ ability to teach, it is not a responsibility that should be ignored. There is an abundance of data showing that the K-

12 classroom teacher is one of the most important factors in a student's success (Obama, 2009). The same could be said about the teacher educator and the students they prepare. In efforts to improve teacher preparation programs, very little emphasis has been placed on developing the teacher educator. Studies have shown that teacher education, based on specific teacher educator pedagogies, does have the potential to influence the practices of pre-service teachers (Brouwer & Korthagen, 2005; Day, 1999). More needs to be known, however, about the specific strategies that are used and ways to support and improve teacher educator effectiveness for this impact to be achieved among all teacher educators.

Former Secretary Duncan stated, "If we are going to improve teaching and learning in America, we have to improve the training and support that we give our teachers" (U.S. Department of Education, 2014). Duncan is pointing to the idea that teacher preparation programs need to rethink the traditional model of teacher education as it is proven to be ineffective at influencing the practices of the candidates.

Currently, the primary formal measures used by teacher educators to assess their effectiveness have been student course evaluations, which are typically administered at the end of each course (Arnold, 2009). These student ratings have become synonymous with faculty evaluation in the United States (Seldin, 1999). Despite recent literature on the need for comprehensive evaluation systems, student ratings of instructor and instruction are the only component that is regularly obtained and used (Aleamoni, 1999). According to Emery, Kramer, and Tian, (2003), student ratings are the most influential measure of performance used in promotion and tenure decisions at institutions that emphasize teaching effectiveness. A survey of 40,000 department chairs (U.S.

Department of Education, 1991) indicated that 97% used student evaluations to assess teaching performance.

Other research results have shown many potential biases to adversely influence the validity of these student evaluation scores, including the race and gender of the teacher, the grade students received in the course, and timing of evaluation (e.g. students score teachers lower if they just failed a test). Based on questionnaire data they collected from 691 students enrolled in 38 undergraduate classes, Gigliotti and Buchtel (1990) found when low grades were attributed to the instructor, they received lower evaluations.

Results of a survey of faculty members by Simpson and Siguaw (2000) showed most respondents perceived student evaluation surveys as problematic measurement instruments which encouraged professors to decrease standards. They asked faculty members to list how they responded to these student feedback measures. Many comments (23.6%) concerned activities that decreased grading or coursework standards. These results were consistent with earlier findings by Tabachnick, Keith-Spiegel, and Pope (1991), whose survey revealed that 22% of the instructors admitted to “giving easy courses or tests to ensure popularity with students” (p. 216). Even research over 40 years ago echoed these findings and concluded that feedback from students’ ratings alone was ineffective in affecting instructional practices (Centra, 1972). Centra noted, “This type of evaluation is not satisfying considering students’ and teachers’ needs, nor does it contribute to the improvement of teaching” (p. 143). Thus, it is clear that teacher educator evaluation in its current form generally contributes little to teacher educator growth and learning.

## University Context

With a greater focus on reforming colleges of education, recent research has suggested a variety of models for teacher education, although areas of consensus have emerged:

- a collaborative or collegial K-12 school-university setting;
- methods of providing and modeling authentic assessment;
- earlier and an increased number of field experiences for pre-service teachers;
- revised and coherent college curricula;
- the opportunity to participate in a socialization process to enhance the culture of learning. (Connor & Killmer, 2001)

When I first became an instructor for fourth year pre-service teachers, I realized quickly that although many changes were made to the teacher preparation program, there was no system in place for developing skilled teacher educator practices. I was challenged with the little amount of feedback I received about my teaching effectiveness. Furthermore, even though I took my student evaluations seriously, the feedback from students was minimal, and I did not know how to use them for improvement purposes.

I vividly remember being handed a syllabus and a teaching schedule. Teaching adults and preparing new teachers was new for me, and teacher educator professional developments did not exist. Other than a student evaluation survey that was sent out at the end of each semester, there were not tools for me to determine whether or not I was preparing my teacher candidates to be “classroom ready.” As a teacher educator, I implemented pedagogy that had been modeled for me when I went through my own teacher education program. A typical course session included a Power Point lecture from

the textbook, a Socratic seminar which elicited reflection and discussion from my students, and an explanation of how the newly acquired knowledge should be applied to the K-12 classroom. I assessed my candidates' ability to apply their learning by asking them to write and submit lesson plans and reflections (often without ever delivering the lesson plan to students). I had to trust that my students were able to proficiently apply their new learning with K-12 students because the feedback measures I was using in my course did not provide me with this information.

A 2014 report published by the National Council of Teacher Quality (NCTQ) confirmed that unsettling feeling I had experienced as a teacher educator (Putnam, Greenberg, & Walsh). The report examined more than 500 teacher preparation institutions across the country and concluded that the coursework grading standards for a pre-service teacher were much lower compared to other majors on the same campus. Further, nearly half of teacher candidates graduate with honors. The first component NCTQ examined was the rigor of the assignments, including actual application and mastery of teacher candidates' skills and knowledge. Programs failed this component. According to NCTQ report,

failing the first component definitely means that grades given to teacher candidates are so high, relative to those of their campus peers, that they are unlikely to serve as meaningful signals of candidates' relative readiness for the demands of teaching. (Putnam et al., 2014, p. 21)

The lack of authentic assessment in course instruction, or requirement of teacher candidate application of knowledge and skills had implications for how the teacher educator was measuring his or her own effectiveness. Without knowing what their teacher candidates did as a result of the course instruction, a teacher educator was left guessing and hoping candidates were able to proficiently apply what they had learned.

Later, as a former executive director of two large grants at a teachers college, one of my primary responsibilities was to work with faculty members to reflect on and continue to improve their teaching and the college's teacher education programs. I attended a meeting where three faculty members discussed challenges around student course evaluations. They expressed their frustration with balancing rigor and student course evaluation feedback. All three faculty members shared a common challenge—when they increased their expectations of the teacher candidates, they often observed a decrease in their student evaluation scores.

Based on my belief that student evaluations at the end of the semester should not be the only way teacher educators receive feedback about their effectiveness, my initial action research project in Fall 2015 focused on conducting in-class observations of three teacher educators using the TAP Rubric, an instructional rubric used to evaluate teacher candidate proficiency. The relationship between three different measures was explored: (1) student course evaluation scores, (2) teacher educator self-reflection scores in the TAP rubric, and (3) my observation scores.

I started the study by administering a questionnaire that measured how teacher educators perceived their own teaching effectiveness. I then proceeded to conduct two observations of each teacher educator. For each observation, I used the TAP Rubric to gather evidence and provide scores. At the conclusion of the semester, I asked the teacher educators to share their student course evaluations with me. Once I had all the data, I examined it for patterns. Table 1 shows the average scores for each instrument.

Table 1

*Overall Average Scores and Percentages of the Three Instruments (n=3)*

	Self-Reflection Score	Observation Score	Course Evaluation Score
Teacher Educator 1	97.0% (3.88)	56.0% (2.80)	84.7% (3.39)
Teacher Educator 2	97.0% (3.88)	96.0% (4.80)	95.7% (3.83)
Teacher Educator 3	91.5% (3.66)	72.0% (3.60)	92.5% (3.70)

Teacher educator self-rating scores indicated that they felt they were effective teachers. To calculate the averages for these data, I assigned each response a numerical value as follows: strongly agree (4), agree (3), disagree, (2), and strongly disagree (1). For all three teacher educators, the mean, or average, responses ranged from 91.5% to 97.0%, indicating that overall, teacher educator self-rating scores illustrated that they felt they were effective at modeling these TAP practices in their courses. When comparing the self-rating scores to the observation scores, for two out of the three teacher educators, the observation scores were much lower. The course evaluation scores, moreover, aligned with the teacher educators' self-ratings, indicating that the students felt their teacher educators were effective.

Upon close examination of the data, one common pattern amongst the three teacher educators was identified. Teacher educators tended to score themselves lower in "course rigor." This area was also the lowest average on the student course evaluations. The TAP observation rubric indicator "Activities & Materials" was used for comparison from the classroom observations, because it most closely aligned with the concept of course rigor. The challenge with this indicator, however, was that it contained eleven

descriptors, and there was only one descriptor that was directly related to “course rigor.” I was unable to examine the score by descriptor so I used the entire indicator to base the comparison results. Therefore, it was possible for teacher educators to score proficient or higher in this area without challenging their students. Table 2 shows the average scores for “course rigor.”

Table 2

*Average Scores and Percentages on All Three Measures for “Course Rigor” (n=3)*

	Self-Reflection Score (Course Rigor)	Observation Score Activities & Materials	Course Evaluation Score (Course Rigor)
Teacher Educator 1	75.0% (3.00)	60.0% (3.00)	63.0% (2.50)
Teacher Educator 2	50.0% (2.00)	90.0% (4.50)	65.0% (2.60)
Teacher Educator 3	75.0% (3.00)	80.0% (4.00)	80.0% (3.20)

The results displayed in Table 2 demonstrate that two of the teacher educators scored themselves a 3 in “Course Rigor” while the other scored him/herself as a 2. A score of a 2 in this area means “disagree” indicating that one teacher educator disagrees with the statement, “my course is rigorous.” Interestingly, the students’ scores were noticeably lower in this area as well.

In K-12 educational systems, structures have been put in place to support teacher development using data. Darling-Hammond, Wilhoit, and Pittenger (2014) described the importance of professional capacity and accountability systems. They stated, “individuals and organizations should be responsible for building their own capacity for professional practice; they should be accountable for evaluating practice and student



progress, and engaging in continual improvement based on the results” (p. 14). Taken together, if teacher educators were aware of their specific deficits, they could make improvements so they could better contribute to the development of “classroom ready teachers.”

### **Current Local Context**

At the end of November 2015, I accepted a new position at Texas Tech University. Texas Tech was one of five institutions awarded a Bill and Melinda Gates Foundation Grant. The Texas Tech grant, called U.S. PREP, was designed to improve six university-based teacher preparation programs. U.S. PREP provides technical assistance to universities in four key areas: developing strong partnerships with school districts; clearly defined teacher candidate competencies; using data for improvement and accountability; and ensuring their teacher educators are effective.

“Tech Teach,” Texas Tech’s teacher preparation program, is in one of the six universities receiving support from U.S. PREP. Over the past four years, Tech Teach program leaders have completely reformed their program to address the key reform areas using the TAP rubric, an in-service teacher evaluation framework. Texas Tech administrators chose the TAP rubric because of the supporting research linking teacher practices to student learning (Daley & Kim, 2010). Because this instrument is used as in-service evaluation framework, it made sense to adopt this framework as a pre-service tool in order to prepare teachers to be “classroom ready.”

Teacher educators utilize the TAP rubric to evaluate pre-service teacher performance. This rubric outlines detailed teaching pedagogical skills and provides a common language for analyzing teacher candidate competencies. Texas Tech’s pre-

service performance assessment includes eight instructional indicators. These indicators include:

- standards and objectives
- presenting instructional content
- activities and materials
- academic feedback
- instructional plans
- managing student behavior
- thinking
- questioning

Pre-service teachers have been required to meet proficiency in all the indicators to graduate. Therefore, it is important for teacher educators to model these practices in their own instruction as well as support their candidates' development.

In an effort to improve their teacher educators' practices, program administrators have required their teacher educators to conduct two peer observations per semester. To focus the peer observation feedback, program administrators have examined teacher candidate competencies from the TAP rubric and identified the lowest scoring two indicators. Teacher educators conducted peer observations and provided feedback to one another in the identified indicators.

While the practices described at Texas Tech University are a step in the right direction, they did not go far enough. Colleges of education have required teacher candidates to demonstrate mastery in specific content and pedagogical skills, but do not

explicitly provide teacher educators with the support to develop the practices of teaching teachers (Loughran, 2006).

In the Texas Tech example, the information gleaned from the observations was not necessarily being used to improve teacher educator effectiveness. Opportunities for structured peer debriefs, self-reflection, and student feedback had not been part of this process. This was especially problematic as a teacher educator's understanding of his/her own instructional effectiveness could serve as a basis for reflective practice. A logical next step for Texas Tech would be to promote examination of teacher educator effectiveness in different and more informative ways.

### **Purpose Statement and Research Questions**

The purpose of this study was to better understand the influence of multiple feedback measures on the practices of teacher educators. The primary formal source of teacher educator feedback had been student evaluations, which were administered at the end of each semester. Through this study, teachers collected more formative information from three sources (peer observations, self-reflections, and student surveys) to enable them to adjust their teaching in real time. Specifically, the following research questions were examined:

1. How did teacher educators engage with the teaching portfolio process?
2. In what ways did the teacher educators apply what they learned from the portfolio process to their own course instruction?
3. In what ways did the teacher educators find value in participating in the portfolio process?

## Chapter 2

### THEORETICAL PERSPECTIVES AND RESEARCH GUIDING THE PROJECT

The theoretical perspectives and other research guiding the project are presented in this chapter in two sections. In the first section, information is provided about the overarching theoretical frameworks around which the study was developed. The second section focuses on additional research and perspectives that informed the work.

#### **Theoretical Perspectives**

Two overarching perspectives provided the theoretical framework for this action research project—Lave and Wenger’s (1991) situated learning theory and Knowles’ (1978) theory of andragogy.

**Situated learning theory and communities of practice.** Lave and Wenger (1991) emphasized that learning was the result of interactions among individuals and was based on relationships among people. Situated learning theory has supported the belief that learning needs to be presented in authentic contexts where learners become involved in “communities of practice,” (1998; Wenger, McDermott, & Snyder, 2001). Wenger et al. (1998) defined communities of practice as “groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly” (p. 1).

Lave and Wenger’s (1991) situated learning theory was used to inform the study in how teacher educators can work together to engage in peer observations. Working within the presence of other practitioners affords learning through observing the skilled practices of others, as well as receiving feedback from others (Tenenberg, 2016). Further, Lave and Wenger (1991) expounded on this notion and suggested learning was

socially constructed with the support of colleagues and came about through discussion and interaction. Specifically, teacher educators engaging in peer observations have opportunities to identify problems in their own classroom, understand how their peers approach these problems, and if possible, adapt their colleagues' practices to their own settings (Papay, Taylor, Tyler, & Laski, 2015; Tenenbergh, 2016).

**Andragogy.** The theory of andragogy aligns with Lave and Wenger's (1991) situated learning theory, and emphasized the importance of adult learning be situated in context. Knowles (1978) proposed five tenets of how adults learn, including:

- adults brought experience that should be tapped in the learning context;
- adults were self-directed, autonomous learners;
- adults were oriented towards learning that was relevant to them and could be applied to solve problems;
- adults were performance centered and had a desire to immediately apply their newly acquired knowledge;
- adults were intrinsically motivated.

At the center of these tenets was the central idea that adults needed to engage in authentic, real practice to gain lasting knowledge. Further, teacher educators bring personal concerns and experiences with concrete teaching, and it should be used as the basis for reflection and growth (Korthagen, 2001). Korthagen (2001) developed the ALACT cyclical model of reflection. The ALACT reflection model supports Knowles (1978) theory of andragogy by starting with adult experiences and using them as basis for reflection. The steps include: (1) Action, (2) Looking back on the action, (3) Awareness of essential aspects, (4) Creating alternative methods of action, and (5) Trial of new

practices. Teacher educators engaged in the ALACT reflection steps as they watched videos of their teaching, considered ways to improve their practices, and applied new learning. Through a mid-term survey, candidates had opportunities to provide their teacher educator with feedback about their development as a teacher, specifically as it related to the course instruction, their teacher educator's effectiveness, and its influence on their learning. Thus, student feedback was another tool that teacher educators used as a basis for reflection.

The two theoretical perspectives —Lave and Wenger's (1991) situated learning theory and Knowles' (1978) theory of andragogy have common themes relevant to teacher educator growth and development. Experience, reflection, and collaboration play a large role in teacher educator learning. Throughout the study and at the conclusion, teacher educators used feedback from their students and peers to reflect on their own practices as teacher educators.

### **Review of Supporting Scholarship**

**Teacher educator pedagogy.** Several authors have emphasized that being a good teacher does not automatically mean one was a good teacher educator (Guilfoyle, Hamilton, Pinnegar, & Placier, 1995; Dinkelman, Margolis, & Sikkenga, 2006; Murray & Male, 2005). Murray and Male (2005) studied 28 teacher educators in their first three years of teaching higher education courses in England. The findings showed that, despite having previous successful careers in school teaching, the majority of the study participants took between two and three years to establish their new professional identities. One of the biggest challenges they faced was the development of higher education pedagogy.

Traditionally, teacher educators have often relied on telling, lecturing, showing, and guided practice (Korthagen, Loughran, & Russell, 2006) despite the recognition that active involvement contribute to student learning (Tinto, 1997). Korthagen et al. (2006) asserted, “Teaching a curriculum of presentation skills, questioning, or interpretive discussions is very different from embedding student teachers’ learning in ways that enable them to experience the ‘doing’ of the curriculum more than the information of the curriculum” (p. 1030). There is a need to re-conceptualize teacher education so that it is teacher candidate centered as opposed to curriculum focused, with specific emphasis on training teacher candidates how to teach.

Darling-Hammond, Hammerness, Grossman, Rust, and Shulman (2005) studied teacher preparation programs and found that effective programs had an agreed upon set of teaching practices that guide and assess clinical work and coursework. Programs that had clear and consistent goals, which used pedagogies linking theory and practice, were more influential at supporting student teacher learning. They posited, “Teacher educators need to consider how to develop teacher candidates’ readiness for learning about particular aspects of teaching and how to bring life theory in practice and practice in theory” (Darling-Hammond et al., 2005, p. 399). They emphasized that deliberate practice, which involved purposefully and critically rehearsing certain kinds of performances, was a key element to successful learning.

Effective teacher educators implement teacher education pedagogy that has resulted in preparing teachers who can enact teacher competencies/practices. McDonald, Kazemi, and Kavanagh (2013) argued there was a need to shift away from what

educators thought teachers needed to know toward specifying actual teaching practices or competencies.

Having clearly articulated competencies enabled teacher educators to develop teacher education pedagogies aimed at preparing candidates with those practices. These pedagogies are defined in the learning cycle framework (McDonald et al., 2013). The learning cycle framework includes four phases. It starts with introducing teaching practices to candidates through an experience, modelling, video representation, and/or engaging candidates in an analysis of their own instruction or interaction with students (McDonald et al., 2013). Loughran and Berry (2005) suggested two ways teacher educators model for their teacher candidates. The first way involves teacher educators modelling the pedagogies they expect their teacher candidates to enact. The other form of modelling involves explicit think-alouds. He described it as providing teacher candidates “access to the pedagogical reasoning, feelings, thoughts and actions that accompany our practice across a range of teaching and learning experiences” (Berry, 2005, p. 195). Through these experiences, teacher educators facilitate reflection with a specific emphasis on the relationship between teaching practices and learning outcomes. McDonald et al. (2013) emphasized the importance of helping the candidates understand why the teaching practices would support their K-12 students’ learning in ways that are either similar or different to how they are currently practicing. The second step proceeds with providing candidates time to rehearse teaching practices and get feedback in a collaborative setting. The third step requires them to enact the practice with real students, and concludes with reflection and analysis on their teaching. The pedagogy of rehearsal involves a teacher candidate enacting a teaching skill with other teacher candidates who



are playing the role of elementary students. The teacher educator plays the role of a coach and stops the teacher candidate periodically to provide in-the-moment feedback.

Following the first run-through, the teacher candidate has the opportunity to re-enact the skill while applying feedback from the teacher educator and teacher candidates. Through the implementation of rehearsals, teacher candidates are given opportunities in class to practice teaching skills in a safe place while receiving high quality feedback from their teacher educator. Providing these rehearsal opportunities prepares pre-service teachers to enact teaching practices with their K-12 students (Loughran & Berry, 2005; McDonald et al., 2013).

**Teacher educator effectiveness measurements.** Student ratings have been the most common and influential measure used to evaluate teacher educator effectiveness (Emery et al., 2003). Despite this fact, most experts agree that it is important to have other sources of evidence to provide a more accurate and reliable picture of teaching effectiveness. By gathering information from multiple measures, such as both colleagues and students, teacher educators can better gauge the effectiveness of their teaching. Berk (2005) claimed,

By drawing on three or more different sources of evidence, the strengths of each source can compensate for weaknesses of the other sources, thereby converging on a decision about teaching effectiveness that is more accurate than one based on any single source. (p. 49)

Performance-improvement evaluation systems for teacher educators need to include systems for providing meaningful feedback and learning opportunities to teacher educators. This can be accomplished through peer observations, self-reflections, and student feedback measures. Implementing multiple measures provides feedback to teacher educators through the implementation and analysis of varied sources of evidence,

creating a teaching portfolio. Wolf and Dietz (1998) defined portfolios as a collection of teachers' work over time across various contexts and accompanied by reflections.

By engaging in multiple ways to measure teacher educator effectiveness, teacher educators can document their teaching efforts and build a structure that allows colleagues to learn from one another. According to Boileau (1993), teaching portfolios allowed teacher educators to take advantage of:

reflective thinking on one's teaching, sharing of what one does with a mentor or colleague as a way to create a dialogue on teaching, and the creation of dialogue on campus about teaching as a way to end the privatization of teaching. (p. 9)

Thus, portfolios could include data from students, colleagues, and from self-reflection.

Boileau (1993) asserted:

The major contribution most advocates of portfolios mention is the perceived improvement of teaching. Portfolios increase reflection and action about teaching by: a) giving focus on teaching as part of a professor's expected activities; b) encouraging faculty to seek ways to improve their teaching by attending conference meetings on teaching, reading about teaching techniques, and creating discussions about teaching within the department and university; and c) stimulating formal and informal research on teaching. (p. 8-9)

Through the use of multiple measurements, teacher educators have the opportunity to receive feedback in a variety of ways, allowing them to be reflective, resulting in more learning and improvement (Aksit, 2016).

**Peer review.** Although research has been clear regarding the implementation of multiple sources to gauge teacher effectiveness, there is a lack of consensus about which measures to use. Berk (2005) presented twelve strategies for measuring teacher educator effectiveness. He noted that teaching practice was not just a list of courses and student rating summaries and recommended the utilization of peer observation and student ratings to provide a more comprehensive picture for informing teaching improvement.

He stated, “Peer rating of teaching performance and materials is the most complementary source of evidence to student ratings. It covers those aspects of teaching that students are not in a position to evaluate” (p. 51). Traditionally, classroom teaching in the United States has been viewed as a private profession, which occurred behind closed doors. Consistent with this perception, Ball and Forzani (2011) stated, “The widely reinforced belief that teaching is a creative art, mostly learned on one’s own, impedes the possibility of substantial growth in knowledge and improvement in practice” (p. 21). Nevertheless, notice the profound limitations the authors described about improving practice when this perspective is assumed. By comparison, providing opportunities for peer learning among teacher educators could yield many benefits to improving their practices.

Hounsel (2003) also recommended colleague feedback to assess teacher effectiveness. He recommended teachers “open their classroom doors and, rather than evaluating each other, begin studying their practices as a professional responsibility common to all” (p. 56). In a study conducted by Korthagen and Wubbles (1991), faculty members participated in peer observations and reported better interpersonal relationships with students and stronger feelings of security and self-efficacy. Hendry and Oliver (2012) similarly conducted a study and found that peer observers adopted practices enacted by the teacher being observed, thus showing that peer observation can benefit both the observer and teacher being observed. It is useful to observe others but also to gain instructional tips, ideas, or techniques, aligned with what those involved value as indicators of effective teaching (Blackmore, 2005).

Classroom observations can be used to collect information about teachers' instructional decisions and practices. Danielson (1996) argued that if observations were

done effectively and correctly, the result would be a great deal of information about the instructional strategies, professional behaviors, and delivery of content knowledge that affects student learning. Peer observation of teaching performance has allowed for colleagues to evaluate one another in the areas of content knowledge, delivery, teaching methods, and learning activities (Berk, Naumann, & Appling, 2004). When feedback was formative, teacher educators have used the evidence to improve their teaching.

**Student feedback surveys.** Through the implementation of teacher candidate feedback surveys, teacher educators can gauge student learning and attitudes and use the feedback to adjust their teaching accordingly (Calma, Webster, Petry, & Pesina, 2014). Carlson (2007) performed an action research project where he used online weekly polls with the goal of improving his practice. The formative polls allowed him to gather feedback about the course content, student learning, and the overall organization of the course. Data from the polls was used to improve the organization of the class, increase the clarity of assignments, and improve assignments. Additionally, the online polls provided students a voice in how the course was being taught. Carlson (2007) reported, “I modeled teaching of methods, such as taking the time to reflect, giving and accepting timely feedback, and using feedback to make data-driven decisions” (p. 164). By focusing on formative student feedback, teacher educators are able to make improvements to their instruction while at the same time, model effective pedagogical practices (Hampton, 2000).

**Self-evaluation.** For improvement to occur, teacher educators need to be provided opportunities to evaluate themselves. According to Patton (1990), “a good teacher is one who examines their instructional practices, develops their teacher competencies, and

evaluates [the] teaching process in accord with its influence on learners” (p. 11-12). Berk (2005) agreed and asserted, “Faculty input on their own teaching completes the triangulation of the three direct observation sources of teaching performance: students, peers, and self” (p.52). For adults to grow, they need to participate in continuous cycles of collaboration and reflection (Mezirow, 2000; Brookfield, 2009).

### **Implications for the Project**

Taken together, the theoretical perspectives and related research suggested several implications that informed the project. First, teacher educators are not being provided with adequate feedback. The current teacher educator effectiveness measures have been shown to have little influence in supporting teacher educators with valid feedback. Through the implementation of teacher educator portfolios with multiple measures (peer observations, self-reflections, and student feedback surveys), teacher educators were provided with substantial feedback and used it to improve their pedagogical practices.

## Chapter 3

### METHOD

This action research study was designed to improve teacher educator practices in order to mitigate the challenges new teachers face when they become novice teachers. While the primary formal source of teacher educator feedback had been student evaluations administered at the end of each semester, this study enabled teacher educators more formative information to adjust their teaching in real time during their class. Specifically, the following research questions were examined:

1. How did teacher educators engage with the teaching portfolio process?
2. In what ways did the teacher educators apply what they learned from the portfolio process to their own course instruction?
3. In what ways did the teacher educators find value in participating in the portfolio process?

#### **Setting and Participants**

This study was conducted with university teacher educators in Lubbock, Texas. Texas Tech was recently awarded a grant, called U.S. PREP, which was designed to improve six university-based teacher preparation programs. Of the four key areas in which U.S. PREP provided technical assistance to universities, the third area, ensuring their teacher educators were effective, was an area that had not been strategically addressed in past reform efforts in the College of Education at Texas Tech.

Participants for this action research study included six university teacher educators who taught pre-service teachers. They were chosen based upon their willingness to participate voluntarily. The sample size of teacher educators was capped at

six in order to deeply examine the intervention and its impact on the teacher educators. The six teacher educators were chosen from the total population (n = 41) of teacher educators who participated in the faculty professional development sessions.

All six teacher educators were teaching pre-service teachers within the university-based teacher preparation program. As participants in the study, they were expected to implement the intervention and follow the established timeline and expectations of the project protocol. Participants did not receive any incentives for their work in this study.

**Role of the researcher.** My role in this study was one of professional development facilitator, in addition to being executive director of a grant housed at the university. The researcher's primary function was to facilitate the intervention, conduct professional development sessions on the teacher educator pedagogy (rehearsal) as well as collect data routinely throughout the study including participant interviews and observations. After all participants were selected, the researcher met with each of them to obtain permission for their participation in the research study. The researcher also led all the professional development sessions as well as scheduled the peer triad sessions.

### **Research Design**

Through this action research proposal, teacher educators utilized multiple measures to gauge their effectiveness with the goal of using the feedback from their students and peers to improve their practices. Herr and Anderson (2014), stated action research puts the participants "in control of the research or are participants in the design and methodology of the research" (p. 1). This study employed a qualitative research design, which included the aggregation and analysis of qualitative data.

Throughout the study, participants were provided with professional development that included training in the pedagogy of rehearsal, providing feedback to peers during the triad sessions, and the administration of student feedback surveys. The measures included researcher and peer observation feedback forms, teacher educator self-reflection forms, and teacher educator pre- and post-intervention interviews (see appendices for all measures). These data were used to address the three research questions, and through complementarity of the data sources and results, a deeper and more reliable understanding of the intervention's influence on the practices of teacher educators were evaluated. Complementarity refers to one set of results enhancing, expanding upon, clarifying, or illustrating the other (Greene & McClintock, 1985).

### **Innovation**

The innovation that was implemented in this action research study involved (1) teacher educators engaging in professional development around the teacher educator pedagogy of rehearsal, (2) teacher educators using what they learned to implement the pedagogy in their college course (while being videotaped), and (3) teacher educators collaborating with peers to receive feedback about their teaching using a portfolio that consisted of two teacher candidate feedback surveys, video tapes of the pedagogy being implemented, peer feedback, and self-reflections on their own teaching.

In August, teacher educators engaged in professional development focused on the pedagogy of rehearsal. Throughout this session, my role as both a facilitator of the professional development and as a researcher was disclosed to the participants. During this professional development, the rehearsal pedagogy was modeled for the teacher educators. Further, teacher educators were provided with explicit step-by-step directions



for conducting rehearsals with teacher candidates. At the conclusion of the professional development, teacher educators were given an opportunity to generate questions for a teacher candidate feedback survey. Questions and statements were written on a Google slide presentation. Teacher educators were informed that the survey results would be synthesized and sent out to them prior to the first implementation of the rehearsal. At the conclusion of the professional development, each teacher educator was provided with directions for filming the rehearsal and administering the teacher candidate feedback survey. To support the video capture of the rehearsal, all teacher educators received an iPad and an Apple TV.

In September, the researcher synthesized the student feedback survey statements into one survey and loaded the statements into Qualtrics. The survey link was sent out to the teacher educators through email. During this time, each teacher educator video captured a 10 to 20 minute segment of a rehearsal within the course. This involved the teacher educator selecting a teacher candidate to enact a teaching skill in front of his/her class. The other teacher candidates in the course play the role of K-12 students while the teacher educator periodically pauses the rehearsing candidate in order to provide in-the-moment feedback. Once the rehearsal is finished, the teacher candidate has an opportunity to reenact the teaching skill while applying the feedback. Following the rehearsal and prior to the October professional development, the teacher educators administered the teacher candidate feedback survey asking students to provide feedback about their teaching practices.

On October 14, the teacher educators reconvened to engage in professional development and meet with their triad groups. The professional development began with

a model of the triad session process. The purpose of the model was to support the teacher educators in seeing: (1) how the video should be introduced, (2) how to utilize the feedback forms, (3) how to provide constructive feedback to peers, and (4) how to conclude each video session. During this model, teacher educators watched a sample video and observed a mock triad feedback session, referencing and utilizing the feedback forms. The feedback forms outlined the directions for engaging in the process. To ensure each teacher educator had time to show his/her video and receive feedback, each triad group was provided a facilitator. This facilitator served as a time monitor and supported the group with staying on task.

After the model concluded, triad groups were dismissed into private rooms to meet. The groups met for two hours to watch each others' videos, provide feedback, and discuss the results of their teacher candidate feedback surveys. Each session concluded with the teacher educators restating ways in which they wanted to improve their practice for the next cycle of peer observations.

Following the peer triad process, all the teacher educators met together with the researcher to debrief the collaboration time, providing an opportunity to discuss their feedback about the process as well as discuss what they learned.

This same process was repeated in November as teacher educators filmed a second rehearsal and administered a second teacher candidate feedback survey. On December 9, the teacher educators convened for the final time to engage in their peer triad groups. Following the triad sessions, the researcher conducted post-intervention interviews with all of the participants. The interviews were conducted virtually via online

Skype technology. A completed timeline with all study activities, including the role of the researcher and the participants is outlined in Figure 1.

Month	Role of the Researcher	Role of the Participant
August 2016	<ul style="list-style-type: none"> <li>• Obtained IRB approval</li> </ul>	
August 2016	<ul style="list-style-type: none"> <li>• Presented study to teacher educators and identified 6 volunteers</li> </ul>	<ul style="list-style-type: none"> <li>• Volunteered to be part of the study</li> </ul>
August 2016	<ul style="list-style-type: none"> <li>• Conducted pre-intervention interviews</li> <li>• Facilitated a training on rehearsals and facilitated the development of the student feedback survey (August 23)</li> </ul>	<ul style="list-style-type: none"> <li>• Participated in the pre-intervention interviews</li> <li>• Participated in the professional development</li> <li>• In collaboration with peers, created the student feedback survey</li> </ul>
September 2016	<ul style="list-style-type: none"> <li>• Synthesized the teacher candidate survey statements and loaded them into a Qualtrics survey</li> <li>• Coded the pre-intervention interviews</li> <li>• Prepared for the October professional development</li> </ul>	<ul style="list-style-type: none"> <li>• Filmed a rehearsal</li> <li>• Administered the teacher candidate feedback survey</li> </ul>
October 2016	<ul style="list-style-type: none"> <li>• Facilitated the professional development by providing a model of the peer triad process (October 14)</li> <li>• Observed a triad session</li> </ul>	<ul style="list-style-type: none"> <li>• Participated in the professional development</li> <li>• Engaged in the first triad session with peers (sessions were recorded)</li> </ul>
November 2016	<ul style="list-style-type: none"> <li>• Prepared for the December professional development</li> <li>• Coded the triad session recordings and peer feedback forms</li> </ul>	<ul style="list-style-type: none"> <li>• Filmed a rehearsal</li> <li>• Administered the teacher candidate feedback survey</li> </ul>
December 2016	<ul style="list-style-type: none"> <li>• Facilitated the professional development by providing a model of the peer triad process (December 9)</li> <li>• Observed a triad session</li> <li>• Conducted teacher educator post-interviews</li> </ul>	<ul style="list-style-type: none"> <li>• Engaged in the second triad session with peers (sessions were recorded)</li> <li>• Participated in post-intervention interviews</li> </ul>

Figure 1. Timeline of study.

## Instruments and Data Collection Procedures

The following section provides a detailed description of the instruments that were used in this study along with data collection procedures. This study followed a qualitative research design, which included the aggregation and analysis of qualitative data. Multiple sources of data were employed to examine the influence of the peer observations, self-reflections, and formative student feedback surveys on teacher educators' practices. The measures included researcher and peer observations, teacher educator self-reflection forms, and teacher educator pre- and post-intervention interviews.

Table 3

<i>Qualitative Data Measures</i>	
Research Question	Measure
How did teacher educators engage with the teaching portfolio process?	Post-intervention interviews Peer observation and self-reflection form Peer triad observation notes
In what ways did the teacher educators apply what they learned from the portfolio process to their own course instruction?	Peer observation and self-reflection form Post-intervention interviews Peer triad observation notes
In what ways did the teacher educators find value in participating in the portfolio process?	Peer observation and self-reflection form Pre-and post-intervention interviews

**Peer observation and self- reflection forms (see Appendix B).** After each peer observation debrief, teacher educators were given three Google observation forms, one for themselves and two for their peer observer colleagues. These forms included an area

for self-reflection, a place for each of the peers to describe a reinforcement/area of strength and refinement/area of growth, a section to self-reflect on the teacher candidate survey feedback, and a place to write what they learned through the peer observation process.

Each participating teacher educator completed two peer observation Google Forms (on their two colleagues) in October, and then again in December, using the video recordings of their colleagues at each of those time points. Teacher educator colleagues watched the videos of their lessons together, and then they discussed their findings and shared their conclusions. Having two peer observations increased the reliability of the conclusions, and also exposed each observer to multiple different classrooms. The observations stayed focused on the teacher educator pedagogy of rehearsal.

Peer observation Google forms were used to answer research questions one and three, as well as provide information on the fidelity of teacher educators to the intervention itself (e.g. did the teacher educators complete all observations of their two colleagues, and how did the teacher educators engage in the portfolio process?). Qualitative information was obtained from peer observers on evidence they saw during the observations to support their implementation of the rehearsals. Additionally, teacher educators wrote about what they felt they learned through the peer observation process. For each video debrief, it took approximately 15 minutes per observation and 30 minutes to discuss the self-reflection and peer feedback.

**Pre-and post-intervention interviews (see Appendices C and D).** At the beginning and end of the semester, semi-structured, intervention interviews were conducted with all participating teacher educators. Flick (2014) recommended semi-

structured interviews as a way to “reconstruct the interviewee’s subjective theory about the issue under study” (p. 217). The pre-intervention interview consisted of four open-ended questions asking the teacher educators about their perceptions of their own effectiveness. The post-intervention interview protocol consisted of six open-ended questions asking the teacher educator about their engagement and experience with the teaching portfolio process. The interviews assessed the fidelity of implementation through questions such as, “Were all intervention components (peer observations, self-reflections, and student feedback surveys) completed?” The survey also assessed the influence of the portfolio process on teacher educator growth through questions such as, “In what ways did the portfolio influence your teaching practices?” The interviews assessed the social validity of the intervention by asking questions about what participants liked and did not like about the intervention. Each interview lasted approximately 25 minutes and were audio recorded and transcribed. Audio recording the interviews allowed the researcher to focus on each teacher educator interviewee and effectively ask probing and follow-up questions.

**Student feedback surveys (see Appendix E).** Student feedback surveys were administered via Qualtrics twice during the semester, allowing teacher educators to reflect on student feedback and make adjustments. Following each videoed observation, teacher candidates provided feedback about their perceptions of their teacher educator’s teaching. Additionally, the survey also assessed how the course instruction supported them in their development as an effective teacher through questions such as, “The instructor teaches in a way that supports my development in the TAP indicators of focus.” Teacher educators asked all students to anonymously complete the feedback form

via Qualtrics to protect anonymity of student responders. Students were informed that all responses were private and intended to be used to improve the quality of the course. The survey took 10 minutes for students to complete. While student surveys were not used to directly answer the research questions in the project, they provided contextual information on how the students rated each class at two time points in the semester.

**Peer triad observational notes.** To further investigate research questions one and two, observational notes were collected to record how teacher educators engaged with the process. Observation notes were collected during each peer observation video debrief. Discussions were audio-recorded. After each video debrief session, the recording of the observational notes was gathered based on themes that emerged from the comments made by the participants. The researcher used the observation notes to examine catalytic validity. Lather (1986) defined catalytic validity as “the degree to which the research process reorients, focuses, and energizes participants toward knowing reality in order to transform it” (p. 272). The observation notes included documentation of whether the research process led to new insights and activism on the part of the participants.

## **Data Analysis**

**Qualitative data.** The qualitative data sources included a pre-intervention interview with each of the six participants (see Appendix C), two observations throughout the semester, two peer feedback forms (see Appendix B), and a post-intervention interview (see Appendix D). All interviews and peer triad observations were video recorded. Peer triad observation sessions were coded directly from videos, and participant interviews were subsequently transcribed and coded from the transcription.

Table 4

*Data Collection Inventory*

Data	Inventory Number
Pre-Intervention Interview Transcripts	6
Self-Reflection/Peer Feedback Forms, Triad Session 1	6
Observation Notes Triad Session 1	3
Self-Reflection/Peer Feedback Forms, Triad Session 2	6
Observation Notes Triad Session 2	3
Post-Intervention Interviews	6

According to Herr & Anderson (2014), “as with any good qualitative study, data analysis is not something that begins after the data are gathered; it begins at the start of the study and is key to the action research processes” (p. 128). Miles, Huberman, and Saldana (2013) echoed this recommendation saying, “start coding as you collect and format your data, not after all fieldwork has been completed” (p. 20). The process began with coding the pre-intervention interviews. Transcript data were read several times, and the data was initially coded for concepts using open coding (Appendix F). Initial codes were gathered into groups and then into emerging themes.

As the intervention was being implemented, data from the peer observations, self-reflections, student feedback forms, and the post-intervention interviews were collected and transcribed. The first step involved reading the transcriptions several times in order to develop initial codes. Data was initially coded for concepts using open coding (Appendix G). Strauss and Corbin’s (1998) constant comparative method was then used to analyze the qualitative data. Subsequently, initial codes were gathered into groups (Appendix H), and then into larger theme-related concepts, and then into emerging themes (Appendix I).



Throughout the coding process, a peer colleague coded one measure from each source to ensure coding reliability. When discrepancies would occur, codes were negotiated to achieve consensus.

## Chapter 4

### DATA ANALYSIS AND RESULTS

In Chapter 4, the results of the completed analyses are presented. These results were framed by the following research questions:

1. How did teacher educators engage with the teaching portfolio process?
2. In what ways did the teacher educators apply what they learned from the portfolio process to their own course instruction?
3. In what ways did the teacher educators find value in participating in the portfolio process?

Results obtained from pre- and post-intervention semi-structured interviews, observations, and observation forms were analyzed, and the data were analyzed for complementarity. Participants for this action research study included six university teacher educators who taught pre-service teachers. Pseudonyms were assigned to each participant to maintain confidentiality.

The first participant, Jennifer, had been a teacher educator at Texas Tech for twelve years. She taught literacy methods and had been a site coordinator, or clinical coach for student teachers, for four years. She held a Master's degree in education. The second participant, Nicole, had been a teacher educator for almost thirteen years and had been teaching at Texas Tech for nearly nine years. Her expertise was in math and she taught math methods courses. She held a Ph.D. in mathematics. The third participant, Amber, had been a teacher educator for four years at Texas Tech. She taught second language acquisition method courses for teacher candidates who were being certified in bilingual education. She was a doctoral student during the time of the study. The fourth

participant, Valerie, had been a teacher educator at Texas Tech for nearly three years. She taught math methods as well as a classroom management course. She held a Master's degree in education. The fifth participant, Michelle, had been a teacher educator at Texas Tech for eight years. She taught both math methods and literacy. She held a Master's degree in education. The sixth participant, Rose, had been a teacher educator at Texas Tech for six years. She taught social studies methods. She held in a Ph.D. in social studies.

The protocol for the peer discussion sessions involved the triads jointly observing each peer's video of a rehearsal during the months of October and December. Michelle, Jennifer, and Valerie were placed together in one group. They were all site coordinators who coached teacher candidates during their student teaching experience. Amber and Rose were in a group with an additional non-participant peer. This group was made up of two bilingual instructors and one social studies instructor. Nicole was in a group with two non-participant peers. This group was made up of one science and two math instructors. In both Nicole and Amber's group, there was an anchor faculty member who was the third member of the triad. The anchor faculty member had been given authority over the course and oversaw the course instructors and objectives for a particular course. As the third member in the triad, the anchor faculty members were active participants and completed all the components of the portfolio process.

### **Data Analysis Procedures**

The analysis process began by reviewing the pre-intervention interview transcripts. Pre-intervention interviews (Appendix C) consisted of four open-ended questions asking the teacher educators about their perceptions of their own effectiveness,

their perceptions about current effectiveness measures, and recommendations for changing the current measures. Four common themes emerged from the teacher educator responses to the pre-intervention interview questions (Appendix C). The related themes that emerged from the data included:

- Teacher educators did not feel as though the current evaluation measures were sufficient measures for demonstrating their effectiveness;
- Teacher educators recommended additional measures for demonstrating their effectiveness;
- Teacher educators have a desire to grow and learn;
- Characteristics of effective teacher educators.

Table 5

*Examples of Pre-Intervention Interview Responses by Common Themes*

Theme	Examples
Current Evaluation Measures Are Not Sufficient	<ul style="list-style-type: none"> <li>• You can be a great educator and prepare and do all this material, do everything. Then if the students don't like you they'll give you a bad evaluation.</li> <li>• I think they're very emotional sometimes in their responses [are dependent on]. Did they agree with how you graded such and such? Are they mad at you? Do they like you?</li> <li>• I think the questions don't represent how we teach. There's just a few on there and I just don't think it asks the right questions.</li> </ul>
Recommendations for Additional Measures	<ul style="list-style-type: none"> <li>• If we record and watch each other, I think that's a good measure.</li> <li>• Overall, my evaluations are great at the end of the semester, but I wish I had something else to measure what else the students need.</li> <li>• I think we need someone to come in and observe us and give us feedback.</li> <li>• As a teacher educator we often don't equate how our candidates' learning to our own effectiveness.</li> </ul>
Desire to Grow and Learn	<ul style="list-style-type: none"> <li>• I like learning. I like, like change doesn't scare me. I like trying new things and seeing how they work.</li> <li>• Even though I feel like a confident teacher I have so much to learn. There's so much I need to do better at.</li> <li>• I still have a long way to grow, but I ask a lot of questions.</li> </ul>
Characteristics of Effective Teacher Educators	<ul style="list-style-type: none"> <li>• Overall I think what has helped me be a little bit more effective is my background in bilingual education that I was actually classroom teacher.</li> <li>• I do not like to stand up with a Power Point and give a lecture. As an instructor, I want the students to be interactive with the lesson.</li> </ul>

Following the analysis of the pre-intervention interviews, all remaining qualitative data (i.e. peer triad observation notes, self-reflection/peer feedback forms, and post-intervention interviews) were uploaded into the HyperRESEARCH Qualitative Analysis Tool v. 3.7.3 (Researchware, 2013) to assist in the coding process. Open coding was the initial step in the analysis of all data. Drawing on the concepts from situated learning theory and the theory of adult learning, the researcher began with a preliminary list of concepts and ideas. (Corbin & Strauss, 2008). A total of 34 codes were identified in the initial analysis of the qualitative data (see Appendix G). The codes were continually revised throughout the analysis process to reflect influences of the multiple data sources. After critical reflection and continual revision as needed throughout the study and the analysis process, the 34 codes were organized within 17 groups (see Appendix H). These groups were then merged into ten major themes (see Appendix I).

## **Themes**

The themes that emerged from the data included:

- Teacher educators engaged in self-reflection and created clear refinements for improvement;
- Teacher educators engaged in problems of practice, shared common struggles, and often generated new ideas together;
- Teacher educators provided explicit, actionable feedback to one another, often referencing the TAP rubric;
- Teachers educators made adjustments in their teaching;
- Teacher educators felt as though they grew in their instructional effectiveness over the semester;

- Teacher educators learned from watching their peers' teaching through the videos;
- Teacher educators valued the expertise and insights of the specific people in their peer triad groups;
- The professional development provided models for how to engage in the rehearsal and peer feedback process;
- The rehearsals enabled teacher educators to understand the instructional struggles of their teacher candidates and felt that rehearsals supported teacher candidate learning;
- The rehearsals forced the teacher educators to be purposeful in their modeling.

Once the themes were developed, they were examined and aligned in reference to the research questions.

**Engagement with the teaching portfolio process.** The first research question explored the ways in which teacher educators engaged in the portfolio process. To answer this question, peer triad observation notes, peer feedback forms, and post-intervention interview transcriptions were examined. The related themes that emerged from the data included:

- Teacher educators engaged in self-reflection and created clear refinements for improvement;
- Teacher educators engaged in problems of practice, shared common struggles, and often generated new ideas together;
- Teacher educators provided explicit, actionable feedback to one another, often referencing the TAP rubric.

Table 6 presents the themes along with examples of statements by participants that led to the creation of the theme.

Table 6

*Themes and Examples*

Themes	Examples
Teacher educators engaged in self-reflection and created clear refinements for improvement.	“I think another good thing to look at, because I think we need to look at it holistically, is self-analysis...Like things that I can say I've done well. Things where I need to improve, because that ability to reflect is so critical to quality teaching and growth” (Post-intervention interview, September 1, 2016).
Teacher educators engaged in problems of practice, shared common struggles, and often generated new ideas together.	“Students struggled with the concepts and it was hard to get a volunteer because I didn't want it to be a negative experience for them” (Peer triad session, October 14, 2016).
Teacher educators provided explicit, actionable feedback to one another, often referencing the TAP rubric.	“For reinforcements, I put you shared your objective and goal. You addressed the pacing and motivating your students. You did a nice job sandwiching your feedback with a grow and glow...you did relate it back to the TAP rubric” (Peer Triadsession, October 14, 2016).

The portfolio process included engaging in the three professional development sessions, video-taping two rehearsals, administering two teacher candidate surveys, and participating in two peer triad sessions. All six of the participants completed all components of the portfolio process. The protocol for the peer triad component of the study involved the triads jointly observing each peers' video of a rehearsal during the months of October and December. Teacher educators were placed in groups of three with



peers who taught a similar content area or held a similar position within the college of education. The triad groups were provided with their own private room, a facilitator, and were given two hours to engage in the session. Each teacher educator showed a 10 to 20-minute video of his/her teaching. Following the video, the teacher educator would self-reflect based on his/her observations. The session continued with open dialogue and feedback from peers, and concluded with sharing improvement areas. This process repeated for each teacher educator.

Based on the researcher's observations, the facilitator played an essential role. The facilitator would often open the sessions, keep track of time, as well as utilize the feedback forms to keep the discussions focused. The facilitator ensured that teacher educators had a clear understanding for improving their instruction and would often prompt them to articulate their areas for improvement. During the sessions, the teacher educators were self-reflective and created clear refinements for improvement. The discussions stayed focused on the implementation of their rehearsals, the TAP rubric, and providing explicit feedback to one another.

During the peer triad sessions, teacher educators were provided electronic feedback forms via a shared Google document. This tool allowed each of the peers to access one another's forms so that they could provide feedback. The top of the forms outlined the directions for engaging in the triad process as well as provided a space for the teacher educators to write their feedback to their peers. On one hand, the forms allowed for flexibility in the peer triad discussions, and on the other hand, they also supported teacher educators with staying focused. In the post-intervention interviews, two of the teacher educators mentioned they liked the flexibility of the forms. Most of the

teacher educators utilized the forms to record reinforcements and refinements for their peers.

*Teacher educators were very self-reflective and they created clear refinements for improvement.* After teacher educators showed their video, they took several minutes to self-reflect out loud in front of their peers. Oftentimes, they would identify strengths and weaknesses in their own teaching. Their honest and transparent self-reflections helped to open the conversations amongst the peers. An example of this is with Jennifer. During the peer triad session, she stated:

I didn't provide any in the moment feedback. Managing student behavior was my refinement because they were getting silly. I could've done an attention getter. So my next steps are managing student behavior, creating norms for the class, and implementing rehearsal in the correct way so it allows me give in the moment feedback. Watching yourself on video is hard. (Peer triad session, December 9, 2016)

Teacher educators tended to be very critical of themselves and often focused on their areas for growth rather than identifying their areas of strength. After Michelle showed her video, she self-reflecting stating, "A lot came to me after the class was over. Her [referring to the student rehearsing] instruction was hard to follow and it affected the rehearsal. I should have prepared the students for rehearsal and not asked for volunteers" (Peer triad session, October 14, 2016). As Rose self-reflecting, she wasn't happy with the feedback she provided the student who was implementing the rehearsal. She stated, "I gave her feedback during the rehearsal, but it wasn't good" (Peer triad session, October 14, 2016).

After Nicole showed her rehearsal video, she noticed that her teacher candidates had a difficult time providing feedback to the student who was rehearsing. During her self-reflection, she stated, "I was trying not to be the only one speaking, critiquing each

other is not something they want to do. They want to say, ‘good job’” (Peer triad session, October 14, 2016).

Oftentimes, teacher educators noticed little nuances in their speech and behavior. After watching Valerie’s video, Valerie reflected and said, “I think I need to speak more professionally. I was using a lot of ums. I do it more when I am nervous on camera (Peer triad session, October 14, 2016). Michelle reflected stating, “I say ‘sounds good’ way too much (Peer triad session, October 14, 2016). Several of the teacher educators had commented that it was difficult for them to watch their own video, especially in front of their peers. Jennifer’s quote provided an example of how she felt:

You know, watching yourself on video is hard. I make my students do it all the time and it's different when I'm in the saddle or whatever. Then to watch myself in front of other people, that was huge. I have a lot of areas to work on. I think that I gleaned that from watching myself in front of my colleagues and just really watching. We had to watch ourselves before, but I could fake it or I could watch a little bit and know enough. This was some real accountability that you had to watch yourself in front of your friends and then tell your friends what you think you did well and what you need to work on. (Post interview, December 12, 2016)

***Teacher educators engaged in problems of practice, shared common struggles, and often generated new ideas together.*** Much of the peer conversations were focused on the struggles they faced as they implemented the pedagogy of rehearsal. For most of the teacher educators, this was their first time implementing the pedagogy of rehearsal with students. The pedagogy involved a teacher candidate enacting a teaching skill with other teacher candidates who played the role of elementary students. The teacher educator played the role of a coach and stopped the teacher candidate periodically to provide in-the-moment feedback. Following the first run-through, the teacher candidate had the opportunity to re-enact the skill while applying feedback from the teacher educator and teacher candidates.

Teacher educators struggled with the idea of pausing students. During the triad session one, Rose shared with her peers that she felt uncomfortable because it felt like she was interrupting students. Valerie held similar views and expressed, “I wasn’t sure how far to let them go in the beginning before pausing them. I felt like she did a good job as the teacher candidate implementing the feedback. She didn’t let her break her stride” (Peer triad session, October 14, 2016). After Jennifer showed her video, she reflected and stated, “I think I popped in too much. I didn’t trust her so I was popping in a lot. That’s my refinement- that I could know what she’s going to do so I wouldn’t have to jump in so much” (Peer triad session, October 14, 2016). Nicole struggled with getting a teacher candidate volunteer to conduct the rehearsal. She asserted, “students struggled with the concepts and it was hard to get a volunteer because I didn’t want it to be a negative experience for them” (Peer triad session, October 14, 2016).

Another challenge two triad groups faced was how to engage all teacher candidates during an implementation of rehearsal. During Jennifer’s video segment, she said, “I was thinking about this when we watched the model...how to engage the rest of the students. Could we do some modeling, praising, stop and turn and talk? (Peer Triadsession, October 14, 2016). Michelle responded with a suggestion saying, “I think mine [referring to her area for improvement] goes really well with yours. Before you begin the lesson, can you provide the key questions you will ask after the rehearsal? (Peer Triadsession, October 14, 2016).

After viewing Nicole’s video, her peer reflected, “I am still thinking about how you engage all of the teacher candidates” (Peer Triadsession, October 14, 2016). Later, following extensive discussion around this, the peers shared new ideas and strategies. In

the second peer triad session, they explained how they changed the way they implemented rehearsals, as a result of their engagement with their peers during the first triad session, in order to ensure all candidates were involved. One peer explained:

Instead of whole class rehearsal, we broke them into groups and gave them all jobs. All the feedback comes from students so that it is student centered. We collected their feedback about the rehearsal. Students liked the feedback from their peers as well as liked observing and examining their peers' teaching. (Peer Triadsession, December 9, 2016)

Another challenge that two teacher educators discussed during their triad sessions was the amount of time rehearsal required. When previewing her video during the second triad session, Rose commented, "It's hard to have the students re-do the lesson with the course time constraints" (Peer Triadsession, December 9, 2016). During Valerie's self-reflection, she questioned, "How do you do rehearsal, making it time worthy-too much too little? (Peer Triadsession, October 14, 2016).

Other struggles with rehearsal involved how to decide when they were appropriate to implement. During the second triad session, Amber received feedback from a peer who suggested, "focus the rehearsal on a specific skill and have teacher candidates use a rubric to provide feedback" (Peer Triadsession, December 9, 2016). The pedagogy of rehearsal was a vehicle that enabled teacher educators to open one another's classroom doors to each other. The rehearsal videos provoked inquiry and challenged teacher educators to think about the teaching practices that matter most. During Rose's second video, a peer questioned the teaching practice that was shown, "Was this skill worthy of rehearsal?" (Peer Triadsession, December 9, 2016). These content discussions showed how the participants identified common challenges in the

pedagogy of rehearsal, engaged in problems of practice, and sometimes derived new ideas and solutions.

***Teacher educators provided explicit, actionable feedback to one another.***

Throughout the discussion, there were frequent examples of peers providing specific, focused feedback to one another. This code appeared 42 times throughout the analysis of the observations and feedback forms. After teacher educators viewed their videos and self-reflected, the conversation was opened to the peers. The feedback was focused with evidence to support the strengths and areas for growth. Nicole's peer provided an example of this:

Nicole tied it specifically to the components of the rubric. Another thing I liked, you didn't interfere with the teacher candidate. You built on what the teacher candidates said. I was impressed with their critiques. You coached the teacher candidates on how to provide feedback. You tied it to the TEKS. Two types of learning took place. Teacher candidates learned how to teach and they learned how a teacher can pose questions for academic feedback. It was good that the context was set. For next time, as they are watching the rehearsal, put the teacher candidates in an authentic context that they are actually teaching kids. (Peer Triadsession, October 14, 2016)

In response, another peer stated, "I noticed that the teacher candidates responded to your questions instead of interacting with one another" (Peer Triadsession, October 14, 2016).

As more feedback was shared, peers made suggestions for improvements. One peer shared what he does to encourage participation using a shared white board space. The facilitator added, "Another thing for consideration is using a Google document to capture the teacher candidates' feedback for the student who is rehearsing" (Peer Triadsession, October 14, 2016).

After Valerie shared her video, her peers began providing her with feedback. One peer stated, "For reinforcements, I put you shared your objective and goal. You addressed

the pacing and motivating your students. You did a nice job sandwiching your feedback with a grow and glow...you did relate it back to the TAP rubric” (Peer Triadsession, October 14, 2016). Another peer commented, “I too noticed your connections with TAP. Our indicators have Teacher Knowledge of Students and Respectful Culture. You were a great example of Academic Feedback. We all know that this is an indicator our students have struggled with” (Peer Triadsession, October 14, 2016).

Jennifer’s group was really encouraging to one another, providing a lot of positive feedback. After viewing Jennifer’s video, Valerie exclaimed, “Great job at setting up the rehearsal. Pre-work was really good and strong. I thought it was important that you held the book up. Use a doc camera...you used visuals. Wait time is good. You are in the moment with your students...I think you are awesome” (Peer Triadsession, October 14, 2016). Another example of this was with Michelle. When providing feedback to Jennifer, Michelle stated, “For reinforcements- I thought your pauses were purposeful. I didn’t feel like you paused too much. You provided strong academic feedback. I felt like the students had a purpose and your questions were purposeful and academically focused” (Peer Triadsession, December 9, 2016).

After watching Amber’s video, her peers provided her feedback stating:

For a reinforcement, you had the students model what a hands-on activity looks like. You gave specific feedback to students trying to both the SIOP and TAP. You asked students to think about what they would do differently. For your area of refinement, try to make the connection from what they are learning in class to their field placement. (Peer Triadsession, October 14, 2016)

Rose also received specific feedback from her peers. Her peers said:

You always complimented the students on what they were doing well. Students were able to practice and role play in the classroom. Don’t be afraid to give constructive criticism. Set this up at the beginning of class. As you were

stepping out try to get the students to think of the connections they could make to their placement. (Peer TriadSession, October 14, 2016)

Overall, the portfolio process provoked self-reflection and fostered discussion around teacher educator practices.

**Teacher educators' application of new learning.** Through participation in this study, teacher educators utilized feedback from multiple sources to create goals and improve their teaching during the semester. To answer this question, triad observation notes and post-intervention interview transcriptions were examined. The theme that emerged from the data included:

- Teachers educators made adjustments in their teaching;
- Teacher educators felt as though they grew in their instructional effectiveness over the semester.

Table 7 presents the themes and examples that emerged from the initial codes.



Table 7

*Themes and Examples*

Themes	Examples
Teachers educators made adjustments in their teaching	In the second peer triad session, one group explained how they changed the way they implemented rehearsals in order to ensure all candidates were involved. One peer explained, “Instead of whole class rehearsal, we broke them into groups and gave them all jobs. All the feedback comes from students so that it is student centered. We collected their feedback about the rehearsal. Students liked the feedback from their peers as well as liked observing and examining their peers’ teaching” (Peer Triadsession, December 9, 2016).
Teacher educators felt as though they grew in their instructional effectiveness over the semester.	“I think modeling was maybe my biggest [area of growth]. I guess you would call it the 'step in, step out' when I would do certain things and I would point it out” (Post-interview, December 13, 2016).

*The observation and post-intervention interview data provided evidence that the teacher educators were able to utilize feedback to make adjustments in their teaching during the semester.* After implementing rehearsals in her classroom, Michelle was able to identify who was struggling. She was able to immediately monitor and adjust during her teaching in order to provide intentional support to her teacher candidates. During her post-intervention interview, she stated, “With content-area literacy I had a lot of growth there, like how to help my struggling students” (Post-interview, December 16, 2016).

Teacher educators took the student feedback seriously and were able to make immediate changes in their teaching. Jennifer explained this in her post-intervention interview when she claimed:

The first survey, it was really eye-opening. One of the comments was, “So it's been fun to practice these reading strategies in class, but it would be amazing to see a video of our kids.” That used to be all I did. This semester, I went the complete other side and didn't really think about it. We were just doing rehearsals and we hadn't watched any videos. I think that was pretty powerful, that I could come back in October and say, “I read your surveys. One of you is brilliant. You said ‘Why can't we watch a video,’ and I was like, oh my goodness, we haven't watched videos.” I think that showed them several things. That I read their feedback, that I use it to guide my teaching, and how easy it is to get the stuff you're doing and get so on, okay I'm going to do rehearsals, rehearsals, and I forgot about the stuff I'd done in the past. That was survey one. Survey two, one of the comments was, academic feedback on Blackboard. I was like, something about my feedback wasn't consistent on Blackboard. At first I thought, I don't know if academic feedback is my area. Then what was interesting is I watched my video and academic feedback really stood out to me as an area that I wasn't strong in on that recording. That helped me to think, oh maybe the students gave the example of Blackboard and that is a part of academic feedback. That wasn't as powerful to me as when I saw it on the video. Does that make sense? Maybe that student is onto something. Maybe I don't think I'm as strong as I think I am in academic feedback because not only was this a comment, but it was my lowest score in the numbers. Does that make sense? There was only one comment, but it was my lowest score on the numbers. Then I saw it in the video. I was like, whoa. I left Friday going, wow I didn't come here thinking that was my area to grow, but I'm leaving really thinking about that for the Spring. My students struggle in academic feedback and do they struggle because I'm not strong? What do I need to do to improve in that area? That was really interesting to me that they all correlated there. Yeah. It's all things that I wouldn't have taken time to do, right? Because I do the surveys at the end of the semester and right now I'm tired and would I look at them in January when I'm busy? They used to be put in our mailbox and now they're online, so you have to click, click to read them. Would I do that? Yeah, there was power in that and doing them twice. Even though it was a really short time frame, scores went up and some of the positive were things that I hadn't really thought about, oh okay, they like that. I should continue that. I learned from the positive comments too. (Post-intervention interview, December 12, 2016)

When prompted to talk more about the specific changes she made, Jennifer described:

As I was sitting there and reading those [the student feedback surveys] and thinking about, well what could I do, I thought well, easy. I could make a rubric. I could share it with them. Most of the time I take off points because it's not aligned. Your objective, your critique, your assessment didn't go, and your activities and materials. There was something that was off there. I need to share that with them at the beginning and then they know how I'm grading. That's part of academic feedback with written feedback. I thought it was a good suggestion

for me and something easy I could fix. (Post-intervention interview, December 12, 2016)

Nicole also used the student feedback to reflect. Specifically, she had thought she was teaching and labeling the TAP rubric really explicitly; however, her student feedback showed that they weren't seeing those connections in her teaching. This alarmed her. She stated:

I get very disappointed when I see the results [referring to the student feedback surveys] after our two little rehearsals, because they show me how the students felt. It was in the 70 percent, because tying it to those TAP indicators. We're focusing, because of the things that we're talking about, although it feeds into the TAP indicators, students do not see that. Even though we talk about it in class, it's like they hone in on "This is Math, Math, Math" and it's not the TAP indicators. I always felt like I talked about the TAP rubric and that it was embedded in there. The teacher content knowledge or whatever descriptor and indicator we were talking about. What helped me is when I see that, honestly, that those scores are not where they need to be from the students. Like I said, it's made me think more about how I've got to embed that in and weave it in, because just talking about it - all right, this fits under here, apparently it's not sufficient for them. I've got to figure out how I'm going to weave this in throughout, continually. It has helped me to think about those things that I thought were being done sufficiently and appropriately, but they apparently aren't. Not to the students' needs. (Post-intervention interview, December 16, 2016)

It was clear that the teacher educators sincerely cared about their students' perceptions of their teaching. Amber reflected and stated, "I think the survey helped and halfway through the semester, I did change some - not the syllabus, not the content, but the delivery of it (Post-intervention interview, December 16, 2016). Teacher educators were open to hearing from their students and they were willing to make adjustments as needed.

***Teacher educators felt as though they grew in their instructional effectiveness and identified areas to continue to focus on for improvement.*** When asked if she saw any changes in her teaching, Valerie explained,

I think modeling was maybe my biggest and, I guess you would call it the 'step in, step out' when I would do certain things and I would point it out. That's what this

might look like and I also did a better job of talking about things that I had seen in the field. I would use student examples. Say, for example, I saw Johnny when I was in his room on Thursday, this is how he used academic feedback and I really saw them light up to that in class and then start talking more about how that applied and what the effect was. (Post-interview, December 13, 2016)

In her post-interview, Nicole stated, “I think overall, the rehearsals have helped me to become better, because I can really attend to their areas that they’re struggling with and really hone in on those things, very specifically as we’re going through and listening to them” (Post-interview, December 16, 2016).

When asked about making changes to her teaching, Amber described how she was more intentional about making connections to the field. She stated, “I tried to make as many connections as possible when I was teaching” (Post-intervention interview, December 16, 2016). Michelle explained how she wants to be more intentional about incorporating Activities and Materials in her teaching. She explained:

To me that’s like a great one to add in, that’s an easy fix to make it maybe more engaging with my students, where it’s not so much me talking, but it’s a lot more of them working in small groups and bringing in more things for them. Like when we were talking about a certain TAP indicator, have activities that they can do with them. That opened my eyes to see that’s what I want to focus on in the spring, is really my activities and materials. I need to grow in a lot of areas, but those are my main two. (Post-intervention interview, December 16, 2016)

For Rose, watching her peers helped her to see how they approached problems of practice that she was experiencing. Specifically, she spoke about strategies for choosing a teacher candidate to conduct a rehearsal and ways to encourage all students to stay engaged in watching the rehearsal. She explained,

my peer observer had her students practice before the rehearsal, trying to help the students feel more confident when they rehearse in front of the class. I learned that the peer made a rubric for the teacher candidates to use while they watched rehearsal. (Post-intervention interview, December 16, 2016)

**What teacher educators valued about the process.** The third question explored the ways in which teacher educators found value in the process. To answer this question, peer triad observation notes and post-intervention interview transcriptions were examined. Six themes emerged from the data that included:

- Peer triad sessions provided opportunities for thoughtful collaboration and discussion;
- Teacher educators learned from watching their peers' teaching through the videos;
- Teacher educators valued the expertise and insights of the specific people in their peer triad groups;
- The professional development provided models for how to engage in the rehearsal and peer feedback process;
- The rehearsals enabled teacher educators to understand the instructional struggles of their teacher candidates, and they felt that rehearsals supported teacher candidate learning;
- The rehearsals forced the teacher educators to be purposeful in their modeling.

Table 8 presents the themes and examples that emerged from the initial codes.

Table 8

*Themes and Examples*

Themes	Examples
Peer triad sessions provided opportunities for thoughtful collaboration and discussion.	“Doing so with site coordinators who know the same teacher candidates, who go through the same processes, I was comfortable and so whatever they said, good, bad or ugly, it didn’t hurt my feelings., I felt like I could grow from it and I felt like they could be honest and they were honest” (Post-intervention interview, December 13, 2016).
Teacher educators learned from watching their peers’ teaching through the videos.	“While watching their videos I also learned from them, like things to incorporate while I'm teaching. (Post-intervention interview, December 16, 2016).
Teacher educators valued the expertise and insights of the specific people in their peer triad groups.	“I could say they respected my opinion and that it had value and that we were doing this to make everyone grow” (Post-intervention interview, December 13, 2016).
The professional development provided models for how to engage in the rehearsal and peer feedback process	“I was thinking about this when we watched the model, how to engage the rest of the students” (Peer Triadsession, October 14, 2016).
The rehearsals enabled teacher educators to understand the instructional struggles of their teacher candidates, and felt that rehearsals supported teacher candidate learning.	“I think overall, the rehearsals have helped me to become better, because I can really attend to their areas that they’re struggling with and really hone in on those things” (Post-interview, December 16, 2016).
The rehearsals forced the teacher educators to be purposeful in their modeling.	“I had never demonstrated to students before the method of modeling. Rehearsal forced me to model for my students” (Post-interview, December 16, 2016).

*Peer triad groups provided opportunities for collaboration with colleagues who shared similar content and job expertise.* The data from the post-intervention interviews, observations, and feedback forms were complementary and provided evidence that the peer triad sessions were a safe place to be vulnerable where peers were open to sharing and receiving feedback. When asked about the most valuable component of the portfolio process, Jennifer stated:

The triad sessions... that was the favorite and just that time to talk with our colleagues that we don't have time to talk to. Even site coordinator to site coordinator, right? That was huge. I don't love watching a video of myself teaching, but I learned from it. It made it powerful to watch it right there with your colleagues too...I think the amount of time we had in our triad groups was perfect. Having that time just to share with our colleagues. (Post-intervention interview, December 2, 2016)

Nicole discussed the importance of having time to talk with colleagues when she stated:

I think the part that I enjoyed the most, well there were two pieces that I really, really enjoyed. Of course, the talking with my colleagues about it, and talking with people that understand the content. That was really important to me, because then we could talk specifically about things that were going on. That was extremely valuable to me. (Post-intervention interview, December 16, 2016)

Teacher educators valued having the time to collaborate with colleagues. Michelle commented, "I loved working with Valerie and Alison. I felt like they took this very seriously, and I did too" (Post-intervention interview, December 16, 2016).

The need for collaboration with colleagues with whom you trust was mentioned by most teacher educators in the post-interviews. Valerie recalled a time when she engaged in a peer review process in previous years. She discussed how this experience was different when she stated:

I really liked having other site coordinators, who do the same thing that I do, because I value their opinion, but when we had to do peer review as a program, I had to do that with other instructors and there was a disconnect to having that feedback, and especially being new to tech and being at the bottom of the pole. It

was very intimidating and I think they were probably offended that I had anything to say about their teaching. Doing so with site coordinators, who know the same teacher candidates, who go through the same processes, I was comfortable and so whatever they said, good, bad or ugly, it didn't hurt my feelings. I felt like I could grow from it and I felt like they could be honest and they were honest. (Post-intervention interview, December 13, 2016)

***Teacher educators learned from watching their peers' teaching through the videos.*** Jennifer noted,

We don't watch each other teach. Listening to the language that my peers used helped, or how they structured their classroom or the environment. Just from those 15 minutes, what I could see in the way they set up their classroom and the way they talked with their students. That was powerful. (Post-intervention interview, December 12, 2016)

Michelle agreed and shared, "while watching their videos I also learned from them, like things to incorporate while I'm teaching (Post-intervention interview, December 16, 2016). Rose shared, "I found value in the process, especially the student feedback and seeing my peers teach" (Post-intervention interview, December 16, 2016). When asked to provide a specific example of what she learned from her peers' videos, she recalled:

When I watched myself on video, it was at first uncomfortable. It helped to know that my peer observer had her students practice before the rehearsal, trying to help the students feel more confident when they rehearsed in front of the class. I learned [from watching my peer] that the peer made a rubric for the teacher candidates to use while they watched rehearsal. (Post-intervention interview, December 16, 2016)

While engaging in the peer triad groups, Nicole's peer noticed that although their assignments were similar in structure, they teach the assignment in different ways. Her peer stated, "I noticed you broke apart the whole D & E and reflected on each component. I reflect on the whole D & E" (Peer triad session, October 14, 2016). It was evident that he was rethinking how he should teach the assignment after he viewed Nicole's instructional approach. Jennifer had a similar experience after watching



Michelle's video. Immediately after the video concluded, she exclaimed, "I found a lot of refinements for myself!" (Peer triad session, October 14, 2016).

*Teacher educators valued the expertise and insights of the specific people in their peer triad groups.* An example of this is when Nicole stated:

Our little group was the Math Science group and really hearing Dillan provide feedback and hearing Jian provide feedback. I really relish that because knowing that content area. It's more than just generic good teaching. I enjoyed that very much. I think that was that part that was really, really beneficial to me. (Post-intervention interview, December 16, 2016)

It was evident that Jennifer's group had really strong rapport with one another. During their triad sessions, they often complimented one another. An example of this is when Valerie told the facilitator, "I am very comfortable with these ladies." Valerie also asserted, "I also felt like Michelle and Allison were the same, but I could say they respected my opinion and that it had value and that we were doing this to make everyone grow" (Post-intervention interview, December 13, 2016). In their sessions, it was normal to hear things like, "You are really good at what you teach," "I think you are awesome," and "that's a good idea."

In Nicole and Amber's triad groups, there was an anchor faculty member placed with them. The anchor faculty member was similar to a course coordinator who oversees the course instructors and content for a particular course. In these two groups, it was evident that having the anchor faculty member added a unique dynamic to the discussion. In Nicole's group the anchor faculty member would often co-teach lessons with her. When Nicole engaged in self-reflection, he extended the reflection and added his own ideas. It was extremely evident that Nicole had the utmost respect for him and at the same time, there were times when they weren't in agreement. An example of this is when

Nicole analyzed her student feedback surveys in front of her peers. After reading both sets of student feedback surveys, she noticed that her students were not seeing connections to the TAP rubric. In the post-intervention interview, Nicole noted:

It's interesting because I'm kind of walking a tightrope, because Dillan's like, "We don't, you know, the TAP rubric is too generic." I'm like, "Well, it is generic," but we've got ... bottom line, whether it is or not, that's what we're using and that's what they have to use. I have to help them. We have to make those connections for them. I haven't won Dillan totally over with that argument yet, but I'm working on him. (Post-intervention interview, December 16, 2017)

In Amber's group, the anchor faculty member had written the course lesson plan and had observed Amber's teaching. Having the anchor faculty member in the group led to new insights about the course materials, and they were both in agreement about how to improve the coursework. After watching Amber's video, Amber and the anchor faculty were not happy with how the teacher candidates were rehearsing vocabulary development strategies. The anchor faculty noted, "We need to update the vocabulary Power Points to include visuals" (Peer triad session, December 9, 2017).

***The professional development provided models for how to engage in the rehearsal and peer feedback process.*** The initial professional development at the beginning of the semester supported the teacher educators in understanding and enacting a new teacher educator pedagogy called rehearsal. During the peer triad sessions, the teacher educators often made references to the professional development sessions and how rehearsal was modeled for the participants. Jennifer provided an example of this when she was reflecting with her peers. She stated, "I was thinking about this when we watched the model, how to engage the rest of the students" (Peer Triad session, October 14, 2016). Michelle also referenced the model when she stated, "My students gave me feedback about wanting to see guided reading lessons, when we saw the model, it

clicked. We were inspired by the guiding reading model that was demonstrated to us in August” (Peer Triadsession, October 14, 2016).

***The rehearsals enabled teacher educators to understand the instructional struggles of their teacher candidates, and many felt that rehearsals supported teacher candidate learning.*** During Nicole’s post interview, she stated, “I think overall, the rehearsals have helped me to become better, because I can really attend to their areas that they’re struggling with and really hone in on those things, very specifically as we’re going through and listening to them” (Post-interview, December 16, 2016). Nicole also described how rehearsals supported her teacher candidates’ ability to provide academic feedback to one another. She stated:

I got really excited listening to the students talk to each other about the strengths and ways to grow because it became much richer, their conversations as opposed to just “Good job.” There's still a lot of ... I don't know exactly what to say, but that diminished as we went through the semester. Those last, like the second rehearsal, where they broke into three different groups, it was a very rich, in my opinion, it was very rich conversation with each other. Now, what was interesting was we had them afterwards fill out what was most valuable to them. The teacher candidates that were actually presenting said the most valuable part to them was the feedback from their peers. The teacher candidates who were watching said the most valuable part to them was watching the peer teach it. If there was a way, I think if I were to restructure this again, it was like micro teaching. I would flip it. I wish we had more opportunities that we could do it more often, where everybody gets a chance to present, but when we have classes of 26, we can't do it. (Post-interview, December 16, 2016)

As Michelle observed her candidates implementing rehearsals, she was able to identify their instructional weaknesses and make adjustments in her teaching to support her struggling candidates. She explained:

The first time we saw the rehearsal with a literacy lesson, right away, Alison and I were onboard, like we knew that could really add a lot to our course, because we’re the main two that teach it right now. I think the rehearsals really were beneficial. The feedback from Jennifer and Valerie was great because I struggle when I have a teacher candidate that is weak. I got really great feedback from

them on what to do differently. After watching a weak student do a rehearsal, I realized right away I need to be part of her small group. It's like I had to sit down and kind of embed myself. I feel like she grew as a TC, by me helping her see how to simplify her lesson. She was thinking way bigger than her student could grasp. With content-area literacy I had a lot of growth there, like how to help my struggling students. (Post-interview, December 16, 2016)

***The rehearsals helped the teacher educators to be purposeful in their modeling.***

During the post-conference, Rose stated, "I had never demonstrated to students before the method of modeling. Rehearsal forced me to model for my students" (Post-interview, December 16, 2016). Michelle also felt that the rehearsal process revealed a need to be more intentional in her modeling. She said:

I would say the biggest thing is modeling, because with the rehearsal we really had to model like our expectations for their guided reading time with their kiddos. I think before we were kind of just throwing them out to the wolves and saying, "Good luck." With the rehearsal it really made us think about, "How are we going to model it?" Then throughout the semester we were really trying to start out with us modeling it, but then we handed over to the teacher candidates and let them start modeling it as well. I think that component made it not so stressful on our kids to do the guided reading lesson, like they didn't feel kind of abandoned. When I didn't realize we had abandoned them before, but we really had, we talked to them about it, but we really never modeled what we needed it to look like with the students. (Post-interview, December 16, 2016)

During the second peer triad session, Nicole commented, "This is a good way to develop modeling" (Peer triad session, December 9, 2016).

As teacher educators engaged with their videos and their peer and student feedback, several of them discussed that they liked replicating the process that teacher candidates engage in and they liked having the multiple cycles of feedback over time.

During the post-interview, Michelle stated:

I also liked kind of being in the same shoes my TC's are in, like finding in my own teaching what's my own refinement and what's my own reinforcement, just to help me grow. Like I said in the eight years we've been at Tech, we haven't really had this. I mean U.S. PREP I feel like is kind of, they're changing us which is going to change our teacher candidates, like they're making us more effective,

and it's going to have such a huge effect on future teachers. (Post-intervention interview, December 16, 2016)

Valerie expressed, "I like having the feedback because I think it's the same way as students having to watch their video and script and score and have those conversations. It's the same process..." (Post-interview, December 13, 2016). Rose reflected on the process and stated, "I liked the peer feedback and seeing what others are doing and watching my peers teach. I also liked having the student feedback throughout the semester instead of waiting to the end. I found value in the process (Post-interview, December 16, 2016). Valerie noted, "I like having it be more than once through the semester and my students did too" (Post-interview, December 13, 2016). Jennifer agreed and asserted, "There was power in doing them twice. Even though it was a really short time frame, scores went up and some of the positive were things that I hadn't really thought about, oh okay, they like that. I should continue that" (Post-interview, December 12, 2016).

Overall, the results of this study indicated that the teacher educators benefited from the portfolio process. Participants engaged in the process, changed their teaching based on this early and ongoing feedback, and found value in the process. The process enabled them to get feedback from their students and to learn from their peers as they observed one another's teaching. While the teacher educators expressed challenges with the implementation of rehearsal, they also described how it helped them understand how to model more effectively as well as attend to their struggling students. Further, the pedagogy of rehearsal provoked inquiry and allowed teacher educators to generate solutions together. It was evident that all participating teacher educators valued the

collaboration with their peers and appreciated the opportunity to thoughtfully discuss their teaching with peers who truly understood the issues and struggles they were having . These positive results are encouraging for the continued implementation of the portfolio process in the future.

## Chapter 5

### DISCUSSION

The purpose of this study was to better understand the influence of multiple feedback measures on the practices of teacher educators. As noted in the literature review, colleges of education have required teacher candidates to demonstrate mastery in specific content and pedagogical skills, but have not provided teacher educators with the support to develop the practices of teaching teachers (Loughran, 2006). Additionally, student course evaluations have been the most common and influential measure used to evaluate teacher educator effectiveness (Emery et al., 2003). The challenges with these measures is that they have not supported teacher educators with improving their instruction (Simpson & Siguaw, 2000). Further, because they are administered at the end of the semester, teacher educators have not been able to utilize the results to make improvements in their teaching, in real time, throughout the semester.

The teacher educator portfolio process enabled teacher educators to engage in professional learning around the teacher educator pedagogy of rehearsal, receive feedback in multiple ways, and utilize the feedback to make changes in their instruction. Because the process was cyclical, the measures enabled them to set goals, apply new learning, and engage in continual reflection and growth. The results showed that the teacher educators valued collaborating with colleagues and receiving feedback from their students and peers. Further explanation and discussion regarding the results of the study are included in this chapter. In addition to the findings, lessons learned, implications for practice, implications for research, and concluding thoughts are also included in this final chapter.

## **Teacher Educators' Engagement with the Portfolio Process**

The first research question in this study investigated how teacher educators engaged in the portfolio process. All six teacher educator participants completed all components of the portfolio. The data gathered from the post-intervention interviews, observational notes, and observation forms suggested that, through their experiences and participation in the portfolio process, the six teacher educators engaged in self-reflection and created clear refinements. By drawing on their personal experiences with the implementation of rehearsal as well as watching their own videos, teacher educators shared common struggles, which fostered inquiry and discussion, and often resulted in trying out new instructional delivery methods. In every triad session, the peers provided explicit, actionable feedback to one another.

The results for research question one were consistent with the literature on teaching portfolios. Boileau (1993) described the opportunities that take place when teaching portfolios are allowed. He posited that teaching portfolios allowed teacher educators to take advantage of:

reflective thinking on one's teaching, sharing of what one does with a mentor or colleague as a way to create a dialogue on teaching, and the creation of dialogue on campus about teaching as a way to end the privatization of teaching. (p. 9)

It is clear within this study that teachers engaged in these activities in similar ways with their colleagues.

The structure of the triad sessions and feedback forms forced teacher educators to self-reflect out loud in front of their peers. After examining the observations, it was evident that the teacher educators were motivated to engage in self-reflection. Nicole



provided an example of her intrinsic desire to be self-reflective during her pre-intervention interview when she asserted:

I think another good thing to look at, because I think we need to look at it holistically, is self-analysis- allowing for truly and in a real piece of what we've done well. Like things that I can say I've done well. Things where I need to improve, because that ability to reflect is so critical to quality teaching and growth. For example, in the class I have today, we have two teacher assistants in there that are grad students. I asked them, "What could I have done better today?" They were like, "You were great." I said, "We have to be able to look critically. Thank you for saying that, but there's always room for improvement." We have to be able to turn that lens on ourselves. We need to be able to have that risk free environment to be able to do that. (Post-intervention interview, September 1, 2016)

Nicole's quote illustrated how teacher educators brought personal experiences with concrete teaching, and it should be used as the basis for reflection and growth (Korthagen, 2001).

In the pre-intervention interviews, all six teacher educators expressed a strong desire to learn and grow. It was clear that they were motivated to make improvements in their teaching and further develop their effectiveness, thus it was not surprising when they all created refinements for themselves. Jennifer revealed this when she made the following comment:

The hardest thing for me coming to the university is the professional development stopped. Ten years as a teacher we were constantly changing and reading research together and doing little book studies and then I came to the university and it was like, you come you teach you leave. Now [referring to the professional development sessions and portfolio process] this is a great change because I know that even though I feel like a confident teacher, I have so much to learn. There's so much I need to do better and I think that this is helping me to do that. (Pre-intervention interview, August 30, 2016)

Michelle similarly discussed her desire to grow and develop when she indicated:

Okay. You know, Tech doesn't provide, in the beginning the only kind of feedback you ever got were the evaluations at the end of the semester. Now, within I would say, the first six years at Tech, we didn't have any type of

professional development. I missed that part. I like learning. I like, like change doesn't scare me. I like trying new things and seeing how they work. (Pre-intervention interview, September 1, 2016)

Both Jennifer and Michelle's quotes showed that they were intrinsically motivated to improve their teaching. These results are consistent with Knowles' (1978) tenets of adult learning theory.

### **Teacher Educators' Application of New Learning**

Research question two explored ways in which teacher educators made changes to their instruction as a result of their self-reflections, peer, and student feedback. While the data did not demonstrate teacher educators' application of improved teaching, teacher educators were able to articulate how their instruction changed over the semester. By working with their peers, teacher educators were able to learn the skilled practices of others, as well as receive feedback from others, which is consistent with Tenenberg's (2016) research findings. Because the portfolio process was cyclical, it enabled teacher educators to try new practices, reflect and receive feedback, engage in continuous reflection, and set new goals. Several of the teacher educators had commented that they appreciated this cyclical process, as it contributed to their professional learning and growth. These data are supported by Mezirow (2000) and Brookfield (2009) who studied how adults develop in their instructional effectiveness. They concluded that for adults to grow, they need to participate in continuous cycles of collaboration and reflection (Mezirow, 2000; Brookfield, 2009).

The pedagogy of rehearsal was a novel teacher educator practice for all participants, and they were not confident in their ability to implement this pedagogy. Participants shared common struggles and were able to discuss how their peers

approached these problems of practice. The opportunities to engage in relevant problems together is supported by Knowles' (1978) five tenets of how adults learn. His research showed that adults were oriented towards learning that was relevant to them and could be applied to solve problems.

### **What Teacher Educators Valued About the Process**

The third research question explored ways in which the teacher educators found value in participating in the portfolio process. The results gathered from the post-intervention interviews strongly suggested that the teacher educators valued all aspects of the portfolio process, including watching themselves teach, opportunities to watch and learn from their peers' teaching, implementing rehearsals with their teacher candidates, and receiving formative feedback from their students. The results revealed that one of the most valuable aspects of the portfolio process was having time to collaborate and learn from their peers. This finding is consistent with Lave and Wenger's (1991) situated learning theory, which suggested that learning is socially constructed with the support of colleagues and comes about through discussion and interaction.

The idea that the teacher educators valued the portfolio process overall was not surprising. The pre-intervention interviews, conducted in August and September of 2016, provided insight into the ways in which teacher educators perceived the current evaluation measures. Teacher educators felt strongly that the current measures were unreliable and did not contribute to their instructional growth and development. Five of the teacher educators perceived the evaluation measures as insufficient measures for evaluating their effectiveness. Specifically, they mentioned that the course evaluation scores were not reflective of effective teaching practices but rather, often related to a

course grade or whether or not students liked you. Valerie's quote provided an example of this concern.

You know, I think part of that is, I think they're very emotional sometimes in their responses. Did they agree with how you graded such and such? Are they mad at you? Do they like you? I think that the evaluations as they are might be not so effective. I think the questions don't represent how we teach. There's just a few on there and I just don't think it asks the right questions. (Pre-intervention interview, September 30, 2016)

Amber held similar feelings to Valerie's. When asked if the current measures were sufficient, she asserted,

No, I don't think it's sufficient. Sometimes it depends honestly, if the student likes you or not. You can be a great educator and prepare and do all this material, do everything. Then if the students don't like you, they'll give you a bad evaluation. For example, last year we had kind of a technical issue on Blackboard and the semester started in August, and I did not have access to Blackboard until like the second week in September. One specific course, and because of that, my evaluations were bad. Just because of that course, and I really had no control over it, it had nothing to do with my teaching, it was more of a technical issue on Blackboard. (Pre-intervention interview, August 30, 2016)

Rose also echoed this concern. She stated, "they may just be evaluating you on what grade you gave them on the last assignment" (Pre-intervention interview, September 29, 2016).

Some of the teacher educators expressed strong negative emotions towards the evaluations. Jennifer shared an example of this when she stated,

I used to dread, "Oh my gosh, I have to read this?" The questions that were asked just don't help me as a teacher at all, or help me to think about my own teaching. I just felt like I walked away frustrated and not walking away with an idea of what to do to change it. (Pre-intervention interview, August 30, 2016)

When asked whether the current measures were sufficient, Jennifer asserted,

No. I hated them, and I'm going to be real honest with you Sarah, the last two and a half years, I would say four semesters, I haven't read them. All I would remember is that one negative thing, and the negative thing was usually... like, "You're too hard," "Your attendance policy is inappropriate," or whatever the

word they used. It didn't help me as a teacher at all. It felt like an attack, it didn't help me as a teacher. Does that make sense? I just kind of filed them away. (Pre-intervention interview, August 30, 2016)

Nicole also discussed her frustration with the current measures. When asked whether the current measures were sufficient, she responded, "Not at all. Especially when we're looking at the culture of education. This is again, just my perception, but what I have observed is when students like you, they do better." (Pre-intervention interview, September 1, 2016).

All of the teacher educators recommended additional measures to evaluate their effectiveness. Nicole and Jennifer both felt strongly that the current evaluations were not for instructor use, but rather for administrative purposes. It was clear that they both desired their administrator to look at additional aspects of their teaching, not just course evaluation scores, to determine their effectiveness. Jennifer asserted, "Don't just look at my evaluations, but look too at what I'm doing in the class" (Pre-intervention interview, August 30, 2016). Nicole recalled a time when she met with her administrator about her evaluations. She prepared for the meeting by gathering artifacts of student learning. She stated,

I know that when I talked to Dr. Dell about that at my annual review, I said, "Look at these things." He was like, "I don't want to look at those." His thing was this is what we use, the end of course evaluations, and he goes, "And that's all we're going to use." I think that there needs to, I would like, somehow, if we could include a piece where the teacher candidates talk about what growth they've experienced in the class. From where I was before, to now, because sometimes they don't know, part of what I do on my very last day is I talk about, let's talk about where we were at the beginning. We talk about some of the modules and the things that we learned. (Pre-intervention interview, September 1, 2016)

Several of the teacher educators recommended observations of teaching as an additional measure. Jennifer commented, "I think that is, as scary as it is for all of us and

intimidating, we're vulnerable. I think that's something that's helpful. Even getting in groups and watching and getting feedback from others (Pre-intervention interview, August 30, 2016). Nicole agreed and stated, "I think if we record and watch each other, I think that's a good measure as well" (Pre-intervention interview, September 1, 2016). Michelle also recommended an observation measure when she said, "I think we need someone to come in and observe us and give us feedback" (Pre-intervention interview, September 1, 2016).

Nicole also recommended surveying students about their perception of their own growth in the course. She stated that these surveys should include, "things that they learned, allowing them to reflect back" (Pre-intervention interview, September 1, 2016). Amber echoed this and suggested that the students should rate teachers in similar ways as the teacher rates them. She stated, "just like we rate them using SIOP and TAP. I'd ask them to rate me to see how I'm doing. To give me feedback" (Pre-intervention interview, August 30, 2016). Michelle also felt that formative student feedback could really assist teacher educators in their teaching. She stated, "It would be great if once a month we could get feedback from our students. Even if there are things in the class they feel are more beneficial than others, we want to know that so we can focus on the right areas" (Pre-intervention interview, September 1, 2016). The portfolio process included many of the teacher educators' recommendations for changing the evaluation measures. Further, because the teacher educators were able to create the questions in the student feedback survey, they had ownership in how their students responded, and thus, they took them seriously.

It was evident that teacher educators valued the opportunity to collaborate with their peers about their teaching. The context of the peer triad sessions was considered essential to the overall feeling of trust and transparency within the sessions, which allowed for teacher educators to be open to giving and receiving feedback. Four of the six participants explained the importance of the grouping structures, stressing how critical it was that they were placed with peers whom they respect.

### **Lessons Learned Through Implementation**

Several lessons were learned as this study was implemented. Data revealed the importance of the peer triad dynamic. The grouping structures were vital in creating a safe, trusting atmosphere. An example of this is when Valerie said,

Doing so with site coordinators who know the same teacher candidates, who go through the same processes, I was comfortable and so whatever they said, good, bad or ugly, it didn't hurt my feelings., I felt like I could grow from it and I felt like they could be honest and they were honest. (Post-intervention interview, December 13, 2016)

Collaboration with peers was identified as the most valuable component of the portfolio process by all the teacher educators. Teacher educators felt safe to be vulnerable even when they weren't confident in their teaching. Three of the teacher educators compared this process to other, more evaluative, peer review processes that they had previously engaged in. Valerie asserted,

I really liked having other site coordinators who do the same thing that I do because I value their opinion but when we had to do peer review as a program, I had to do that with another couple of instructors and there was a disconnect to having that feedback and especially being new to tech and being at the bottom of the pole. It was very intimidating and I think they were probably offended that I had anything to say about their teaching. (Post-intervention interview, December 13, 2016)

It was very important to have non-evaluative measures that were implemented over time. The videos allowed teacher educators an opportunity to view one another's teaching in a low-stakes environment. As noted in the literature, traditionally, teaching has been private profession, which occurred behind closed doors. Consistent with this perception, Ball and Forzani (2011) stated, "The widely reinforced belief that teaching is a creative art, mostly learned on one's own, impedes the possibility of substantial growth in knowledge and improvement in practice" (p. 21). Michelle showed us an example of the importance of this when she said,

It was intimidating knowing I'm bringing a video in that wasn't my strongest. Then I also knew I could redo my video, but I really wanted their feedback on how to help my weaker teacher candidates. It was just kind of intimidating knowing I'm bringing in something that's not strong, but I really need their feedback. (Post-intervention interview, December 16, 2016)

This process was able to mitigate the isolation that many teacher educators face while helping them to develop and improve their practices.

Another lesson learned was the importance of having clear expectations and goals for the teacher educators. The design of the process played a large role in the success of the intervention. Having three professional developments sessions spread out over the semester was critical to the implementation of the process. The first professional development session allowed the teacher educators to develop a strong understanding of the rehearsal pedagogy, and helped them to make connections to how it supports teacher candidate development. Following the first professional development, teacher educators were given a clear task to film themselves enacting the pedagogy with their students. Jennifer noted, "This was some real accountability that you had to watch yourself in front



of your friends and then tell your friends what you think you did well and what you need to work on” (Post-interview, December 12, 2016).

The professional development sessions involved a clear model and protocol for engaging in the triad session. The protocol allowed for flexibility, but also was structured to support the teacher educators in staying attentive to the task. Following the model, triad sessions were dismissed to meet in their groups. Each triad group had their own room and facilitator. Having this time built into the professional development day was essential because it didn’t feel like it was extra work added to their plates. Further, after the triad sessions, the facilitators were able to quickly share observation trends such as the common challenges they faced with rehearsal. Data showed that teacher educators struggled with how to engage all of their teacher candidates as well as how to conduct the rehearsal given the course time constraints. These trends were discussed with the whole group during the afternoon professional development session. It also provided an opportunity to help the teacher educators continue to refine their practices with rehearsal.

### **Potential Threats to Validity**

There were two factors that could have potentially affected the validity of this study. The threats included the Hawthorne effect and the novelty effect. The Hawthorne effect was pertinent because participants received attention from other observers, which may have influenced participants’ performance. To maximize validity, teacher educators were asked to be themselves and teach as they normally would with or without an observer. A second threat was the novelty effect. This could have been a significant threat because although teacher educators had been conducting peer observations, they had not observed lessons together and debriefed immediately following the observation. Further,

past observational efforts were done in isolation on a teacher educator's own time and therefore, there was little accountability to complete the video, observation, and feedback process. This structured collaborative portfolio process was new for them. Jennifer described it when she stated:

We had to watch ourselves before, but I could fake it or I could watch a little bit and know enough. This was some real accountability that you had to watch yourself in front of your friends and then tell your friends what you think you did well and what you need to work on. (Post interview, December 12, 2016)

Another novel component of the process was the pedagogy of rehearsal. For most of the participants, this was the first time they learned about this pedagogy. If, for example, novelty was the reason for the positive results showing that participants valued the rehearsal pedagogy as well as the process overall, this would have implications for continuing the implementation of the portfolio process in the future. It would be important to consistently monitor participant engagement with the process. The initial training session included discussions of this issue in order to help the teacher educators develop awareness around it, including how it could affect the validity of the study. To ensure novelty threats are reduced in the future, it would be important to continue to revisit the issue with the teacher educators.

Several steps were taken to reduce these threats. Multiple sources of data were collected and carefully compared during analysis in order to achieve valid and reliable results. Understanding my own biases and how they could have affected a study's results was also critical to the validity of the study. To decrease bias, I disclosed my role to my participants and had a colleague code several measures to ensure coding reliability.

## **Limitations**

There were several limitations to this study. The most significant limitation is the small sample size. The sample size of six participants was very different than a large group of forty or more teacher educators in a teacher preparation program, and may limit generalizability to another setting. Although this was a limitation, it was not the intent of the study as this analysis allowed the researcher to delve deeper when analyzing the qualitative data. The researcher was able to minimize this limitation through complementarity of the data.

A second limitation was the space, time, and resources provided for teacher educators to engage in professional learning together. This is not part of the current structure and therefore, it was important that the peer triad sessions were built into the scheduled time for professional learning, allowing all triads to meet at the same time with facilitators. Further, it enabled the facilitators to observe the triad sessions, identify trends that needed to be addressed, and make adjustments as necessary for the afternoon professional development session. Other than filming themselves teaching and administering their student feedback surveys, there were no extra assignments to be completed outside of the professional development sessions.

## **Implications for Practice**

Universities need to prioritize the role of the teacher educator as this individual plays a significant role in preparing teacher candidates to enter the teaching profession. Time and effort must be given to research the best methods for helping teacher educators in their development and examination of effective teaching practices. Studies have shown that purposeful teacher education, grounded in specific and research-based teacher

educator pedagogies, practices, and principles, can positively influence novice teacher practice, efficacy, and effectiveness (Sharma & Sokal, 2013; Korthagen, 2010; Brouwer & Korthagen, 2005; Day, 1999). Through the implementation of the rehearsal pedagogy, teacher educators strengthened their own modeling of practices, were able to understand the instructional struggles of their teacher candidates, and observed the influence it had on teacher candidate growth and development.

It is time to challenge traditional structures and evaluation measures. Results from this study and the literature on teacher educator evaluation measures reinforce the need to implement additional measures to evaluate teaching effectiveness. All the teacher educators in this study articulated their desire to learn and grow. The current measures and structures have not afforded teacher educators the opportunity to get real time feedback on their teaching. Darling-Hammond et al. (2014) described the importance of professional capacity and accountability systems, asserting, “individuals and organizations should be responsible for building their own capacity for professional practice; they should be accountable for evaluating practice and student progress, and engaging in continual improvement based on the results” (p. 14). By institutionalizing a portfolio process and professional development structure, teacher educators can gather evidence from multiple sources to demonstrate their effectiveness. Further, by examining the multiple sources, the portfolio can reveal a teacher educator’s commitment to professional growth and improvement.

### **Suggestions for Future Research**

Future research is warranted based upon lessons learned from this study. Stringer (2007) suggests that action research is strengthened when it is replicated in various

contexts. Studies that explore similar models of teacher educator portfolios in different settings are recommended.

Suggestions for future research also include making modifications to the current portfolio process to include evidence of teacher candidate learning. While the structure nurtured a safe and transparent environment, one missing element was the evidence of teacher candidate learning. When teacher educators engage in reflection, peer and student feedback is important, but evidence of student learning is essential. A logical next step in this process is to bring in evidence of student learning in order to foster reflection with a specific emphasis on the relationship between teaching practices and learning outcomes. Patton (1990) stated, “a good teacher is one who examines their instructional practices, develops their teacher competencies, and evaluates [the] teaching process in accord with its influence on learners” (p. 11-12). As teacher educators meet in triad groups, teacher candidates’ artifacts could be used to examine how candidates are progressing in the course. This would allow teacher educators to investigate how teacher practices are influencing teacher candidate learning.

Evidence from this study also suggests that further work be done on examining the pedagogy of rehearsal and its impact on a teacher candidate’s development. Rehearsal serves as a scaffolding step to allow pre-service teachers with opportunities to safely practice a teaching skill through an instructional simulation. It serves as a “practice field” where novices can experiment with teaching, confront problematic instructional situations, and receive feedback from a teacher educator in a safe, risk-free environment. While a teacher candidate rehearses, the other teacher candidates play the role of students and have opportunities to provide feedback to the rehearsing student. But, is it really

known that it supports teacher candidates' development and their ability to enact teaching practices? How does it influence non-rehearsing candidates? A study such as this would allow the teacher educators to examine how teacher educator pedagogies are influencing teacher candidate learning.

## **Conclusion**

Nearly every month, a new report is released in the United States critiquing the quality of university-based teacher preparation programs (Keller, 2013). Despite being the largest producer of teachers in the U.S., many policymakers and mainstream media have declared it to be a failure. University-based teacher preparation programs are faced with tremendous pressure to ensure that their graduates are classroom-ready on day one.

As changes have been made to increase the clinical quality of teacher candidates' preparation, little has been done to support teacher educators' capacity to teach and prepare candidates. Current evaluation measures have not provided teacher educators with valid and reliable feedback and thus, they have been ineffective in affecting their growth and development. Ultimately, this study scratched the surface in exploring the value of the portfolio process.

The immense pressures, the traditional silos and isolation, and the lack of feedback and professional growth opportunities beg for a more comprehensive process that involves the implementation of formative, low-stakes measures. The literature and the results of this study indicate that there should be continuous opportunities for teacher educators to engage in structured collaboration sessions with peers, multiple measures used to examine practices, and opportunities to utilize feedback to make improvements in

teaching. The process needs to be authentic, non-evaluative and of immediate value, providing opportunities for teacher educators to instantly apply learning.

## References

- Abdul-Alim, J. (2014, March 3). Experts: New teachers can't hide behind steep learning curve. *Diverse: Issues in Higher Education*. Retrieved from <http://diverseeducation.com/article/61018/>
- Aksit, F. (2016). Implementing portfolios in teacher training: Why we use them and why we should use them. *Eurasian Journal of Educational Research*, 62, 97-114.
- Aleamoni, L. M. (1999). Student rating myths versus research facts from 1924 to 1998. *Journal of Personnel Evaluation in Education*, 13(2), 153-166. <http://dx.doi.org/10.1023/A:1008168421283>
- Alexander, F. K. (2001). The silent crisis: The relative fiscal capacity of public universities to compete for faculty. *The Review of Higher Education*, 24(2), 113-129. <http://dx.doi.org/10.1353/rhe.2000.0027>
- Arnold, J. (2009). Do examinations influence student evaluations? *International Journal of Educational Research*, 48, 215-224. <http://dx.doi.org/10.1016/j.ijer.2009.10.001>
- Ball, D. L., & Forzani, F. M. (2011). Building a common core for learning to teach: And connecting professional learning to practice. *American Educator*, 35(2), 17-21.
- Berk, R. A. (2005). Survey of 12 strategies to measure teaching effectiveness. *International Journal of Teaching and Learning in Higher Education*, 17(1), 48-62
- Berk, R. A., Naumann, P. L., & Appling, S. E. (2004). Beyond student ratings: Peer observation of classroom and clinical teaching. *International Journal of Nursing Education Scholarship*, 1(1), 1- 26. <http://dx.doi.org/10.2202/1548-923x.1024>
- Blackmore, J. A. (2005). A critical evaluation of peer review via teaching observation within higher education. *International Journal of Educational Management*, 19(3), 218-232. <http://dx.doi.org/10.1108/09513540510591002>
- Boileau, D. M. (1993). "Scholarship reconsidered": A challenge to use teaching portfolios to document the scholarship of teaching. Retrieved from <http://files.eric.ed.gov/fulltext/ED361752.pdf>
- Brookfield, S. D. (2009). *The skillful teacher: On technique, trust, and responsiveness in the classroom*. New York, NY: John Wiley & Sons.
- Brouwer, N., & Korthagen, F. (2005). Can teacher education make a difference? *American Educational Research Journal*, 42(1), 153-224.



- Calma, A., Webster, B., Petry, S., & Pesina, J. (2014). Improving the quality of student experience in large lectures using quick polls. *Australian Journal of Adult Learning, 54*(1), 114-136. Retrieved from <http://eric.ed.gov/?id=EJ1031012>
- Carlson, D. L. (2011). Making teacher education better: The impact of polling data on a methods of teaching English course. *Teacher Education and Practice, 24*(2), 149-169.
- Centra, J. A. (1972). *The student instructional report: Its development and uses*. Washington, D.C.: Educational Testing Service.
- Clark, B. R. (1998). *Creating entrepreneurial universities: Organizational pathways of transformation*. New York, NY: Pergamon.
- Cochran-Smith, M., & Zeichner, K. (2005). *Studying teacher education: The report of the AERA panel on research and teacher education*. Mahwah, NJ: Lawrence Erlbaum.
- Connor, K. R., & Killmer, N. (2001). Cohorts, collaboration, and community: Does contextual teacher education really work? *Action in Teacher Education, 23*(3), 46-53.
- Corbin, J., & Strauss, A. (2008). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (3rd ed.). Thousand Oaks, CA: Sage.
- Council for the Accreditation of Educator Preparation (CAEP). (2015). Standard 1: Content and pedagogical knowledge. Retrieved from <http://caepnet.org/standards/standard-1>
- Daley, G., & Kim, L. (2010, August). *A teacher evaluation system that works*. Santa Monica, CA: National Institute for Excellence in Teaching. Retrieved from <http://files.eric.ed.gov/fulltext/ED533380.pdf>
- Danielson, C. (1996). *Enhancing professional practice: A framework for teaching*. Alexandria, VA. Association for Supervision and Curriculum Development.
- Darling-Hammond, L., Hammerness, K., Grossman, P., Rust, F., & Shulman, L. (2005). The design of teacher education programs. In L. Darling-Hammond, & J. Bransford, *Preparing teachers for a changing world: What teachers should learn and be able to do* (pp. 390-441). San Francisco, CA: John Wiley.
- Darling-Hammond, L., Wilhoit, G., & Pittenger, L. (2014). *Accountability for college and career readiness: Developing a new paradigm*. Stanford, CA: Stanford Center for Opportunity Policy in Education.
- Day, C. (1999). *Developing teachers: The challenges of lifelong learning*. Philadelphia, PA: Falmer Press.

- Dinkelman, T., Margolis, J., & Sikkenga, K. (2006). From teacher to teacher educator: Reframing knowledge in practice. *Studying Teacher Education*, 2(2), 119-136.
- Duncan, A. (2009, October). *Teacher preparation: Reforming the uncertain profession*. Keynote speech presented at Teachers College, Columbia University, New York, NY.
- Emery, C. R., Kramer, T. R., & Tian, R. G. (2003). Return to academic standards: A critique of student evaluations of teaching effectiveness. *Quality Assurance in Education*, 11(1), 37-46. <http://dx.doi.org/10.1108/09684880310462074>
- Flick, U. (Ed.). (2014). *The SAGE handbook of qualitative data analysis*. Thousand Oaks, CA: Sage.
- Friend, M., & Cook, L. (1992). *Interactions: Collaboration skills for school professionals*. White Plains, NY: Longman.
- Gigliotti, R. J., & Buchtel, F. S. (1990). Attributional bias and course evaluations. *Journal of Educational Psychology*, 82(2), 341-351.
- Giroux, H. (2005). *The terror of neoliberalism: Cultural politics and the promise of democracy*. Boulder, CO: Paradigm Publishers.
- Greene, J., & McClintock, C. (1985). Triangulation in evaluation: Design and analysis issues. *Evaluation Review*, 9(5), 523-545. <http://dx.doi.org/10.1177/0193841X8500900501>
- Guilfoyle, K., Hamilton, M. L., Pinnegar, S., & Placier, P. (1995). Becoming teachers of teachers: The paths of four beginners. In F. Korthagen & T. Russell (Eds.), *Teachers who teach teachers: Reflections of teacher education* (pp. 35-55). London: Falmer Press.
- Hampton, S.E. (2000, February 16-20). *A review of literature on formative evaluation of teacher through mid-term student feedback and how the Reiser and Dick instructional planning model can enhance this feedback*. Paper presented at the Association for Educational Communications and Technology, Long Beach, CA.
- Harvey, D. (2005). *A brief history of neoliberalism*. New York, NY: Oxford University Press.
- Hendry, G. D., & Oliver, G. R. (2012). Seeing Is believing: The benefits of peer observation. *Journal of University Teaching and Learning Practice*, 9(1), 7.
- Herr, K., & Anderson, G. L. (2014). *The action research dissertation: A guide for students and faculty*. Thousand Oaks, CA: Sage.
- Hill, D. (2003). Global neo-liberalism, the deformation of education and resistance. *The Journal of Critical Education Policy Studies*, 1(1), 1-28.

- Hounsell, D. (2003). The evaluation of teaching. In H. Fry, S. Ketteridge, & S. Marshall (Eds.), *A handbook for teaching and learning in higher education: Enhancing academic practice* (pp. 200-212). Sterling, VA: Kogan Page.
- Keller, B. (2013, October 20). An industry of mediocrity. *The New York Times*. Retrieved from [http://www.nytimes.com/2013/10/21/opinion/keller-an-industry-of-mediocrity.html?pagewanted=all&\\_r=0](http://www.nytimes.com/2013/10/21/opinion/keller-an-industry-of-mediocrity.html?pagewanted=all&_r=0)
- Knowles, M. S. (1978). Andragogy: Adult learning theory in perspective. *Community College Review*, 5(9), 9–20. <http://dx.doi.org/10.1177/009155217800500302>
- Korthagen, F. (2001). Teacher education: A problematic enterprise. In F. A. J. Korthagen, & J. Kessels (Eds.), *Linking practice and theory: The pedagogy of realistic teacher education* (pp. 1-19). Mahway, NJ: Erlbaum.
- Korthagen, F., Loughran, J., & Russell, T. (2006). Developing fundamental principles for teacher education programs and practices. *Teaching and Teacher Education*, 22(8), 1020-1041.
- Korthagen, F., & Wubbles, T (1991). *Characteristics of reflective practitioners towards an operationalization of the concept of reflection*. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.
- Lather, P. (1986). Issues of validity in openly ideological research: Between a rock and a soft place. *Interchange*, 17(4), 63-84.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. New York, NY: Cambridge University Press.
- Loughran, J. J. (2006). *Developing a pedagogy of teacher education: Understanding teaching and learning about teaching*. New York, NY: Taylor & Francis.
- Loughran, J. J., & Berry, A. (2005). Modelling by teacher educators. *Teaching and teacher education*, 21(2), 193-203.
- McDonald, M., Kazemi, E., & Kavanagh, S. S. (2013). Core practices and pedagogies of teacher education: A call for a common language and collective activity. *Journal of Teacher Education*, 64(5), 378-386. <http://dx.doi.org/10.1177/0022487113493807>
- Mezirow, J. (2000). *Learning as transformation: Critical perspectives on a theory in progress*. San Francisco, CA: Jossey-Bass.
- Miles, M. B., Huberman, A. M., & Saldana, J. (2013). *Qualitative data analysis*. Thousand Oaks, CA: Sage.

- Murray, J., & Male, T. (2005). Becoming a teacher educator: Evidence from the field. *Teaching and Teacher Education, 21*(2), 125-142.  
<http://dx.doi.org/10.1016/j.tate.2004.12.006>
- Obama, B. (2009). President Obama's remarks to the Hispanic Chamber of Commerce. *The New York Times*.
- Papay, J., Taylor, E. S., Tyler, J., & Laski, M. (2015). *Learning job skills from colleagues at work: Evidence from a field experiment using teacher performance data*. NBER Working Paper No. 21986. Cambridge, MA: National Bureau of Economic Research.
- Patton, M. Q. (1990). *Qualitative evaluation and research methods*. Thousand Oaks, CA: Sage.
- Putnam, H., Greenberg, J., & Walsh, K. (2014, November). *Easy A's and what's behind them*. Washington, D.C.: National Council on Teacher Quality. Retrieved from <http://www.nctq.org/dmsStage/EasyAs>
- Public Agenda. (2000). *New teachers eager but unprepared for classroom realities* [Press release]. Retrieved from <https://www.publicagenda.org/press-releases/new-teachers-eager-unprepared-classroom-realities>
- Seldin, P. (1999). *Changing practices in evaluating teaching: A practical guide to improved faculty performance and promotion/tenure decisions* (Vol. 10). San Francisco, CA: Jossey-Bass.
- Sharma, U., & Sokal, L. (2015). The impact of a teacher education course on pre- service teachers' beliefs about inclusion: An international comparison. *Journal of Research in Special Educational Needs, 15*(4), 276-284.
- Simpson, P. M., & Siguaw, J. A. (2000). Student evaluations of teaching: An exploratory study of the faculty response. *Journal of Marketing Education, 22*(3), 199-213.
- Slaughter, S., & Rhoades, G. (2004). *Academic capitalism and the new economy: Markets, state and higher education*. Baltimore, MD: Johns Hopkins University Press.
- Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (2nd ed.). Thousand Oaks, CA: Sage.
- Stringer, E. (2007). *Action research* (3rd ed.). Thousand Oaks, CA: Sage Publications.
- Tabachnick, B. G., Keith-Spiegel, P., & Pope, K. S. (1991). Ethics of teaching: Beliefs and behaviors of psychologists as educators. *American Psychologist, 46*(5), 506-515.

- Tenenberg, J. (2016). Learning through observing peers in practice. *Studies in Higher Education, 41*(4), 756-773. <http://dx.doi.org/10.1080/03075079.2014.950954>
- Tinto, V. (1997). Classrooms as communities: Exploring the educational character of student persistence. *The Journal of Higher Education, 68*(6), 599-623.
- U.S. Department of Education. (1991, Winter). Assessing teaching performance. *The Department Chair: A Newsletter for Academic Administrators, 2*(3), 2.
- U.S. Department of Education. (2014, November 25). U.S. Department of Education proposes plan to strengthen teacher preparation [Press release]. Retrieved from <http://www.ed.gov/news/press-releases/us-department-education-proposes-plan-strengthen-teacher-preparation>
- Wenger, E., McDermott, R. A., & Snyder, W. (2002). *Cultivating communities of practice: A guide to managing knowledge*. Boston, MA: Harvard Business Press.
- Wideen, M., Mayer-Smith, J., & Moon, B. (1998). A critical analysis of the research on learning to teach: Making the case for an ecological perspective on inquiry. *Review of Educational Research, 68*(2), 130-178.
- Wolf, K., & Dietz, M. (1998). Teaching portfolios: Purposes and possibilities. *Teacher Education Quarterly, 9*-22.

APPENDIX A

EMAIL TEXAS TECH TEACHER EDUCATORS

Dear Texas Tech Teacher Educators,

My name is Sarah Beal and I am an in the Doctoral Program in Mary Lou Fulton Teachers College at Arizona State University. I am working in the EdD program to conduct an action research study to examine measures of teacher educator effectiveness. I also recently joined the Tech Teach team as the Co-Director of US PREP.

I am inviting your participation in a study that will be conducted in the fall. As part of this study, participants will film themselves teaching for twenty to thirty minutes, two times over one semester. Following each video-taped session, teacher educators will administer a student feedback survey. Teacher educators will work in groups to watch one another's videos and provide feedback. The findings from this study will be used to understand how teacher educator portfolios consisting of (1) peer feedback, (2) student feedback, and (3) self-reflections influence the practices of teacher educators.

If you are willing to participate in this study, please reply to this email and I will provide you with additional details as well as address any questions you may have.

Thank you,

Sarah Beal

APPENDIX B

TEACHER EDUCATOR PEER OBSERVATION AND SELF REFLECTION FORM



## Collaborative Feedback

**Step 1:** Instructor provides (\*brief) introduction/overview of what is to be seen in video (2-3 minutes)

**Step 2:** All prepare to record notes re: **strengths** and **possible opportunities for refinement, questions**. Watch 10-15 minutes of video *while recording notes in Table 1*.

**Step 3:** Instructor in video leads discussion re: **self-assessed strengths and possible refinement opportunities**. Colleagues interject and add additional insight. (10 minutes)

**Step 4:** Triad collectively identifies next-steps for effective use of rehearsals during instruction. Record notes in Table 2. (5 minutes)

**Step 5:** Repeat process for remaining triad-members

### Collaborative Feedback Activity - Recommendations:

- Use a phone timer to keep close-track of time for each step above.
- When sharing feedback, use objective wording, (*Vs. for ex. "I LIKE how you...."*) and 'seek first to understand' (i.e. How did you select the TCs who participated? What do you think the impact on the observers/non-participants was?)
- When viewing videos and providing feedback, consider foremost the impact on (ALL) TCs' learning and their subsequent possible ability to replicate practices with K-12 students.

Triad Member ID : \_\_\_\_\_

Table 1. Reinforcements and Refinements

Reinforcements	Possible Opportunities for Refinement:

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Table 2. Next Steps

Next Step(s):

Triad Member 2 ID: \_\_\_\_\_

Table 1. Reinforcements and Refinements

Reinforcements	Possible Opportunities for Refinement:

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Table 2. Next Steps

Next Step(s):

Triad Member 3 ID: \_\_\_\_\_

Table 1. Reinforcements and Refinements

Reinforcements	Possible Opportunities for Refinement:

Table 2. Next Steps

Next Step(s):

### Survey analysis, trend identifications, and next steps

- Step 1:** Review your teacher candidate survey results  
**Step 2:** Highlight trending **strengths**  
**Step 3:** Highlight possible **refinements**  
**Step 4:** How might you use the results to improve your practice?

Areas of Strength:	Possible Refinement Areas:

APPENDIX C

TEACHER EDUCATOR INTERVIEW QUESTIONS PRE-INTERVENTION

1. Tell me about yourself. How long have you been a teacher educator? How long have you been teaching at Texas Tech? What do you teach?
2. Tell me about how you perceive your effectiveness as a teacher educator. What evidence did you use to gauge your effectiveness?
3. Do you feel the current measures of effectiveness (i.e. student course evaluations) are sufficient measures? If no, what recommendations do you have?
4. Why did you volunteer to be part of this study? What do you hope to learn?

APPENDIX D

TEACHER EDUCATOR INTERVIEW QUESTIONS POST-INTERVENTION

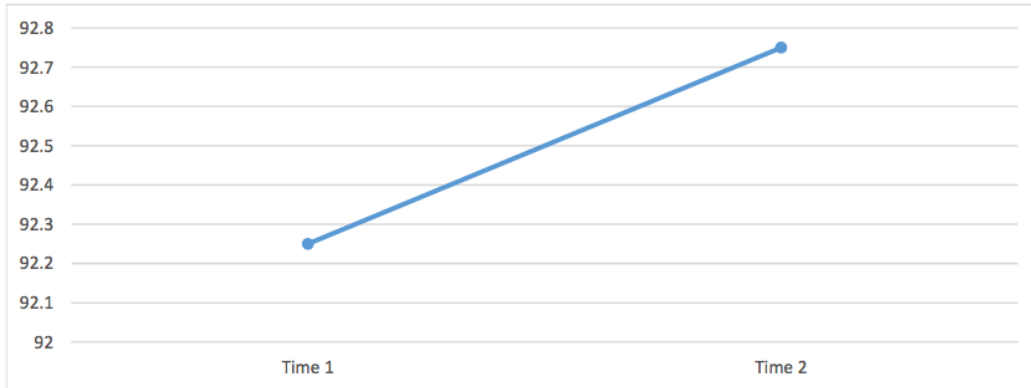


1. Tell me about how you perceive your effectiveness as a teacher educator now, after the portfolio process. What evidence did you use to gauge your effectiveness?
2. Thinking back over this semester, describe how you engaged in the teaching portfolio process. Were all intervention components (peer observations, self-reflections, and student feedback surveys) completed?
3. Describe what you learned about your teaching through the peer, self, and student feedback.
4. How did the portfolio process influence your teaching practices? What did you change about your teaching?
5. What did you like about this process? What did you dislike about this process?
6. Do you feel the current evaluation measures for teacher educators are sufficient in measuring teacher educator effectiveness? If not, what additional measures do you recommend?

APPENDIX E  
TEACHER CANDIDATE SURVEY RESULTS

**PRE-POST DIFFERENCES IN AVERAGE SCORES**

Instructor	N	Time 1		N	Time 2		t	p
		MEAN	SD		MEAN	SD		
	20	92.25	12.32	20	92.75	13.79	0.11	0.913



**PRE-POST DIFFERENCES IN AVERAGE SCORES**

Instructor	N	Time 1		N	Time 2		t	p
		MEAN	SD		MEAN	SD		
	23	86.91	18.93	17	86.71	19.66	0.57	0.578



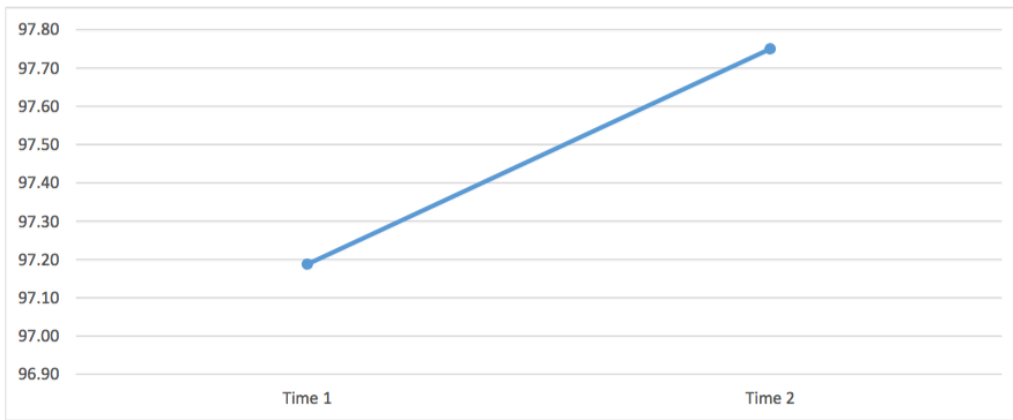
**PRE-POST DIFFERENCES IN AVERAGE SCORES**

Instructor	Time 1			Time 2			<i>t</i>	<i>p</i>
	N	MEAN	SD	N	MEAN	SD		
	5	84.20	21.24	10	73.00	31.85	-1.73	0.119



**PRE-POST DIFFERENCES IN AVERAGE SCORES**

Instructor	Time 1			Time 2			<i>t</i>	<i>p</i>
	N	MEAN	SD	N	MEAN	SD		
	16	97.19	3.19	16	97.75	4.23	0.40	0.692



**PRE-POST DIFFERENCES IN AVERAGE SCORES**

Instructor	Time 1			Time 2			<i>t</i>	<i>p</i>
	N	MEAN	SD	N	MEAN	SD		
	26	96.04	9.46	13	97.85	2.64	1.34	0.191



**PRE-POST DIFFERENCES IN AVERAGE SCORES**

Instructor	Time 1			Time 2			<i>t</i>	<i>p</i>
	N	MEAN	SD	N	MEAN	SD		
	51	95.25	9.63	48	96.13	9.58	0.57	0.572



APPENDIX F

PRE-INTERVENTION INTERVIEW LIST OF CODES AND THEMES

Additional measures should include evidence of student growth	6	Recommendations to improve the measures of effectiveness
Additional measures should include observation	4	
Additional measures should include self analysis and reflection	1	
Additional measures should include student feedback	9	
Course evaluations are not helpful	2	Course Evaluations are not sufficient measures
Course evaluations don't ask the right questions	2	
Current evaluations are biased	5	
Current measures are for administrators	3	
Student feedback on the evaluations is not always reliable	1	
Teacher educators have a desire to grow and learn	9	Teacher educators have a desire to grow and learn
Effective teacher educators are models of good teaching	3	Characteristics of effective teacher educators
Effective teacher educators have experience teaching K-12	4	
Effective teacher educators use data to inform course instruction	1	

APPENDIX G

SELF-REFLECTION/PEER FEEDBACK FORMS, OBSERVATION NOTES, AND

POST-INTERVENTION INTERVIEWS:

LIST OF CODES AND FREQUENCIES



Codes	Total Frequency
I liked the peer feedback forms	2
Facilitator plays an important role	9
Feedback forms included a reinforcement and refinement	16
I grew as an instructor	11
I learned from watching my peers teach	8
I like getting feedback	4
Instruction changed over the semester	2
Listen and applied student feedback	2
Multiple measures over a period of time was valuable	8
No professional development in higher education	3
Peer feedback was focused with examples	42
Peer triad make-up is important	16
Peers shared challenges	5
Rehearsal implementation changed from time 1 to time 2	1
Rehearsal was the content of the peer discussion	8
Rehearsals forced me to be purposeful in my modeling	4
Rehearsals showed me who was struggling	2
Rehearsals support student learning	8
Rehearsals were challenging for students	5
Rehearsals were uncomfortable or challenging	2
Role of anchor faculty	11

Safe environment/Culture/Honesty/ Vulnerability is critical	6
Student feedback on the evaluations is not always reliable	1
Student feedback survey results were referenced	28
TAP Rubric Reference	33
Teacher educators created clear refinements	13
Teacher educators have a desire to grow and learn	4
Teacher educators liked replicating the process that students go through	3
Teacher educators seek support for improvement	2
Teacher educators self reflect	18
The professional development was helpful to engage in the process	5
This experience was different than past experiences	5
This process made you accountable	3
Watching yourself on video	3

APPENDIX H

LIST OF CODES, FREQUENCIES, AND GROUPS

Codes	Frequency	Groups
I liked the peer feedback forms	2	Materials provided at the professional development supported the portfolio process
Facilitator plays an important role	9	Expertise and insights of the specific people in their peer triad groups
I like getting feedback from my peers	4	
Peer triad make-up is important	16	
Role of anchor faculty	11	
Safe environment/Culture/Honesty/Vulnerability is critical	6	
Feedback forms included a reinforcement and refinement	16	Teacher educators provided explicit, actionable feedback to one another
Peer feedback was focused with examples	42	
I grew as an instructor	11	Teacher educators grew in their instructional effectiveness
Instruction changed over the semester	2	
Multiple measures over a period of time was valuable to support growth	8	
I learned from watching my peers teach	8	Teacher educators learned from watching their peers' teaching through the videos
Listen and applied student feedback	2	

Rehearsal implementation changed from time 1 to time 2	1	Teacher educators made adjustments in their teaching
Student feedback survey results were used to make adjustments in teaching	28	
In past years, there hasn't been professional development in higher education	3	The professional development was helpful
Teacher educators seek support for improvement	2	
The professional development was helpful to engage in the process	5	
This experience was different than past experiences	5	The professional development provided accountability action steps
This process made you accountable	3	
Peers shared challenges	5	Teacher educators engaged in problems of practice and shared common struggles
Peers shared ideas for implementing rehearsals	8	Generated new ideas together
Rehearsals forced me to be purposeful in my modeling	4	Rehearsals forced the teacher educators to be purposeful in their modeling
Rehearsals showed me who was struggling	2	Rehearsals enabled teacher educators to understand the instructional struggles of their teacher candidates
Rehearsals were challenging for students	5	
Rehearsals support student learning	8	Rehearsals supported teacher candidate learning

Rehearsals were uncomfortable or challenging	2	Teacher educators engaged in problems of practice and shared common struggles
Teacher educators made reference to the TAP Rubric when talking about their growth and feedback to one another	33	Teacher educators referenced the TAP rubric
Teacher educators created clear refinements	13	Teacher educators created clear refinements
Teacher educators have a desire to grow and learn	4	Teacher educators were self-reflective and have a desire to grow
Teacher educators liked replicating the process that students go through	3	
Teacher educators self reflect	18	

APPENDIX I  
GROUPS AND THEMES

Groups	Themes
Teacher educators were self-reflective and have a desire to grow	Teacher educators engaged in self-reflection and created clear refinements for improvement
Teacher educators created clear refinements	
Teacher educators engaged in problems of practice and shared common struggles	Teacher educators engaged in problems of practice, shared common struggles, and often generated new ideas together
Generated new ideas together	
Teacher educators referenced the TAP rubric	Teacher educators provided explicit, actionable feedback to one another, often referencing the TAP rubric
Teacher educators provided explicit, actionable feedback to one another	
Teacher educators made adjustments in their teaching	Teachers educators made adjustments in their teaching
Teacher educators grew in their instructional effectiveness	Teacher educators felt as though they grew in their instructional effectiveness over the semester
Teacher educators learned from watching their peers' teaching through the videos	Teacher educators learned from watching their peers' teaching through the videos
Expertise and insights of the specific people in their peer triad groups	Teacher educators valued the expertise and insights of the specific people in their peer triad groups
The professional development provided models for how to engage in the rehearsal and peer feedback process	The professional development provided models for how to engage in the rehearsal and peer feedback process
Materials provided at the professional development supported the portfolio process	
The professional development provided accountability action steps	
The professional development was helpful	
Rehearsals enabled teacher educators to understand the instructional struggles of their teacher candidates	The rehearsals enabled teacher educators to understand the instructional struggles of their teacher candidates and felt that rehearsals supported teacher candidate learning



Rehearsals supported teacher candidate learning	
Rehearsals forced the teacher educators to be purposeful in their modeling	The rehearsals forced the teacher educators to be purposeful in their modeling
Recommendations to improve the measures of effectiveness	Pre-Intervention Interview Themes
Course Evaluations	
Characteristics of effective teacher educators	

APPENDIX J  
INSTITUTIONAL REVIEW BOARD APPROVAL



EXEMPTION GRANTED

Erin Rotheram-Fuller  
 Division of Educational Leadership and Innovation - Tempe  
 -  
 Erin.Rotheram-Fuller@asu.edu

Dear Erin Rotheram-Fuller:

On 8/24/2016 the ASU IRB reviewed the following protocol:

Type of Review:	Initial Study
Title:	Teacher Educator Portfolios: Using Peer and Student Feedback as a Process for Continuous Reflection and Learning
Investigator:	Erin Rotheram-Fuller
IRB ID:	STUD Y00004751
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	<ul style="list-style-type: none"> <li>• Measure_Student Feedback Survey.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);</li> <li>• Measure_Post Intervention Interview.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);</li> <li>• Measure_Pre Intervention Interview.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);</li> <li>• Off-site authorization letter, Category: Off-site authorizations (school permission, other IRB approvals, Tribal permission etc);</li> <li>• Measure_Peer Observation_Self Reflection Form.pdf, Category: Measures (Survey</li> </ul>

	<p>questions/Interview questions /interview guides/focus group questions);</p> <ul style="list-style-type: none"> <li>• Teacher educator script to recruit teacher candidates.pdf, Category: Consent Form;</li> <li>• Beal_IRB Application_8_15.docx, Category: IRB Protocol;</li> <li>• Teacher Educator Consent Form_8_9.pdf, Category: Consent Form;</li> <li>• Teacher Educator Recruitment Form_8_9.pdf, Category: Recruitment Materials;</li> </ul>
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The IRB determined that the protocol is considered exempt pursuant to Federal Regulations 45CFR46 (1) Educational settings, (2) Tests, surveys, interviews, or observation on 8/24/2016.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

Sincerely,

IRB Administrator

cc: Sarah Beal  
Sarah Beal