MODELING EFFECTIVE INSTRUCTION

IN THE TEACHER EDUCATION CLASSROOM

By

ASHLEY WARREN

A dissertation submitted to the

Graduate School of Education

Rutgers, The State University of New Jersey

in partial fulfillment of the requirements

for the degree

Doctor of Education

Written under the direction of

_____

Dr. Alisa Belzer, Chair

_____

Dr. Nora Hyland, Committee

_____

Dr. Colette Gosselin, Committee

New Brunswick, New Jersey

May 2019

Abstract

This study explores teacher educators' beliefs and practices related to the modeling of effective instruction in the pre-service classroom. Previous research has shown that when teacher educators model effective instructional practice, there are positive learning outcomes for pre-service teachers and for teacher educators (Daniel, 2011; DeLuca, Chavez, Bellara, & Cao, 2013; Hogg & Yates, 2013; Ritter, 2012; White, 2011). Yet the literature on teacher educator modeling is sparse, especially in foundations courses. While limited, the extant research indicates that teacher educators do not model as explicitly or as widely as scholars recommend (Lunenberg, Korthagen, & Swennen, 2007; Ritter, 2012; Ruys, Defruyt, Rots, & Aelterman, 2013; Santangelo & Tomlinson, 2012). To explore teacher educator modeling, this multi-case study included two class observations, a pre-observation interview, and a post-observation interview with four instructors who teach required foundations courses in the Rutgers Graduate School of Education (GSE) teacher preparation program. Interview data indicate that the instructors believe that teacher educator modeling is an important aspect of pre-service learning, and observational data suggest that the instructors regularly engage in implicit modeling of effective instructional practice. However, explicit modeling types, which the literature indicates are most beneficial for pre-service learners (Grossman, 2018), were underutilized. The data also suggest that there is a relationship between instructors' beliefs about teacher educator modeling and the types of modeling that they enact. The instructors who believe that teacher educator modeling involves modeling instructional practices and pedagogical thinking were the most likely to model explicitly, whereas the instructors who believe that teacher educator modeling involves modeling attitudes and beliefs were more likely to model implicitly. These findings have implications for

the GSE and, more broadly, for education preparation providers wishing to enhance both teacher

education pedagogy and pre-service teacher learning.

Acknowledgements

In the past few months, I have learned that it takes a village to raise a child and that it takes several villages to write a dissertation. I would like to take a moment to express my gratitude to those villages.

I am appreciative of the excellent teachers and mentors that I have had across all stages of my life; they have kindled a love for education in my heart, and I hope that this project serves as evidence of their lasting impact. I would especially like to thank my advisor, Dr. Belzer, for her strong guidance and generous support throughout the dissertation process. Her thorough feedback helped me every step of the way. I am also grateful to Dr. Hyland and Dr. Gosselin for their willingness to share their expertise and serve on my committee.

I reached the dissertation phase of my program with the help of many members of the GSE community. Joining a cohort of educators was a wonderful experience; learning with and from my cohort members was one of the great joys of my program. I am also indebted to the GSE professors who continually encouraged me to improve learning and teaching by tackling problems of practice. Additionally, I am grateful for the instructors who participated in my study. Their commitment to educating future teachers is nothing short of inspiring.

Beyond the GSE, I found great encouragement from my West Windsor-Plainsboro school community. Not many people can say that they wake up every morning excited to go to work, but I can. My colleagues are a constant source of support, and the village mentality allows us to work together to teach, mentor, and build relationships with our students.

Over the last ten years, I have had the privilege of teaching the best students a teacher could ever imagine. They deserve amazing teachers, a motivating factor in this study. I am eternally grateful to my students for their patience, understanding, and comedic relief throughout

my graduate program. Their creativity and resiliency taught me how to be a better student. As I watch them grow and graduate, I am grateful for the time that we spent together, and I am hopeful that they continue to learn and explore their passions wherever life may take them.

Of all the "villages" considered here, my family has proven to be the most important. I am who I am today because of the strong example set by my mother and father. My parents provided the love and support that allowed me to find my own path and march toward my own dreams. They modeled integrity, hard work, and determination, traits that I try to embody today. Gratitude does not begin to describe how I feel towards them. I am also thankful for my brother, my first "student," who let me play "school" with him for hours in our basement. Now, as adults, I am fortunate to call him and his wife my trusted friends. I am also fortunate to have the closest confidant that anyone could ever ask for; Katie has become a sister to me, and her wisdom, compassion, and humor enrich my life. Finally, I wish to thank Matt, my partner in all things. I am convinced that there is no better husband or father in the world. Your love empowers me to take on challenges that I never imagined possible, and your companionship fills my life with joy. Thank you for believing in me and cheering me on at all times. I am excited to finish this journey and embark on new adventures with you and our amazing daughter.

Table of Contents

List of Tables

Chapter One: Introduction

Teacher education is a complex endeavor, because teachers tend to teach as they were taught regardless of whether they experienced best practices (Lortie, 1975). Teacher preparation programs thus act as an intervention, deepening, and in some cases, supplanting, the "received wisdom" that students gained through prior classroom experiences (Grossman, Hammerness, & McDonald, 2009; Kennedy, 1999). This intervention is necessary, as much of pre-service teachers' "received wisdom" may not be aligned with current views of effective teaching and learning (Putnam & Borko, 2000). To facilitate a successful intervention, teacher educators employ a variety of instructional strategies and activities such as microteaching, case methods, practitioner research, portfolios, and reflective writing (Darling-Hammond, 2006; Grossman, 2005; McDonald, Kazemi, & Kavanagh, 2013). While these strategies are essential components of a teacher educator's toolbox, one pedagogical strategy especially seeks to align current views of effective teaching and learning to teacher education instruction: teacher educator modeling (Loughran, 1997; McGrew, Alston, & Fogo, 2018).

In teacher education pedagogy, modeling is defined as enacting or displaying teaching practices and postures that promote the development of effective practices in pre-service teacher candidates (see also Lunenberg, Korthagen, & Swennen, 2007). In the United States, the Teacher Educator Standards highlight the important role that this pedagogical approach has in the field: "Effective modeling of desired practices is at the heart of successful teacher education programs at pre-service and in-service levels" (The Association for Teacher Educators, 2008, p. 1). In this way, teacher educator modeling builds upon Lortie's (1975) claim that teachers "teach as they were taught," but ensures that teacher educators expose pre-service teachers to effective examples of learning and teaching that teacher educators want to see their pre-service teachers

enact. In other words, when teacher educators model effective teaching practices, it helps pre-service teachers to experience and reflect upon the effective instructional practices that they will be expected to practice in their future classrooms.

In my conversations with pre-service teachers, some report that their teacher educators carefully model effective instructional practices. For example, Yvette, a senior music education major in New Jersey, believes that her "teachers have absolutely […] walked the talk. They have done exactly as they taught, and they serve as models for [pre-service teachers]." At the same time, pre-service teachers recognize that some of their professors do not model the tenets that they teach. Bill, a senior music education major in the same program with Yvette, highlighted this predicament when he reflected on his professors:

> You're [taking] a class about Critical Pedagogy [CP], and [the teacher educator is] not
> even starting with the first thing we learn from Critical Pedagogy: honor the world of the
> students because it's all supposed to be…student centered…but you could easily have a
> teacher up there teaching you a class on CP and it's not even remotely personal.

Bill's observation illustrates that professors can teach about a philosophy or practice in the abstract, but fail to model what they teach; Bill's example highlights the difference between "telling and teaching" in teacher education (Loughran, 1997). Similarly, other pre-service teachers express concern that their teacher educators do not model the types of instruction that teacher candidates are expected to demonstrate in order to be rated "effective" or "highly effective" once they start working in New Jersey. Trevor, a junior social studies education major, emphasizes this concern when discussing one of his foundations of education classes:

> [The teacher educator] talked about good teaching. She was like, 'As a teacher you
> should be flexible [and] fun…[but] she was a professor who had like the PowerPoints and

she lectured us for two and a half hours. … It wasn't like an activity-driven class, [even

though] they want us to be activity-centered teachers [who emphasize] student-centered

[learning].

Trevor knows that he will need to design student-centered learning experiences to be considered

an effective teacher in New Jersey, but his foundations professor does not model that

pedagogical approach in the pre-service classroom. As a teacher and an alumna of a New Jersey

teacher education program, I can echo the sentiments of Trevor, Bill, and Yvette; some of my

teacher educators took great care to model effective instruction to their students, while other

instructors seemed to unintentionally model practices that do not align with descriptions of

proficient or effective instructional practice. These experiences are not unique; in fact, my

experiences and the experiences of the pre-service teachers quoted here reflect larger trends

identified in teacher education research (DeLuca, Chavez, Bellara, & Cao, 2013; Lunenberg et

al., 2007; Ritter, 2012; Santangelo & Tomlinson, 2012; Smith, 2005). These trends suggest that

teacher educator modeling is valued by pre-service teachers, novice teachers, and teacher

educators (DeLuca, Chavez, Bellara, & Cao, 2013; Ritter, 2012; Smith, 2005), but is not

consistently practiced as an instructional approach within teacher education (Lunenberg et al.,

2007; Santangelo & Tomlinson, 2012; Swennen, Lunenberg, & Korthagen, 2008).

Study Context

Understanding how teacher educators model effective instruction is important given the

current landscape of teacher education reform and hyper-accountability in New Jersey

(Buchanan, 2015; Darling-Hammond, 2010b; Ginsberg & Kingston, 2014; New Jersey

Department of Education, 2015a; New Jersey Department of Education, 2015b; Shulman, 2015).

The New Jersey State Board of Education (BOE) recently adopted a series of teacher education

and certification reforms in the hopes of "prepar[ing] novice teachers to…effectively serve

students from day one" (Shulman, 2015, p. 1). For instance, in addition to the previously

required semester of "clinical practice" or student teaching, the Department of Education (DOE)

now requires that pre-service teachers complete 175 hours of K-12 clinical experience before

starting the traditional student teaching semester (Clark, 2015; New Jersey Department of

Education, 2015a). This change "raised red flags at colleges across the state, including Rutgers,

Princeton, [T]he College of New Jersey and Montclair State, among others" because the reform

affects the structure of teacher education programs (Clarke, 2015). That is, education

preparation providers (EPPs) need to adapt their programs so that students can complete the new

clinical hour requirement prior to the student teaching semester.

Beyond this structural reform, the DOE has initiated many reforms related to the

assessment of teacher education; these reforms reflect the larger trends of hyper-accountability in

K-12 and teacher education (Buchanan, 2015; Darling-Hammond, 2010b; Ginsberg & Kingston,

2014; New Jersey Department of Education, 2015a; New Jersey Department of Education,

2015b). For instance, in addition to demonstrating proficient knowledge on the Praxis exams,

New Jersey pre-service teachers now need to demonstrate that they can enact effective

instruction through a performance evaluation known as edTPA. In this evaluation, teacher

candidates submit artifacts related to their teaching performance, such as videos of classroom

instruction, digital lesson plans, and examples of their self-reflections; teacher candidates must

receive a score equal to or higher than the "cut scores" established by the New Jersey

Department of Education in order to obtain licensure (2017). Once pre-service teachers become

licensed and obtain K-12 employment in New Jersey, they will join the ranks of teachers whose

instructional effectiveness is measured by several high-stakes evaluations multiple times a year.

Additionally, instead of receiving a standard certificate after one year of teaching, teachers new to the field must now demonstrate effective instruction over two years to receive a standard certificate, and must wait four years instead of three years to obtain tenure (New Jersey Department of Education, 2015a).

These teacher education reforms are framed in language that presupposes that teacher education needs to be "improved." In a 2015 memo, the DOE addresses New Jersey school leaders and explains, "Over the past several years, we have focused on developing existing teachers through improved evaluation and professional support systems. To complement these efforts, we are proposing changes to enhance the effectiveness of novice teachers through preparation and certification" (Shulman, 2015, p. 1). In their quest to "enhance the effectiveness" of teachers, the DOE's reforms have targeted both the structure and the assessment of teacher education programs. However, these reforms have yet to specifically address teacher education *pedagogy*. Because the reforms target the structure and assessment of teacher education, but do not target instruction, historians and researchers caution that such reforms may not engender deep change or improve pre-service teacher learning (Ball & Forzani, 2009; Boyd, Goldhaber, Lankford, & Wyckoff, 2007; Elmore, 2003; Fuhrman, 2003; Tyack & Cuban, 1995). This study thus sets aside the question of whether teacher education needs to be improved, and instead considers how improving teacher education *instruction* may complement the current reform efforts related to the structure and assessment of teacher education in New Jersey.

To do so, this study will explore teacher educators' beliefs and practices related to the modeling of effective instruction in two foundations courses that are part of a newly-designed Urban Social Justice Core in the Rutgers Graduate School of Education (GSE). Foundations courses often include courses such as educational psychology, history of education, sociocultural

foundations of education, and philosophy of education (Darling-Hammond, 2006; Floden &

Meniketti, 2005); in the GSE's newly redesigned Urban and Social Justice Core, foundations

courses include Urban Education 1 & 2, Teaching Emerging Bilinguals in PK-12 Classrooms 1

& 2, and Inclusive Teaching in Education. Teachers educators have historically designed

foundations courses to provide pre-service teachers with the lenses or frameworks assumed to be

necessary for effective teaching, while methods courses provide pre-service teachers with the

"practical" knowledge and skills necessary for teaching (Grossman et al., 2009). Research on

foundations courses is "scant" (Floden & Meniketti, 2005) when compared to research on

methods and field education classes (Clift & Brady, 2005), and teacher education literature

reveals that national, state, and local policy changes are leading to the marginalization of

foundations courses in many EPPs (Christou, 2009; Hardee & McFaden, 2015; Tozer

& Miretzky, 2005).

Many EPPs lament this marginalization, as foundations courses serve an important

function in teacher education programs (Edmundson & Greiner, 2005; Hardee & McFaden,

2015). For instance, Edmundson and Greiner (2005) observe that the objectives of foundations

courses often align with the mission of EPPs: "to widen the reach of justice" through education

(p. 153). That is, because foundations courses explore the social, psychological, and historical

landscape of education, the coursework can help pre-service teachers develop a justice-oriented

philosophy of education that they carry into their own classrooms. Research has shown that pre-

service teachers agree that foundations courses can be formative; in some cases, pre-service

teachers believe that foundations courses help them to "evaluate the kinds of teachers they want

to be…, define who they are as professionals, and use that base to understand and then

problematize the current context of schooling and their role in it" (Carter, 2008, p. 242). Thus,

foundations courses often support the mission of teacher education programs and can help pre-service teachers to negotiate and form their identity as teachers.

Because foundations courses are a valuable part of teacher education programs, many EPPs have begun to reconsider how these courses might be restructured so that they are not marginalized or removed from the pre-service teaching program. Grossman et al. (2008) urge teacher education programs to ensure that "foundations courses are not only inherently about conceptual tools, but also come to represent a deep form of learning about practices" (p. 246). This suggestion makes sense given the nature of current teacher education discourse, where reformers advocate a practice-based approach to teacher eduation (Ball & Forzani, 2009; Forzani, 2014; Grossman, Kavanagh, & Pupik Dean, 2018; McDonald, Kazemi, & Kavanagh, 2013; Zeichner, 2012). To help pre-service teachers experience "practice-based" foundations coursework, teacher educators at schools like the University of Northern Georgia have added field components to their foundations courses so that they can "brin[g] together [the] university and [the] community in ways that engage students in high-impact practices, require them to think critically, and provide them the opportunity to actualize the theories about which they are reading in ways that do not reify stereotypes or perpetuate bias" (Hardee & McFaden, 2015, p. 34). In essence, these teacher educators hope that integrating foundations courses and clinical experiences will give students an opportunity to see the teaching practices that correlate with their theoretical learning.

However, Zeichner (2012) cautions that simply integrating foundations courses and clinical experiences is not enough to foster practice-based teacher education. According to Zeichner (2012), "what makes a teacher education course practice based is its systematic focus on developing teacher candidates' abilities to successfully enact high-leverage practices" (p.

378). Teacher educators can introduce pre-service teachers to these high-leverage, core teaching

practices by engaging in explicit teacher educator modeling (Grossman, 2018). Darling-

Hammond (2006) notes that modeling is a hallmark of exemplary teacher education programs; in

these "powerful" programs, teacher educators "mode[l] or demonstrat[e] the practices they

describe[e]" (p. 98), giving pre-service teachers the opportunity to observe and experience the

core practices that their teachers promote. This approach might seem easiest to enact in methods

classes, where teacher educators introduce pre-service teachers to strategies and skills for

teaching K-12 education, and therefore have the opportunity to model the skills that they

describe. Foundations instructors, on the other hand, do not generally "describe" core

pedagogical practices as their central focus, but instead help pre-service teachers to acquire the

conceptual lenses necessary for teaching. Yet this does not mean that foundations instructors are

unable to model high-leverage practices; foundations instructors can model core, effective

teaching practices like facilitating student discussions, assessing student learning, engaging

students in the learning process, etc., which are not tied to teaching a specific subject matter or

grade level (Grossman, 2018; Zeichner, 2012). By explicitly modeling effective pedagogical

practices that future teachers should employ in the K-12 classroom, foundations instructors can

strengthen the practice-based nature of their school's teacher education program and thereby

further support pre-service teacher learning.

     To explore foundations instructors' beliefs and practices related to modeling effective

instruction, I interviewed and observed instructors teaching two newly-designed foundations

courses in the Graduate School of Education (GSE) at Rutgers University. The co-requisite

courses, Urban Education 1 & 2 and Teaching Emerging Bilinguals in PK-12 Classrooms 1 & 2

are both three-credit, two-semester courses that are mandatory for all pre-service teachers in the

GSE's five-year Ed.M. program; all students in the program take these courses prior to student teaching. These courses were launched in 2017 and are currently taught by instructors who often meet to discuss the courses and their shared syllabi. According to the Urban Education syllabus, one of the central objectives of the course is that pre-service teachers will develop the knowledge, skills, and dispositions essential to "socially just teaching" in urban and diverse settings. Similarly, the Teaching Emerging Bilinguals course seeks to build pre-service teacher capacity so that they can meet the linguistic and cultural needs of students in urban settings.

Just as the University of Northern Georgia sought to restructure their foundations course to make it more practice-based, so too has the GSE. For example, while the Urban Education course addresses many of the theoretical topics that one might expect to see in a foundations class, such as social class, race and racism, and structural inequality, the course also includes topics that ground the theoretical constructs in the practical work of teaching, including classroom management, discipline in urban settings, and culturally responsive pedagogies. This illustrates how the faculty has worked to intentionally address theory and practice in the course curriculum. Similarly, the GSE has taken steps to structure both the Urban Education and Teaching Emerging Bilinguals courses in a way that will help students to view the course content through the lens of their discipline. To do so, the GSE has organized the Urban Education and Teaching Emerging Bilinguals sections according to pre-service teachers' content-area specialization. This means that pre-service history teachers take the foundations courses with other pre-service history teachers, while pre-service math teachers take the courses with their pre-service math colleagues. This structural decision is unique, as pre-service teachers in the GSE have traditionally been grouped by discipline for methods courses, but not foundations courses. In addition to taking the Urban Education and Teaching Emerging Bilinguals courses

with their content-area cohort, students are also co-enrolled in a clinical practice course. In this

class, pre-service teachers are assigned to GSE partner schools under the supervision of certified

cooperating teachers in the pre-service teachers' areas of specialization. Thus, by carefully

considering both the structure and content of these new courses, teacher educators in the GSE are

working to build pre-service teacher capacity by intentionally promoting a practice-based

approach in their foundations courses.

Because the Urban Education and Teaching Emerging Bilinguals courses were designed

to address both the conceptual and practical needs of pre-service teachers, and since all pre-

service teachers in the five-year program take these courses, the Urban Education and Teaching

Emerging Bilinguals courses are unique sites to explore how instructors understand and model

effective instruction for their pre-service students.

Teacher Educator Modeling

Teacher educator modeling can take on many forms. First, modeling can occur implicitly

or explicitly (Lunenberg et al., 2007; Ritter, 2012). Implicit modeling occurs constantly in the

teacher education classroom, because every pedagogical move that a teacher educator makes

does, for better or for worse, serve as a model for pre-service teachers. In contrast, explicit

modeling occurs when a teacher educator makes the intentional decision to enact a practice that

she wants her students to experience or observe and "marks" or calls attention to her explicit

modeling (Grossman, 2018). When a teacher educator explicitly models, she can extend the

modeling experience by linking the modeled practice to educational theory or helping the pre-

service teachers transfer the modeled behavior to their own practice. This definition of modeling

draws on the idea of cognitive apprenticeship (Collins, Brown, & Holum, 1991); much like a

master craftsman might go about her work while simultaneously explaining to her apprentice

how and why she carries out her practice, so too can teacher educators implicitly and explicitly

model effective instruction and verbally reflect on that practice with their pre-service teachers.

Teacher education modeling has important theoretical roots in specific learning theories.

For example, Bandura's (1971) Social Learning Theory posits that learning occurs through

observation and experience. Blume (1971) and Lortie (1975) directly relate Bandura's (1971)

theory to teacher education when they assert that teachers are "apprentices of observation," who

teach as they were taught, not necessarily as their teacher educators told them how to teach.

More recently, Grossman (2005) used Blume and Lortie's claims to remind the teacher education

community that "the medium *is* the message" in the case of teacher education, and pre-service

teachers will learn from what they observe their teacher educators doing, not just what their

teacher educators tell them (p. 425). That is, in addition to the content that teacher educators

address, the pedagogy that teacher educators enact is also part of the message that they convey to

their pre-service teachers. Thus, because pre-service teachers learn from both 1) the content of

the class and 2) the pedagogy employed by the teacher educator, teacher educator modeling is a

promising way to promote pre-service teacher development.

To understand the status of modeling in teacher education, I now turn from the theoretical

work to an empirical look at modeling practices and beliefs. It is here that researchers highlight

several gaps or problems in the literature (Lunenberg et al., 2007; Ritter, 2012; Smith, 2005). For

example, Smith (2005) describes a difference of priorities between novice teachers and teacher

educators. In her study, teacher educators did not prioritize modeling as a critical aspect of "good

teacher education," though novice teachers found modeling to be the most important aspect of

"good" teacher education. Other researchers explain the problem differently. For example,

Lunenberg et al. (2007) note that modeling is a widely recognized strategy, but in their study,

they did not find that effective instructional modeling was enacted. Direct observations of ten

Dutch teacher educators revealed that they rarely or never engaged in the four types of modeling

identified by the researchers. Lunenberg et al. (2007) conclude that "on the basis of the literature

search and our exploratory study, there appears to be little or no recognition of modelling as a

teaching method in teacher education" (p. 597).

Lunenberg et al. (2007) present a pessimistic vision of teacher educator modeling, but

other researchers challenge Lunenberg et al.'s (2007) findings. In the last decade, teacher

educators, educator preparation programs, and educational researchers have explored the role of

modeling in pre-service teacher learning, and this research has documented both intentional

efforts to promote and affirm the benefits of teacher educator modeling (Braga & Liversedge,

2017; Daniel, 2011; Ritter, 2012, Scrabis-Fletcher, Juniu, & Zullo, 2016; van den Bos &

Brouwer, 2014). Despite researchers' growing focus on modeling, the related empirical literature

is still thin, and mostly comprised of self-studies (Bullock & Christou, 2009; Hogg & Yates,

2013; Loughran & Berry, 2005; Ritter, 2012; White, 2011). As such, I hope to contribute to the

field of teacher education by conducting a multi-case study of the modeling practices of

foundations instructors in the Rutgers Graduate School of Education. This multi-case study is

designed to help researchers and practitioners understand more about teacher education modeling

by focusing on what a small sample of foundations instructors believe about modeling and how

they model effective instruction in the classroom.

Problem of Practice

Modeling is a stated instructional goal of many teacher education programs and a practice

that researchers and teacher educators recommend (Korthagen et al., 2006; McGrew, Alston, &

Fogo, 2018; The National Council for Accreditation of Teacher Education, 2008; The

Association for Teacher Educators, 2008). Yet my own experiences, the experiences of other pre-service teachers, and the teacher education literature demonstrate that teacher educators do not consistently and explicitly model the instructional practices that pre-service teachers need to enact as future K-12 instructors. The literature on teacher educator modeling in foundations courses is particularly sparse. To strengthen teacher education pedagogy in these foundations courses, it is important to first understand what instructors believe about modeling, and then explore how they model effective instructional practices.

When it comes to modeling effective instruction, there is little known about foundations instructors' beliefs and practices. To address this problem of practice, this multi-case study will triangulate data collected in class observations and qualitative interviews to explore what foundations instructors in one EPP site believe about teacher educator modeling and how they model effective instruction to pre-service teachers. Ultimately, I hope to provide a more comprehensive and layered look at teacher educator modeling by examining the relationship between instructors' beliefs and practices as they relate to teacher educator modeling.

Conclusion

If future teachers are to become effective instructors, they must be exposed to effective instruction and learn how to use those models to become effective teachers (Aleccia, 2011; Loughran & Berry, 2005; Lunenberg et al., 2007). However, based on my experiences and my colleagues' experiences, both of which are affirmed by the research literature, teacher educators do not consistently and explicitly model effective instruction as widely as would be ideal. By examining this problem of practice, it may be possible to move beyond New Jersey's current reforms related to the assessment and structure of teacher education, and instead suggest reforms that target the instruction that pre-service teachers receive. In turn, these pedagogical reforms

may improve the quality of pre-service teacher preparation, K-12 teacher instruction, and even New Jersey schools (Cochran-Smith, 2001; Cochran-Smith et al., 2011; Grossman, 2018; Korthagen et al., 2006; Lunenberg et al., 2007).

Because addressing this problem of practice related to teacher educator modeling has great potential for improving teacher education programs, I will seek to explore the following research questions through my multi-case study of foundations instructors:

- What do foundations instructors believe about modeling in a teacher education program?

- In what ways do foundations instructors model effective instructional practices in their foundations courses?

- What is the relationship between foundations instructors' beliefs and practices as they relate to teacher educator modeling?

Chapter Two: Literature Review

As the purpose of this study is to explore teacher educators' beliefs and practices related

to the modeling of effective instruction in pre-service foundations courses, I am purposely

drawing on three bodies of literature to frame my study: 1) emphases on accountability and

effectiveness in K-12 education and teacher education 2) teacher education preparation and

pedagogy, and 3) modeling as a pedagogical approach in teacher education. To explore notions

of effective instruction, I will first examine the climate of accountability, both nationally and

locally, in relation to teacher education. Within this climate of accountability, states have brought

about teacher certification and K-12 reforms that seek to ensure that today's teachers are

effective. To understand how teacher educators are preparing pre-service teachers in this time of

increased accountability and reform, I will provide an overview of the present pedagogical

landscape in teacher education, highlighting current emphases on "core practices" in teacher

education. Researchers have found that when teacher educators model these core, effective

instructional practices, teacher educators can generate positive outcomes for pre-service teachers

(Braga & Liversedge, 2017; Daniel, 2011; DeLuca, Chavez, Bellara, & Cao, 2013; Jarvis,

Dickerson, Thomas, & Graham, 2014; Ritter, 2012; Scrabis-Fletcher, Juniu, & Zullo, 2016). To

understand how modeling can promote this pre-service teacher learning, I will situate teacher

educator modeling in apprenticeship and experiential learning literature, consider the theoretical

literature on modeling, and highlight empirical evidence that demonstrates how modeling can

help both pre-service teachers and teacher educators improve their professional practice. In the

end, the three bodies of literature will provide the overarching context for my research on

foundations instructors' beliefs and practices related to teacher educator modeling.

Accountability and Evaluation of Effective Instruction

Demands for teacher accountability have been growing throughout the last several

decades in the United States (Cochran-Smith & Demers, 2008; Cochran-Smith & Villegas, 2015;

Crowe, 2010; Darling-Hammond, 2010a; Darling-Hammond, 2010b; Ginsberg & Kingston,

2014; Pianta & Kerr, 2014). Here, accountability refers to the tight coupling of teaching practice

to national and state standards and to standardized tests (Buchanan, 2015; Smith & O'Day,

1991). This occurs because there is an increased emphasis on measuring student outcomes in K-

12 education, and policymakers, reformers, and various scholars place the charge of improving

student outcomes on teachers (Buchanan, 2015; Cochran-Smith & Demers, 2008; Darling-

Hammond, 2010a; Ginsberg & Kingston, 2014; Herlihy et al., 2014). Because teachers are

assumed to be responsible for improving student outcomes in this paradigm, it follows that

teachers should be held accountable for their work. This accountability is manifest in several

ways; as Herlihy et al. (2014) explain, reforms tied to *Race to the Top* legislation and the *No*

Child Left Behind Act of 2001 make "teacher evaluation both more rigorous and more grounded

in specific job performance domains such as teaching quality and contributions to student

outcomes" (p. 2). Yet tying teachers' annual evaluations to students' testing outcomes is not the

only evidence of increased teacher accountability. One can observe other accountability-related

trends at the state and national level, such as the increased frequency and standardization of

teacher observations, reformed tenure policies, and merit pay initiatives (Darling-Hammond,

2004).

In this climate of increased teacher accountability, it is no longer enough for EPPs to

focus solely on preparing highly *qualified* teachers; they must also focus on preparing highly

effective teachers (Cochran-Smith et al., 2010; Cochran-Smith & Demers, 2008; Darling-

Hammond, 2010a). "Highly qualified," in this sense, refers to the preparation, degree, credit hours, and test scores that are received en route to becoming a teacher, whereas the term "highly effective" places emphasis on teaching skills and abilities in relation to student outcomes. As Darling-Hammond (2010a) explains, there has been a "growing interest in moving beyond traditional measures of teacher qualifications, such as completion of a preparation program, number of degrees, or years of experience, in order to evaluate teachers' actual performance as the basis for making decisions about hiring, tenure, licensing, compensation, and selection for leadership roles" (p. 2). That is, while degrees and certifications were once considered an appropriate proxy for teacher quality, today's teachers must actually demonstrate effective practice, both through performance assessments during pre-service education, using instruments such as the edTPA assessment, and during in-service work, using state-approved evaluation instruments.

> **Accountability in teacher education.** Consistent with this shift from teacher quality to teacher effectiveness comes increased attention on the effectiveness of teacher education. This increased emphasis on accountability in teacher education is documented in the literature; in an evaluation of 1,500 empirical, peer-reviewed studies of teacher education, Cochran-Smith and Villegas (2015) find that "one of the major policy/political trends that has influenced teacher preparation is unprecedented attention to teacher quality and accountability with a heavy emphasis on policies related to entry pathways, certification, testing, and assessment" (p. 13). These changes in teacher certification policies often affect teacher education programs. For example, as noted earlier, New Jersey pre-service teachers now need to complete more hours of clinical practice, or student teaching, to obtain certification: today's pre-service teachers must complete two semesters of clinical practice instead of the one semester that was previously

required. Pre-service teachers must also pass the edTPA performance assessment in order to

obtain initial teacher licensure. Additionally, New Jersey teacher candidates now need a 3.0

cumulative grade point average (GPA) to apply for certification, which the State Board of

Education raised from the previous 2.75 GPA requirement (Clark, 2015; New Jersey Department

of Education, 2015a). While the challenges that these accountability reforms present for teacher

education programs should not be overlooked, there are some important differences between

accountability in K-12 and teacher education environments.

One notable difference between K-12 and teacher education accountability measures is

the level of accountability present in each context. K-12 schools and EPP sites are similar in that

both are evaluated as organizations. For example, each K-12 school is evaluated as an

organization across multiple state-defined measures, and EPPs are evaluated for external

accreditation through organizations such as the National Council for Accreditation of Teacher

Education (NCATE) or the Council for the Accreditation of Educator Preparation (CAEP) and

assessed by the state department of education for specific outcomes. However, all public K-12

teachers are evaluated at the individual level in New Jersey, yet teacher educators are not

required to undergo individual evaluation on any state-approved tool to measure effectiveness.

Furthermore, teacher educators are not individually linked to their pre-service teachers' test

scores, such as the Praxis exam, edTPA, or data from alumni teachers' performance. This is in

contrast to K-12 educators in New Jersey, who must be evaluated by a state-approved

instrument, whose evaluation scores are kept on record with the state and tied to hiring and

tenure decisions, and whose evaluations are linked to students' test scores or student growth

percentiles (SGPs).

Critics of teacher education indicate that the lack of consistent state oversight for EPPs reduces the quality of teacher education. In a report entitled *Measuring What Matters: A Stronger Accountability Model for Teacher Education*, Crowe (2010) notes:

There is no evidence that current state policies hold [teacher education] programs to high standards in order to produce teachers who can help students achieve. Moreover, every state does its own thing when it comes to program oversight—another barrier to effective quality control. (p. 1)

Crowe (2010) calls for states to take significant steps "toward more rigorous accountability policies for teacher education programs," a call that New Jersey seems to be heeding (p. 3). In 2012, New Jersey began collecting data on EPPs to compile annual reports, with the first annual report published in 2014. According to the Department of Education's website, these reports will evolve, but currently,

Annual Reports are *not designed for accountability purposes* [emphasis added]. Rather, they summarize and share available data in order to: empower institutes of higher education with information to promote continuous improvement; supply hiring entities with data about providers and their graduates; equip prospective teachers with empirical information about their choices for preparation; shed light on programs which are preparing strong educators; and promote ongoing efforts to professionalize teaching and teacher preparation. (New Jersey Department of Education, 2014a)

Essentially, EPPs in New Jersey are not yet evaluated for accountability purposes at the state level. Indeed, the data contained in these reports merely describe the EPPs as a whole; individual teacher educators' evaluations are not recorded by the state as they are in the K-12

system, and no interventions, consequences, or rewards have yet to be associated with these EPP reports.

However, consistent with the new emphases on teacher effectiveness described above, EPPs may soon see accountability reforms that mirror reforms in the K-12 context. For example, policies like the federal *Race to the Top* initiative encourage states to "link teachers to their students' test scores and to use these data to evaluate the *effectiveness* [emphasis added] of both teacher education programmes and individual teachers" (Darling-Hammond, Newton, & Chung Wei, 2010, p. 369). The National Council on Teacher Quality (2013) also addresses accountability reforms for teacher education programs, recommending that states employ "value-added analysis of student test scores to identify programs producing the most *effective* [emphasis added] graduates" (p. 63) and use aggregated results from teacher evaluation instruments to provide more data on teacher education programs. These recommendations, coupled with policies like *Race to the Top,* may signal that more accountability reforms targeting teacher education are on the horizon.

Overall, the literature indicates that the climate of educational accountability has increased scrutiny on K-12 teachers, as demonstrated by more frequent and standardized evaluations of their instructional performance and student assessment outcomes, along with other state-specific measures. These increased K-12 accountability policies and practices have had an impact on EPPs; as Pianta and Kerr (2014) describe, "layered onto this focus on assessment for practicing [K-12] teachers is the massive need, and increased attention to, competency-driven assessment and improvement of teacher-preparation programs" (p. 583). Indeed, the past two decades have been described as a time of reform and improvement for teacher education programs (Cochran-Smith, 2003; Darling-Hammond, 2000; Feiman-Nemser, 2001; Korthagen et

al., 2006; Grossman et al., 2009). Despite this period of reform, EPPs are not held to the same accountability standards as K-12 teachers, and there is no focus on actual teaching practices in EPPs. This sets the stage for my research, as today's pre-service teachers will become K-12 teachers during a time of increased accountability, which means that they need access to high quality teacher education programs.

Teacher Educator Preparation and Pedagogy

The charge to develop effective teachers in this climate of accountability is entrusted, in large part, to teacher educators. Given this important task, one might ask how teacher educators are prepared to meet the demands of educating effective future teachers. Unfortunately, a search of the literature indicates that we do not know as much as we might hope about teacher educators and their professional preparation (Cochran-Smith, 2003; Goodwin & Kosnik, 2013; Goodwin et al., 2014; Korthagen et al., 2005; Martinez, 2008; Murray, 2005; Murray & Male, 2005). For example, in the three editions of the *Handbook on Research in Teacher Education,* which are seminal works in the field of teacher education, only one of the more than fifty chapters in each edition focuses specifically on teacher educators (Kosnik et al., 2011). What is known from this limited literature base is that a diverse array of players take part in teacher education, as Cochran-Smith (2003) explains:

> Many teacher educators are part-time, adjunct, temporary, and/or clinical faculty and
> fieldwork supervisors; graduate students who supervise [student teaching] as part of
> financial assistantships or part-time jobs; and school-based personnel who work as site-
> based supervisors, coordinators, and school-university liaisons. These people are not the
> professoriate, whose preparation and training for the field have been analyzed in the
> research literature in terms of demographics, university status, academic background,

research productivity (or, more often, the lack thereof), and pedagogy. (p. 22)

In other words, a variety of individuals engage in teacher education, and the thin teacher

education research that does exist on this topic may be further limited because only full-time

teacher education faculty members, or the professoriate, tend to be included in the research

despite the fact that they are only one group responsible for teacher training.

     Teacher educator preparation. The extant research does tell us that teacher educators

are rarely systematically prepared for their work with pre-service teachers (Cochran-Smith,

2003). That is, there is no specific university degree, certification, or license that teacher

educators must possess to engage in the work of teaching future teachers. For instance, a study of

teacher educators across the European Union found that the great majority of teacher educators

became teacher educators without formal training related to educating pre-service teachers and

with little support from experienced teacher educators (Wilson, 1990). Over a decade later,

Murray's (2005) exploration of 28 teacher educators' induction into teacher education in

England revealed similar findings; notably, he observed that teacher educators are "still

dependent on learning through practice, supplemented by informal 'apprenticeship' modes of

learning" (p. 67). North American teacher educators report similar trends: "in evaluating their

doctoral preparation, [20 teacher educators] unanimously expressed that there was no explicit

development of teaching skills or pedagogies for teacher educating" in their doctoral preparation

(Goodwin et al., 2014, p. 291). However, recent efforts to overcome this lack of preparation are

manifest in Kosnik et al.'s (2011) self-study of a university-level professional learning

community entitled "Becoming Teacher Educators" (BTE). The three-year study followed

twelve Canadian doctoral students who voluntarily participated in a support group because they

were interested in becoming teacher educators; the BTE program created a context for the

doctoral students to study teacher education under the direction of a teacher educator mentor. The findings show that through participation in the professional learning community, the doctoral students began to develop their identities as teacher educators and teacher-researchers.

While the BTE initiative represents a unique attempt to support and prepare prospective teacher educators, the overall lack of standardized preparation and induction procedures is well documented in the teacher education literature (Goodwin et al., 2014; Kosnik et al., 2011; Murray & Male, 2005). This lack of systematic preparation should not suggest that teacher educators are ineffective in doing the important work of educating future teachers. It does, however, raise concerns about the way that many teacher educators transition into their role. As Korthagen et al. (2005) acknowledge,

> Many good teachers became teacher educators by being 'thrown in at the deep end'. However, their transition may have been more concerned with proficiency in a specific subject and experience as a teacher rather than their knowledge, skills or ability as a teacher of teaching. (p. 110)

Said differently, many teacher educators become teacher educators because of their experience in K-12 education and their subject expertise, even though they may initially lack the necessary knowledge or skills to teach adults or young adults how to become effective teachers.

Teacher education pedagogy. The lack of systematic preparation of teacher educators may be related, in part, to what scholars describe as an "absence of a codified knowledge base for teacher educator preparation" (Goodwin et al., 2014). Others frame this problem as a lack of standard pedagogy for teacher education (Darling-Hammond, 2006; Loughran, 2008; Ritter, 2007). This lack of pedagogy or absence of "codified knowledge" persists despite the extensive work in which teacher educators and researchers have engaged (Cochran-Smith, 2003), such as

authoring the aforementioned *Handbook on Research in Teacher Education*, participating in

professional organizations such as the Association of Teacher Educators, and engaging in

collaborative professional development through groups such as the American Educational

Research Association's special interest group: Self-Study of Teacher Education Practices (S-

STEP). While these endeavors have strengthened the knowledge base related to teacher

education pedagogy (Kosnik et al., 2011), teacher educators largely report that they draw upon

prior experiences and in-practice experimentation to develop their pedagogies of teacher

education (Murray & Male, 2005; Ritter, 2007).

Teacher educators draw upon their experiences to develop their pedagogy of teacher

education in the following ways: a) if teacher educators have prior K-12 teaching experience,

they employ pedagogical strategies that they once used in the K-12 classroom, and b) they call

upon the pedagogical strategies that they remember their own K-12 teachers employing

(Goodwin et al., 2014; Murray, 2005; Timmerman, 2009). Teacher educators who recycle K-12

pedagogical strategies with teacher education students may face an immediate challenge when

they do so because pre-service teachers are young adults, while K-12 students are children or

adolescents. Some scholars indicate that this change in audience requires a shift from "pedagogy

to andragogy" (Martinez, 2008, p. 38), or at the very least, recognition that instructional

approaches should change given the relative maturity of the student population.

Drawing on K-12 teaching experience to inform teacher education pedagogy can also be

challenging because there are domain specific ways that have been found to be effective for

teaching pre-service teachers that differ from teaching the content of K-12 courses (Goodwin et

al., 2014; Goodwin & Kosnik, 2013; Martinez, 2008; Murray & Male, 2005; Ritter, 2007). This

problem is often described in the literature as a transition from first order pedagogy to second

order pedagogy (Murray & Male, 2005), where first order pedagogy refers to the pedagogical understanding that a mathematics teacher might possess to teach high school geometry, while second order pedagogy refers to the type of knowledge that the same mathematics teacher would need to teach pre-service teachers about math pedagogy. Murray and Male (2005) describe this challenge, and note that "in order to achieve the dual focus of teaching about teaching, new teacher educators need to develop further pedagogical knowledge and understanding, appropriate for the second order setting" (p. 137). Effectively, teacher educators need to learn how to teach about teaching.

Shulman's (1986) idea of pedagogical content knowledge can inform this call for second order, domain-specific knowledge about teaching pre-service teachers. Shulman describes pedagogical content knowledge as "the particular form of content knowledge that embodies the aspects of content most germane to its teachability" (p. 9). That is, in addition to discipline-specific content knowledge, teachers should possess a specific type of knowledge related to how that content is effectively taught. For instance, an effective K-12 biology teacher not only knows a great deal about biology (representing content knowledge), but also knows how to teach biology to his 9th grade students (representing pedagogical content knowledge). Yet in the case of teacher education, a teacher educator who draws solely upon his K-12 experience to inform his instruction is missing the pedagogical content knowledge necessary to teach pre-service teachers. In essence, there is no guarantee that the effective 9th grade biology teacher can become an effective teacher educator and teach pre-service teachers how to teach biology or teach the myriad of other pre-service courses that an EPP offers. So while the 9th grade biology teacher may possess pedagogical content knowledge for his K-12 work, he does not necessarily possess pedagogical content knowledge to teach pre-service teachers about teaching.

Instead of drawing on his K-12 biology teaching experience, an effective teacher educator might draw upon his experience as a student and recall how his teacher educators and his K-12 educators taught. Yet this is also likely to present challenges; simply having experienced teacher education classes and K-12 classes as a student does not mean that a person is equipped to teach about teaching. Moreover, while prior experience may be an important resource for the adult learner (Merriam, Caffarella, & Baumgartner, 2007), experience can also serve as a barrier to new learning (Knowles, 1970). In the case of teacher education, knowledge of effective practice, standards, and accountability strategies have evolved since many teacher educators were students, thus their prior experience may no longer be aligned to present conceptions and conditions of learning and teaching (Ball & Forzani, 2009; Cochran-Smith, 2003; Grossman et al., 2009; McDonald, Kazemi, & Kavanagh, 2013). In sum, while prior experience as a student or teacher may serve as a resource for the teacher educator, the accountability-related demands placed on today's pre-service teachers mean that teacher education programs have new challenges that require new instructional approaches for teacher education (Darling-Hammond, 2010b).

An overview of teacher education literature from the last several decades reveals that teacher education pedagogy has shifted in response to changing conceptions of teaching and learning. The literature shows that there has been an alternating focus on theory and practice that has shaped teacher education pedagogy across several decades (Grossman, Kavanagh, & Pupik Dean, 2018; Zeichner, 2012). For instance, in the 1960s and 1970s, teacher educators saw teaching and learning through a behavioral lens, which meant that "teacher educators engaged in a behavioral modification model of professional preparation by identifying discrete competencies for teaching and offering opportunities for novices to practice and repractice [those] discrete

skills" until they were mastered (McDonald, Kazemi, & Kavanagh, 2013, p. 379). During this

period, teacher educators used pedagogical approaches such as microteaching to ensure that pre-

service teachers could "imitate" the work of practicing teachers. In microteaching, pre-service

teachers engage in laboratory practice to learn the "discrete skills" which have been successfully

used in the K-12 environment. By practicing these skills, the prevailing thought was that pre-

service teachers could move from *imitating* teachers to *becoming* teachers (Grossman, 2005).

However, in the more recent past, conceptions of teacher education pedagogy took a

cognitive turn, and thus focused on conceptual understanding and knowledge transmission.

Grossman et al. (2009) describe the types of knowledge that teacher educators worked to

transmit to their pre-service teachers during this time:

> In an effort to highlight teaching as professional work, researchers in the 1980s focused
>
> on the knowledge demands of teaching, arguing that teaching requires a great deal of
>
> knowledge that is specific to the work of teaching. Similarly, the work on teachers'
>
> subject matter knowledge has tried to differentiate the kind of knowledge a well-educated
>
> person might have about a subject from the specialized knowledge of a subject required
>
> for teaching. (p. 273)

In other words, at that time it was assumed that pre-service teachers needed certain types of

knowledge and conceptual understanding, related to both the foundations of education and

specific content knowledge, to be an effective professional. In the years that followed, this

emphasis on knowledge was complemented by an emphasis on reflection (Adler, 1991;

Grossman et al., 2009). This shift indicated an assumption that it is not enough for pre-service

teachers to learn about teaching and know their subject matter; pre-service teachers must also

learn to reflect on that knowledge to be able to make decisions in ways that are consistent with

that knowledge. This cognitive conception of teaching and teacher education and related emphasis on reflection gave rise to pedagogical strategies like the case method (Grossman, 2005). In the case method, pre-service teachers are presented with case examples or dilemmas wherein they apply their knowledge, think pedagogically, and make decisions that can lead to successful educational outcomes.

The emphasis on teacher knowledge and reflection led some teacher educators and researchers to critique the lack of "practice" in teacher education courses; thus, in the last decade, scholars have begun to call for a "return to practice" in teacher education pedagogy (Ball & Forzani, 2009; Forzani, 2014; Grossman et al., 2009; Kennedy, 2016; Mathewson Mitchell & Reid, 2017; McDonald, Kazemi, & Kavanagh, 2013). The emphasis on practice in contemporary teacher education should not be interpreted as a mere pendulum-swing back to the behavioral conceptions of learning in the 1960s and 1970s, as the definition of "practice" is different in both instances. Through the behavioral lens, practice refers to actions and decisions that pre-service teachers imitate in order to "practice" teaching, whereas the more recent call for a practice-centered approach to teacher education sees "practice" as a way to ground pre-service learning in the context of classrooms and schools. For example, contemporary scholars like Ball and Forzani (2009) argue that "practice must be at the core of teachers' preparation," noting that a practice-centered approach to teacher education must entail "close and detailed attention to the work of teaching and the development of ways to train people to do that work effectively" (p. 497). The authors caution, however, that "this [emphasis on practice] does not mean that knowledge and beliefs do not matter but, rather, that the knowledge that counts for practice is that entailed by the work" (p. 503). In essence, scholars today call for a more complex understanding of teacher education pedagogy, wherein practice, knowledge, and reflection

support teacher formation:

> While clearly both [knowledge and reflection] are essential to the work of teaching, we want to argue that teacher education should move away from a curriculum focused on what teachers need to know to a curriculum organized around core practices, in which knowledge, skill, and professional identity are developed in the process of learning to practice. (Grossman et al., 2009, p. 274)

This call suggests that knowledge and reflection are necessary, but not sufficient, for teacher education; pre-service teachers must use their knowledge to enact core practices and then reflect on both their knowledge and their enactment.

In the practice-centered era of teacher education scholarship, researchers call upon teacher educators to help pre-service teachers enact "core practices," which are "high frequency," "high leverage," interdisciplinary, and empirically validated practices that have been shown to correlate with effective teaching and contribute to student achievement (Ball & Forzani, 2009; Forzani, 2014; Grossman, 2018; Grossman et al., 2009; McDonald, Kazemi, & Kavanagh, 2013). Some core practices include: establishing an inclusive classroom culture, facilitating classroom discussion, designing differentiated assessments, scaffolding, and providing feedback. By helping pre-service teachers understand the theory behind each core practice, and then coaching or mentoring them as they begin to enact those practices, scholars believe that teacher educators can both develop effective classroom teachers and begin to bridge the theory-practice divide that has historically plagued pre-service teacher education (Grossman et al., 2009; Kennedy, 2016).

Modeling in Teacher Education Pedagogy

Modeling is an example of a pedagogical strategy that helps teacher educators to equip

pre-service teachers to be able to effectively implement core instructional practices. Teacher

educators serve as a constant model for their pre-service teachers; in this way, teacher educators

have a complex dual role, because "teacher educators…whether intentionally or not, teach their

students as well as teach about teaching" (Korthagen et al., 2005, p. 111). This complex dual

role differs from other professions, i.e. a professor of anatomy trains her students to work as

healthcare clinicians, not professors of anatomy, while a teacher educator prepares her students

to *become* teachers, albeit K-12 teachers and not teacher educators. Since "*how* one teaches is

part and parcel of *what* one teaches" in teacher education (Grossman, 2005, p. 425), any

discussion of practice-centered pedagogies and core practices in teacher education should

include a discussion of teacher educator modeling.

   Theoretical basis for teacher educator modeling. Modeling is widely recognized as an

important aspect of teacher educators' work (Korthagen et al., 2006; McGrew, Alston, & Fogo,

2018; Smith, 2005; The Association for Teacher Educators, 2008). In the United States, The

Association for Teacher Educators (2008) recognizes that modeling effective pedagogies is

essential for teacher educators; indeed, in their *Standards for Teacher Educators,* the first

standard states that accomplished teacher educators model exemplary instruction for their pre-

service teachers. Similarly, by drawing upon research conducted on three teacher education

programs in Australia, Canada, and the Netherlands, Korthagen et al.'s (2006) meta-analysis

identifies effective features of teacher education programs and creates a framework for teacher

education programs which includes the assertion that "learning about teaching is enhanced when

the teaching and learning approaches advocated in the program are *modeled* [emphasis added] by

the teacher educators in their own practice" (p. 1036). Additionally, teacher educators note the

importance of modeling (Aleccia, 2011; Bullock & Christou, 2009; Loughran & Berry, 2003;

Ritter, 2012; White, 2011): as Aleccia (2011) writes, if teacher educators want to bridge "that all-too-common divide between theory and practice, then…teacher educators must model what it means to be an accomplished classroom teacher for their students" (p. 89). In summary, professional organizations, researchers, and teacher educators note the importance of teacher educator modeling in order to facilitate pre-service teacher learning.

In the literature, modeling is defined as enacting or displaying teaching practices and postures to promote effective pre-service teacher learning (Lunenberg et al., 2007). Korthagen et al. (2005) are right to point out that modeling happens "whether intentionally or not" in the pre-service classroom, because pre-service teachers are "apprentices of observation" (Collins, Brown, & Holum, 1991; Lortie, 1975; Rinke, Mawhinney, & Park, 2014; Timmerman, 2009) who learn not only from what their professors teach and intend for them to learn, but how they teach and what they communicate implicitly through their actions. Thus, if teacher educators enact practices that are aligned to state definitions of "effective" instruction, then pre-service teachers have an opportunity to observe and, in some cases, participate in those effective practices. Conversely, when teacher educators enact practices that do not align with state-approved definitions of "effective" instruction, then pre-service teachers are observing and learning from models that are not considered "effective" in the K-12 field. Recognizing that teacher educators are always modeling, it is important for pre-service teachers to observe and even participate in core practices that are considered effective, because 1) modeling facilitates pre-service teacher learning and 2) pre-service teachers will try to obtain certification and begin teaching in the hyper-accountable educational climate described earlier. Essentially, apprentice teachers must observe "effective" instruction if they are to become effective instructors.

While Lortie's (1975) notion of apprenticeship is helpful in understanding the

theoretical basis for modeling, one can also consider how modeling relates to adult learning

theories. Here, experience is often cited as an important resource for adult learners (Burke,

2013; Knowles, 1970; Merriam, Caffarella, & Baumgartner, 2007). In the experiential learning

paradigm, learning both draws upon adults' past experiences and connects to adults' day-to-day

experiences (Merriam, Caffarella, & Baumgartner, 2007). Experiential learning theories also

highlight the importance of active learning in which the learner actively engages with the content

and then reflects on these and prior experiences (Silberman & Auerbach, 2006). This reflection is

key to the experiential learning process; as Kolb (2014) cautions, "truth is not manifest in

experience; it must be inferred by a process of learning that questions preconceptions of direct

experience, tempers the vividness and emotion of experience with critical reflection, and extracts

the correct lessons from the consequences of action" (p. 21). In other words, experience alone is

not enough to promote learning; the learner must question, reflect, and act in response to

experience in order for learning to occur. When teacher educators model effective instructional

practices in their methods or foundations classrooms and encourage pre-service students to

reflect on their observations of these experiences, the apprenticeship and experiential learning

literature (Collins, Brown, & Holum, 1991; Merriam, Caffarella, & Baumgartner, 2007)

indicates that pre-service teachers will be more likely to demonstrate effective instructional

practices in their field placements and future classrooms. Therefore, teacher educators should

seize the opportunity to model effective instructional practices for their pre-service teachers, and

thus help to prepare the next generation of highly effective teachers.

   Evidence related to modeling in teacher education. While modeling is theoretically

described as an essential aspect of teacher education, there is a dearth of empirical literature on

this topic. Lunenberg et al. (2007) point to this gap in the literature, claiming that in their ERIC

database searches of "modelling by teacher educators" and "the teacher as a role model," they discovered that "very little has been written on the subject" (p. 589). Though "very little" is undefined, Appendix A shows that my ERIC search of "teacher educator" and "modeling" led to 371 peer-reviewed articles since 2000. Upon review, only 42 of the 371 articles discussed "modeling" as a pedagogical strategy in teacher education; the remaining articles used the term "modeling" in different ways, i.e. scientific modeling, language modeling, structural equation modeling, video modeling, computer modeling, etc. Eight of the 42 articles focus on teacher educators' modeling of technology, 4 on the teacher educators' modeling of culturally relevant pedagogy, and 34 more broadly on modeling as a pedagogical tool for promoting pre-service teacher learning. Of the 42 studies, 18 were conducted in methods courses, such as social studies (Ritter, 2012), science (Daniel, 2011; Hug & Möller, 2005), mathematics (Ellis, Contreras, & Martínez-Cruz, 2009; Lake, Jones, & Dagli, 2004), and physical education methods courses (Braga & Liversedge, 2017; Lunenburg et al., 2007; Scrabis-Fletcher, Juniu, & Zullo, 2016).

Research on modeling as a pedagogical tool also exists in foundational courses, i.e. philosophy, sociology, history, and psychology of education courses. As shown in Appendix A, 7 of the 42 studies were conducted in foundations courses. In these studies, the researchers tend to examine modeling and another variable, like differentiated instruction. For instance, Ruys, Defruyt, Rots, and Aelterman (2013) explore how one teacher educator modeled differentiated instruction in a Flemish primary education pedagogy class, and conclude that the teacher educator "differentiated instruction rather restrictedly and implicitly, which makes the student teachers not perceive her as a role model for differentiated instruction" (p. 102). Similarly, Santangelo and Tomlinson (2012) surveyed 70 teacher educators across six departments in a university's college of education, including the foundations of education department, and found

that "teacher educators have yet to fully recognize or realize the benefits associated with modeling," especially when it comes to modeling strategies for differentiated instruction (p. 309). In both studies, the teacher educators did not effectively model the practices that they want their pre-service teachers to employ in K-12 classrooms.

Not all studies of modeling in foundations courses indicate a dearth of modeling. Several self-studies conducted in foundations and field experience classes demonstrate that when the teacher educator intentionally models effective instruction, there are positive effects: students in these classes affirm the "positive value" of teacher educator modeling (Hogg & Yates, 2013) and are able "to articulate their learning more clearly" (White, 2011). While teacher educator modeling is perceived positively by teacher candidates and teacher educators, there is less research on teacher educator modeling in foundations classes; thus, teacher educator modeling in foundations courses is an important area of study.

Whether studying teacher educator modeling in methods, foundations, or field education courses, researchers have identified types and degrees or levels, of modeling. For instance, a basic approach to modeling is implicit, while more advanced types of modeling are explicit, and link modeled behavior to pre-service teachers' experience and to educational theory (Bronkhorst, Meijer, Koster, & Vermunt, 2011; Lunenberg et al., 2007). Researchers also tell us that teacher educators can become better at modeling with experience. At the end of a three year study on the development of novice teacher educators' identities, researchers found that the experienced teacher educators "are more able to demonstrate higher-level modelling…by employing both pedagogic reasoning and questioning of their own practice and theory" (McKeon & Harrison, 2010, p. 41). Other researchers point to an intervention that can help teacher educators improve their modeling capacities. For example, Swennen, Lunenberg, and Korthagen (2008)

interviewed teacher educators and video recorded their lessons before offering a workshop to

support teacher educator modeling. After the workshop, the researchers interviewed and

observed the teachers again, and found that "the acquisition of a language" related to modeling

helped teacher educators to overcome problems with modeling (p. 531). This suggests that

teacher educators can improve their modeling abilities with the help of targeted professional

development.

Helping teacher educators model effective instruction and employ higher level modeling

approaches is important, as modeling has been shown to benefit both teacher educators and pre-

service teachers. For example, when conducting focus groups with pre-service physical

education teachers, researchers found that they reported benefiting from classes in which their

professor modeled the teaching strategies that they were expected to use during their field

experiences (Braga & Liversedge, 2017). Similarly, the pre-service teachers enrolled in a class

on assessment identified their professors' modeling of formative and summative assessment

practices as "highly supportive" of their pre-service learning (DeLuca, Chavez, Bellara, & Cao,

2013). In another study, a teacher educator conducted a self-study and found "that the explicit

modelling endeavoured …appeared to have some effect upon the motivation and the

symbolising, forethought, self regulation as well as the self-reflection capabilities of the pre-

service Biology teachers" (Daniel, 2011, p. 211). Daniel (2011) further concluded that studying

her own use of modeling improved her teaching.

Braga and Liversedge (2017), DeLuca et al. (2013), and Daniel (2011) reflect broad

trends in the teacher education literature. A review of the extant literature shows that while

modeling is a challenging strategy for teacher educators to employ (Lunenberg et al., 2007;

Ritter, 2007; Ruys, Defruyt, Rots, & Aelterman, 2013; Santangelo & Tomlinson, 2012), it

benefits both pre-service teachers and teacher educators (Braga & Liversedge, 2017; Daniel, 2011; DeLuca et al., 2013; Ritter, 2012, Scrabis-Fletcher, Juniu, & Zullo, 2016; van den Bos & Brouwer, 2014; White, 2011). However, scholars are correct when observing that the research in this area is limited (Lunenburg et al., 2007). My review of the existing literature also reveals that much of the research on this topic has been conducted outside the U.S, and self-study and action research are the most common research approaches. While much work is yet to be done, specifically in randomized, longitudinal studies, the emerging findings echo Korthagen et al.'s (2006) claim that "learning about teaching is enhanced when the teaching and learning approaches advocated in the program are modeled by the teacher educators in their own practice" (p. 1036).

Literature Review Conclusion

To explore how teacher educators, specifically foundations instructors, understand and enact the modeling of effective instruction in foundations courses, I frame my study around three bodies of research: 1) accountability and the related emphasis on effective instruction, 2) teacher educator preparation and pedagogy, and 3) modeling in teacher education pedagogy. To summarize, the last two decades have been a time of increased accountability for K-12 teachers (Cochran-Smith & Villegas, 2015; Darling-Hammond, 2010b; Ginsberg & Kingston, 2014; Pianta & Kerr, 2014). It is no longer enough to be a "highly qualified" teacher; teachers must now demonstrate that they are "highly effective." This increased accountability in K-12 education parallels an increased attention on the quality of EPPs; as such, EPPs are under pressure to revise their programs and thereby improve future teacher effectiveness (Cochran-Smith & Villegas, 2015; Ginsberg & Kingston, 2014). Within this context, contemporary teacher education pedagogies have begun to emphasize the role of practice, in addition to the role of

knowledge and reflection, in pre-service teacher learning. This has led to increasingly insistent

calls for teacher educators to model core, effective practices (Grossman, 2018).

      While teacher educators and teacher education associations tout the importance of

modeling as a pedagogical strategy to improve teacher education (Aleccia, 2011; Korthagen et

al., 2006; Loughran & Berry, 2005; McGrew, Alston, & Fogo, 2018; The Association of Teacher

Educators, 2008; The National Council for Accreditation of Teacher Education, 2008), and while

initial findings indicate that modeling by teacher educators benefits both teacher educators and

pre-service teachers (Daniel, 2011; Hogg & Yates, 2013; Lunenberg et al., 2007; Ritter, 2012;

White, 2011), the empirical literature concerning modeling is sparse and indicates that modeling

is often underutilized in teacher education. The literature is especially sparse in the context of

foundations courses. In summary, it is here, in the nexus between modeling and notions of

effective instruction that I hope to contribute to the larger conversation on teacher education by

exploring what foundations instructors believe about teacher educator modeling, how they enact

modeling as a pedagogical practice in their foundations courses, and what relationships exist

between their beliefs and practices.

Chapter Three: Methodology

In order to explore teacher educator modeling in foundations courses, this multi-case study draws upon qualitative data collected in a New Jersey Educator Preparation Program. In this study, I am using the term "multi-case study" to describe the inquiry process into teacher educator modeling of effective instruction, which was carried out in the context of four educational foundations classrooms in the spring semester of 2018. The case investigation report is derived from 1) two observations and descriptions of each instructor's classes, and 2) two in-depth, semi-structured interviews conducted pre and post-observation with each of the four foundations instructors. I chose to use the case study approach because, as Merriam (1998) explains, "case studies are particularistic, descriptive, and heuristic" (p. 48), and this allows me to observe a particular facet of teacher education, namely, foundations instructors' beliefs and practices related to the modeling of effective instruction, in a descriptive way. To describe the types of modeling that I observed and referenced in my interviews, I used a modeling typology created by Lunenberg et al. (2017). To describe the types of effective instruction that I observed and referenced in my interviews, I used the descriptors of proficient instruction found in Domain 3 of Danielson's (2013) Framework for Teaching Evaluation Instrument. By using these analytic frameworks and by collecting data from several sources, it is my hope that this multi-case study will help researchers and teacher educators gain greater understanding of instructors' beliefs and practices related to teacher educator modeling of effective instruction, and the relationship between these beliefs and practices, in a purposeful sample of four foundations educators in a New Jersey EPP site.

Study Site

This multi-case study was conducted at Rutgers, The State University of New Jersey. Rutgers describes itself as the largest and most comprehensive higher education institution in the state, with a total enrollment of close to 70,000 graduate and undergraduate students on three campuses in the northern, central, and southern regions of New Jersey (Rutgers, 2017). The central New Jersey campus, New Brunswick, is home to the Rutgers Graduate School of Education (GSE), the central site of this research.

The GSE has been preparing teachers and educational leaders since 1923. As of 2015, there were approximately 1,000 students enrolled in GSE degree and certificate programs (Rutgers GSE, 2017). Currently, the GSE is accredited by the Teacher Education Accreditation Council (TEAC) and offers two tracks for initial teacher preparation: a five-year and a post-baccalaureate graduate certification program. The five-year program is a joint bachelor's and master's degree program for Rutgers-New Brunswick undergraduate students who wish to enroll for one additional year after completing their undergraduate degree to pursue initial teaching certification. The post-baccalaureate program is a master's degree and initial teacher certification program for students who have already completed a bachelor's degree and wish to simultaneously obtain teaching certification and a master's degree in education. Both of the GSE's teacher preparation tracks allow pre-service teachers to meet the state of New Jersey's certification requirements for a wide-array of programs, including pre-school, elementary, secondary, and special education programs.

Since the New Jersey Department of Education (NJDOE) began compiling EPP reports in 2012, the GSE has been a consistent leader for graduate certification and hire rates when compared to other New Jersey EPPs. The most recent data available from the NJDOE (2017)

shows that 229 individuals received a certificate of eligibility with advanced standing (CEAS)

through the GSE in the 2014-2015 academic year. These graduates were most likely to hold a

certificate in Elementary K-6 teaching, followed closely by certificates for Teachers of Students

with Disabilities. The EPP report shows that 169 graduates were employed in the 2016-2017

academic year, which represents a 74% hire rate. This rate is 9% higher than the state average

hire rate of 65% for CEAS graduates (NJDOE, 2017), which, in this metric, sets the GSE apart

as a leader in teacher preparation programs in New Jersey.

In the last few years, the GSE has redesigned the structure and content of their teacher

preparation programs. These changes are in response to 1) the teacher certification reforms

mandated by the DOE, 2) the GSE's mission, and 3) the increasing need for urban education

preparation to support New Jersey students, schools, and communities. For example, recent

DOE (2015a) reforms now mandate that pre-service teachers complete two semesters of clinical

practice, or student teaching, as opposed to the past requirement of one student teaching

semester. As a result, the GSE has worked to systematically increase the clinical experiences

that complement several foundations and methods courses in pre-service teachers' programs.

While the NJDOE has mandated increased field experience hours, the GSE has worked to ensure

that the hours spent in field placements will specifically prepare pre-service teachers for future

work in urban schools. The Rutgers GSE explains its redesign in this way:

> In order to cultivate the unique set of skills for success in our nation's increasingly
>
> diverse schools, GSE Teacher Candidates do their clinical work in school- and
>
> community-based placements in urban partner districts that are part of the GSE-
>
> Community School Partnership Network (GSE-CSPN). (Rutgers GSE, 2017)

In addition to partnering with local urban schools, the GSE has further reformed their teacher

education programs by requiring new courses as part of the initial teacher certification programs,

such as Urban Education 1 & 2 and Teaching Emerging Bilinguals in PK-12 Classrooms 1 & 2.

These courses complement the other foundations and methods courses that precede, accompany,

and follow field experience courses.

Sample

To explore teacher educator modeling, I sought willing and available participants within

the GSE. To obtain my sample, I spoke with the GSE Faculty Director of Teacher Education,

who recommended that I invite the instructors of the newly designed Urban Education 1 & 2

course to participate in the study. I contacted all four instructors before the spring semester

began and invited them to participate in the study. Three of the four Urban Education instructors

agreed to participate in the study, and one instructor declined. To broaden my sample, I invited

two instructors of the co-requisite course, Teaching Emerging Bilinguals in PK-12 Classrooms 1

& 2, to participate in the study; one of the instructors replied and agreed to participate. The final

sample included one Assistant Professor of Urban Teacher Education, one Assistant Professor of

Practice, and two doctoral students who worked as part-time lecturers and teaching assistants.

Because the participants are instructors in the GSE, I took care to protect the participants'

identities. In accordance with the Institutional Review Board guidelines, I have given

pseudonyms to all of the instructors. I have also masked the gender of the instructors to further

protect their identities; in this study, I will refer to all participants using female names.

Data Collection

In keeping with a case study design, multiple sources of data were collected related to the

modeling of effective instruction in foundations classes. These sources include semi-structured

interviews and class observations. The data was analyzed to explore the research questions,

namely 1) what do foundations instructors believe about modeling in an EPP, 2) in what ways do

foundations instructors model effective instructional practices in their foundations courses, and

3) what relationship exists between instructors' beliefs and practices? All of the participants

signed consent forms allowing me to audio record their interviews, and three of the four

instructors signed consent forms allowing me to video record their teaching during my

observations, while the remaining instructor allowed me to audio but not video record when I

was in her classroom.

Interviews. Once I recruited the sample, I scheduled two interviews and two

observations with each participant. To maximize the comfort of the participant, I offered to

conduct the interviews in a place of the interviewee's choosing (Hays & Singh, 2011). All

participants chose to be interviewed somewhere on Rutgers' campus. To record the interviews, I

used a voice-recording app on my iPhone, and I used www.Rev.com to produce interview

transcripts. I conducted the first interview prior to each classroom observation and the second

interview after I observed each instructor teach two classes. In both cases, I sent the instructors a

copy of the semi-structured interview guides, located in Appendix C, prior to the interview so

that they could reflect on the questions and begin to formulate responses prior to the interview.

After each interview, I sent each participant a transcript of her interview. Each participant was

able to suggest clarifications, elaborations, or other revisions in order to represent their

perspectives as faithfully as possible.

The interview guide for the first interview consisted of seven open-ended questions

aimed at attaining descriptions of each instructor's background, experiences as an instructor, and

opinions about teacher education and effective instruction. Though all participants received a

copy of my research questions as part of the consent form, I tried to avoid direct questions about

teacher educator modeling in the first interview so as to not prime the instructors to act

differently during the observations than they normally would have done. Prior to the second

interview, I observed the instructors in their classrooms. I provided the instructors with detailed,

descriptive narratives of my observations and another semi-structured interview guide before

meeting to conduct the second interview.

In the second interview, I designed a nine-question interview guide that asked the

instructors to reflect on teacher educator modeling and their own instructional practice. To

specifically target instructors' perceptions of their modeling practices, I asked interviewees to

read and reflect on Lunenberg et al.'s (2007) modeling typology (see Appendix E). To

specifically target the participants' perceptions of modeling and effective instruction, I asked

interviewees to read and reflect on Domain 3 descriptors of proficient instruction (Danielson,

2013), as defined by The Framework for Teaching Evaluation Instrument (see Appendix D).

Both the modeling typology and the evaluation framework were shared with the interviewees

prior to the interview so that they had time to familiarize themselves with the operational

definitions of "modeling" and "effective instruction." Additionally, I provided each participant

with the modeling typology, the Danielson descriptors, and the observation narratives during the

second interview so that we could reference the documents as we discussed their instructional

practices and their modeling practices.

Observations. In addition to conducting interviews, I observed each participant while

she taught an educational foundations class. I chose to collect data through observations because

they afforded me "the opportunity to gather 'live' data from naturally occurring social situations"

and "look directly at what is taking place *in situ* rather than relying on second-hand accounts"

(Cohen, Manion, & Morrison, 2007, p. 396). While interviews with foundations instructors told me what the instructors believe and think about modeling and effective instruction, I also wanted to describe what foundations instructors actually did, or how they modeled effective instruction in their classes; for this reason, I conducted direct observations. In the newly designed program, all four participants taught their respective classes at the same time on the same evening. This meant that I could observe one instructor per week, so I worked with each participant to determine a mutually agreeable schedule for observations. After each observation, I used my field notes to write an observation narrative that I sent to the participants; I encouraged the instructors to read the observation narrative and suggest clarifications, elaborations, or other revisions in order to capture the lesson as faithfully as possible.

To gather data on foundations instructors' modeling practices, I conducted two observations of each participant during the spring 2018 semester. These observations were semi-structured, which, according to Cohen et al. (2007), is an observational approach in which the researcher "know[s] in advance what he or she is looking for (i.e. pre-ordinate observation) and will have its observation categories worked out in advance" (p. 397). To describe the modeling practices of teacher educators, I used an observation tool based on Lunenberg, et al.'s (2007) description of their study's observation tool. While it would have been preferable to use the same instrument as Lunenberg et al. (2007) for the sake of consistency, the tool was not included in the appendix of their article and Lunenberg no longer has the observation tool (personal communication, April 30, 2016). Thus, I composed an instrument similar to the instrument described in the original study (see Appendix E). My instrument includes the four types of modeling as described by Lunenberg et al. (2007), which are identified in Appendix B. As I do not have access to the original indicators used to illustrate each of the modeling types, I used

descriptions that were presented in the body of Lunenberg et al.'s (2007) article to define the

modeling types in my instrument. These descriptions served as my pre-ordinate observation

categories (Cohen et al., 2007). Using these descriptions, I made interpretive decisions about the

types of modeling that I observed, which I describe in greater detail in Chapter Four. I should

note that the Lunenberg et al. (2007) typology is not a validated tool used to evaluate modeling;

rather, the typology serves as an analytic framework for the researchers and other scholars

(Ritter, 2012; White, 2011) who wish to differentiate between various types of modeling in the

teacher education classroom.

The Lunenberg et al. (2007) modeling typology helped me to describe *how* the

foundations educators modeled, while the Danielson Domain 3: Instruction framework helped

me to describe *what* the foundations educators modeled. I used the Danielson framework to

describe instruction because this framework is the most common state-approved K-12 evaluation

tool in New Jersey, which means that the framework describes the instruction that pre-service

teachers will need to enact once in the field. Not only is the Danielson framework an established,

frequently used evaluation tool across the country, it has also undergone several validation tests,

including those conducted by the Measures of Effective Teaching (MET) Project and the

Consortium on Chicago School Research. While high performance on the framework is

correlated with high student learning outcomes (Danielson, 2012), I did not use the instrument to

measure or evaluate the instructional effectiveness of teacher educators; not only was this

unnecessary given my research focus, the framework has not been validated for this purpose.

Rather, I used the categories of effective instruction to describe the types of instructional practice

that I observed in the foundations classes. This decision is in line with Cochran-Smith et al.'s

(2015) recommendation from a recent review of teacher education literature, which suggests that teacher education researchers should use established data collection instruments.

As Hays and Singh (2012) note, "qualitative data collection and analysis must occur concurrently" (p. 294), which is why I took detailed anecdotal notes about what occurred during the class sessions, paying particular attention to the five elements of Domain 3 in The Framework for Teaching Evaluation Instrument and the four types of modeling described by Lunenberg et al. (2007), which helped me to make interpretive decisions about what data was important for my study. After the class sessions, I reviewed the field notes, wrote my initial reflections in my data collection journal, and composed an observation narrative; I sent this observation narrative to the participants after each observation, which allowed me to review the lesson with the instructor during our second interview so as to 1) prompt reflective discussion with the participant about her instructional practices and 2) check my emergent findings with the participant (Merriam, 2009).

Data Analysis

Merriam (2009) reminds researchers that though they may be inundated with data, data analysis "is the process used to answer [the] research questions" (p. 176). Thus, decisions about what data to analyze and how to analyze the data were made in light of the research questions guiding the study. Given that my research questions relate to foundations instructors' beliefs about modeling effective instruction in teacher education, how teacher educators model effective instruction in foundations courses, and the relationship between those beliefs and practices, I focused my data analysis on educators' beliefs and enactments of modeling and effective instruction as I analyzed transcripts of teacher educator interviews and narratives of classroom observations.

To begin data analysis, I first prepared the data for analysis (Creswell & Plano-Clark, 2007). I uploaded the interview transcriptions and the observation narrative into Dedoose, a qualitative data software package. Next, I began to read through all of the data, writing memos about data that seemed significant given my research questions. Using the five elements of instruction in Danielson's framework and the four modeling types described in Lunenberg et al.'s (2007) study, I began coding the data using the list of initial codes found in Appendix F. A code is a theme, tag, or category that the researcher attaches to relevant text based on the research questions and the data (Hays & Singh, 2012; Merriam, 2009). Coding allowed me to "chunk" or group together meaningful text so that I could explore and begin to see potential relationships to develop themes or categories of text (Hays & Singh, 2012). After the initial round of coding, I reexamined my codebook and revised the original codes in response to findings in the first round of coding (Hays & Singh, 2012). I worked to ensure that the codes were 1) responsive to the purpose of the research, 2) mutually exclusive, and 3) exhaustive, encompassing all relevant data (Merriam, 2009).

After the codebook was finalized and all data had been coded, I exported text according to code (Merriam, 2009). I then read all text associated with particular codes across the data and made memos of relationships, ideas, questions, or pertinent information that I encountered while reading within and across the codes. As Creswell and Plano-Clark (2007) advise, I used memoing to record themes across the codes that began to emerge. These memos were instrumental as I began to compile emergent findings related to the study's research questions.

Credibility

Throughout all phases of the study, I took several steps to establish the credibility of the study. First, as Lauer (2004) cautions, the researcher must ensure that the study is "designed to

answer the type of question asked" (p. 21). In this case, the analyses of interview transcripts and

observation narratives helped me to answer my exploratory questions related to the modeling of

effective instruction in foundations classes. In collecting these two sources of data, I was able to

triangulate data between the sources and across participants, looking for confirming and

disconfirming evidence across data sources (Creswell, 2014; Merriam, 2009). As Lauer notes,

"through triangulation of results, information from different measures in the study, such as

interviews and documents, converges to support an interpretation" (2004, p. 32). In summary,

from the very initial design decisions of the study, I have taken care to ensure that there is a

match between the research questions and methods and that several sources of data would be

triangulated to confirm or disconfirm findings.

Steps to ensure credibility were also taken during the data collection and analysis phase

of the study. First, I arranged for member checks of the observation narratives and interview

transcripts; participants were invited to read and offer their thoughts on these documents and

revise or clarify their remarks. Member checking is a "strategy for maximizing trustworthiness"

(Hays & Singh, 2011, p. 260) because participants are invited to "verify the accuracy of data

analyses" (Lauer, 2004, p. 62) or to review "transcripts…to see if the interview itself is

accurately portrayed" (Brenner, 2006, p. 368). Furthermore, I solicited the participation of

doctoral students in my cohort during my pilot study; my colleagues provided feedback on my

codebook as part of a peer review of my data analysis. Merriam (2009) considers peer review, or

the process wherein the researcher holds "discussions with colleagues regarding the process of

the study, the congruency of emerging findings with raw data, and tentative interpretations," to

be a key strategy for promoting credibility (p. 229). Patton (2002) agrees, considering peer

review to be a form of "triangulating analysts," which lends reliability to the study because the researcher can check decisions, definitions, and interpretations across several researchers.

Researcher Role

Though I have taken careful measures to ensure the credibility of this study, no study is without its biases. As such, it is important for me to consider my role in relation to this study. I am a high school teacher in New Jersey and a doctoral student in the GSE, the site where this study was conducted. Some might believe that my role as both a K-12 teacher and a doctoral student in the GSE could influence the way that I designed the study or the way that I portray certain findings. While the motivation to investigate this study's problem of practice was born out of experiences in my dual role, I do not believe that my role interfered negatively with the study. First, I never studied with or under any of the participants in this study. Secondly, I did not participate in the teacher education program where the study participants taught. I attended a different EPP as an undergraduate student, where I experienced a variety of instructional practices and observed a range of modeling approaches. After I became a K-12 teacher, I joined the GSE as a part-time doctoral student studying teacher leadership and teacher education. Thus, I believe that my position appropriately situated me between the K-12 context and the teacher education context, which allowed me to explore the problem of practice identified in this paper without significant interaction between my role and the conduct of the study.

Conclusion

To conduct my study, I collected and analyzed multiples sources of data from a purposeful sample of four foundations instructors in order to build a rich, descriptive multi-case study. The data allowed me to explore how foundations instructors understand teacher educator modeling and how they enact their beliefs related to the modeling of effective instruction. The

strategies that I used to ensure the trustworthiness of the study, namely, triangulation, member

checking, and peer review, helped me to credibly answer the research questions, which I explore

in the following section.

Chapter Four: Findings

In this section, I will present four cases that illustrate foundations instructors' work in the Rutgers Graduate School of Education (GSE). In each case, I will draw upon interview and observational data to introduce the reader to the instructor by describing the educators' understanding of their identities as they relate to teacher education, a day in the life of the instructors' educational foundations class, and the instructors' reflections on how they model effective instruction to their classes of pre-service teachers. I will then look across all of the cases to address my research questions, namely, a) what do foundations instructors believe about modeling in a teacher education program, b) in what ways do foundations instructors model effective instructional practices in their foundations courses, and c) what is the relationship between instructors' beliefs and practices?

Case 1: Dana

Dana is a doctoral student and part-time lecturer at the GSE who says that she does not consider herself a "teacher educator." This might seem ironic to Dana's students, as her broad, welcoming smile and high-energy approach radiate joy and confidence as she teaches her Urban Education II class. When asked about this apparent paradox, Dana explains that she is an educational historian by training, not a teacher educator. While she believes that she has a strong grasp on the content of her courses, she never imagined herself becoming a teacher educator.

Dana might eschew the term "*teacher* educator," but she does consider herself an "educator." Prior to starting her doctoral program at the GSE, she completed an alternate route certification program and worked as a 7th grade English teacher in a Mid-Atlantic city. She looks back on her time in the 7th grade classroom and feels badly about how she taught. Dana

explains that she struggled to connect theory to practice in her own middle school classroom, which sometimes makes her feel like a "fraud" in front of her class of pre-service teachers.

Though Dana might sometimes feel like a "fraud," she does not appear to be one. Her pre- and post-interview reflections illustrate how committed she is to the work of educating the pre-service teachers in her class. When asked what she and other teacher educators should be doing to build pre-service teacher capacity, Dana explains that teacher educators have a responsibility to "model" for their students, since people tend to "learn through experience." She explains:

> [As a teacher educator], I think you do have to model…that's part of the thing [students are] learning. [As a student,] you're learning how people taught you. You're learning how you felt in that classroom. You're learning, 'Wow, I want to be like that, or I want to do it like that, or I don't want to do it like that, or I don't want to be like that.'

Dana goes on to say that the "hidden curriculum" of her class is pedagogy; while the content of her course is important, she believes that "how [she] teach[es] the content" allows her students to "get the exposure to different methods of teaching."

Dana acknowledges how frustrating it is to see instructors in the GSE teach in ways that she believes are inconsistent with "effective" teaching. She explains, "A lot of times, in my program, I've seen things that just don't make sense from a school of education, where I'm like, educationally speaking...what are you doing?" She jokes that she finds herself using the hashtag *"#bestpractices"* when she sees another instructor teaching in a way that seems inconsistent with the beliefs that the GSE promotes related to learning and teaching. When asked if modeling "best practices" or effective instructional practice is more important in certain teacher education courses, like methods classes or foundations classes, she answered with a resounding "no." She

thinks that modeling effective pedagogical practices should occur in every class, and explains

that modeling has less to do with the content or subject of the course and more to do with the

skills that teachers employ when teaching a class.

In essence, Dana believes that teacher educators have a responsibility to model good

pedagogy for their students. This motivates her to carefully design lessons that promote pre-

service teacher learning. Based on observations and Dana's own description, her classes follow

a general pattern: a hook or engaging introduction, a presentation of guiding questions, a

discussion of the agenda, time for student interaction and discussion, time for students to transfer

their learning to an authentic scenario, and a closing activity. Within this framework, Dana

works to vary the strategies and approaches that she employs so that students can see the myriad

of ways that a teacher can design various aspects of a successful lesson.

During my second observation of her Urban Education II class, Dana began the evening

by welcoming students and asking them about their week. She then began reviewing the class

agenda that she projected on the screen. After reviewing the agenda, students took the first few

minutes of class to collaborate and peer edit a plan for upcoming assignments. After several

minutes, Dana brought the class back together and had student volunteers share out about their

progress. Dana then transitioned to the key topics of that evening's class: testing, special

education, and discipline. First, she asked the students to form small groups and draw something

on the board that represented their understanding of the relationship between these topics. She

prefaced the activity by telling students, "Usually I'll tell you why these three topics are together

[in one class session]," but she explained that she wanted students to try to articulate their *own*

understanding and opinions about the relationships among the evening's topics before she shared

her rationale for combining them. After students collaboratively drew a visual representation of

their understanding, Dana asked each group to explain their drawing to the rest of the class. She attentively asked the students probing questions as they presented and also welcomed input and inquiry from other students in the class.

After students discussed their ideas about the relationships between the topics for the day, Dana explained that the class would watch a short video about no-excuse schools. She then led a discussion that connected the visualization activity and the video. The students quickly began to draw connections and comparisons between the video and their visualizations, and Dana synthesized them once the conversation came to a close. She then stepped aside as she invited that evening's leaders of the "Socratic seminar," or student-led discussion, to facilitate a conversation about the assigned readings related to testing, special education, and discipline. During this time, the students answered the facilitators' questions and articulated their reactions to the assigned readings, all while Dana sat quietly in the circle taking anecdotal notes.

As the discussion ended, Dana thanked the facilitators and participants, and explained that the final activity of the evening would allow the students to apply the readings and what they had learned from the discussion of them to practice. Dana distributed several classroom management scenarios, and asked her students to discuss how the teachers in each scenario should respond to the hypothetical "problems of practice" that they faced in their classrooms. Students then discussed the various scenarios, often drawing on the readings or concepts discussed earlier in class to support their responses.

When Dana reflected on this lesson, she was initially very critical of herself. Drawing upon the description of effective instruction in Danielson's (2013) framework, Dana thought that she was successfully able to communicate with students, engage students in learning, and demonstrate flexibility and responsiveness, though she felt that her discussion techniques and her

assessment strategies were weak. Yet as she reviewed her lesson in tandem with Danielson's

(2013) framework, she realized that her discussion techniques were much more effective than

she had originally thought, since she "stepp[ed] aside when doing so is appropriate,"

"challenge[d] students to justify their thinking," and "employ[ed] a range of strategies to ensure

that most students are heard" during the lesson (Danielson, 2013). Dana also realized that she

employed a range of assessment strategies, albeit informally, throughout her lesson; she

"monitor[ed] student learning" during all class activities, she "regularly used [questions] to

diagnose evidence of learning," and "some students engage[d] in self assessment" at different

points in her lesson. After discussing these components of effective instruction as defined by

Danielson (2013), Dana recognized that she unconsciously teaches in a way that is consistent

with the Danielson framework. She laughed as she reflected on this realization, saying "It's

interesting; it's not like I've looked at this framework and been like, 'Wow, I should be aligning

myself with the Danielson Framework.' I'm kind of like, 'Oh, [I align with Danielson], that's

cool!'" Dana went on to explain that she might be able to model effective instruction more

consciously now that she has used the Danielson framework to reflect on her own teaching.

When reflecting on *how* she normally models effective instruction in her teaching, Dana

reviewed the Lunenberg et al. (2007) typology and described her modeling style as implicit, i.e.

she "walk[s] the talk and act[s] as an example for [her] students." Dana cited examples from the

lesson described above to illustrate the ways in which she "walked the talk" of good teaching.

She struggled to think of ways that she explicitly models, but as she reviewed the Lunenberg et

al. (2007) typology, she realized that she was explicit about her intentions when she explained

that she was going to step aside during the Socratic seminar so that all students could be heard

and so that she could monitor their discussion. She was also explicit when she told students that

she usually explains how essential questions or lesson topics are related, but that in this particular

lesson, she wanted students to articulate their own understandings and make their learning visible

to her and to their peers.

Dana was ultimately able to see how she both implicitly and explicitly modeled several

effective instructional practices according to Lunenberg et al.'s (2007) modeling typology. She

could not describe any instances of Type 3 and Type 4 modeling, i.e. connecting examples of

explicit modeling to the pre-service teachers' own practice or to educational theory. Although

Dana admits that Types 3 and 4 are not common ways for her to model effective instruction, she

believes that they would not be beyond her reach. After discussing the typology, Dana admitted

that she never really thought about modeling in the way that Lunenberg et al. (2007) describe,

but that she could improve her modeling now that she is more aware of specific approaches to

modeling.

Though Dana does not immediately identify with the title of "teacher educator,"

reviewing the Danielson (2013) framework for effective instruction and the Lunenberg (2007)

typology of modeling was a surprising and empowering experience for her that she described in

the following way:

> All of the Danielson stuff and then all this [modeling] stuff, I did it largely
>
> unconsciously. But now being conscious of it, these are things that I could [do]... like
>
> these are not reaches. I could actually do both of those things. I just didn't even think to
>
> do them, or I didn't know that they were things.

In essence, discussing how teacher educators model effective instructional practices made Dana

re-evaluate her work in the pre-service classroom and reconsider her identity. She explains,

"that's what's so interesting about all this too…and this may be about my identity or whatever,

but I'm wondering, 'Well, holy shit. It looks like I'm a teacher.'" As it turns out, Dana is not just any teacher, but a teacher educator who confidently and skillfully models effective instructional practice to her class of pre-service teachers.

Case 2: Jenna

Jenna is a doctoral student, research assistant, and teaching assistant at the GSE. When I met Jenna, she was teaching two courses for pre-service teachers: an online elective and a required Urban Education class. Jenna says that she never set out to be a teacher educator, but when asked if she currently considers herself to be one, she replied, "yeah...most of [my students] think of themselves as becoming teachers, so yeah." In this way, Jenna connects the title of "teacher educator" to her current role; because she teaches many pre-service teachers, she recognizes that she is working as a teacher educator.

Jenna knew that becoming a doctoral student at the GSE would mean that she would teach pre-service teachers, though she says that she "didn't come back to the university to do that." While Jenna did not begin teaching in the GSE out of a desire to become a teacher educator, she explained: "I was never opposed to it. It actually was part of the appeal, too. I'd be lying if I said I totally wasn't interested [in teaching pre-service teachers]. [I] taught for six years before this, so I feel like I have some stake in how teaching is practiced." Indeed, prior to joining the Ph.D. program at Rutgers, she taught at a public high school and at an alternative school for court-involved youth. Jenna believes that this teaching experience colors the way she understands her work as a teacher educator in the GSE.

When asked what the role of a teacher educator or a professor of education should be, Jenna explained that her time in the classroom and her subsequent studies make it difficult for her to answer that question. She clarified:

I myself checked out, left teaching. It's a little disingenuous of me to say, 'I'm here to

make you become good teachers.' Part of my theory of change is like maybe teaching

isn't the best thing to do with one's life if you want some sort of social outcomes.

Even though Jenna thinks that there are other, perhaps better, avenues than teaching for those

who want to achieve social change, she maintains that she has "particular" ideas about what

teacher educators should strive to do with the pre-service teachers seated before them. For

example, Jenna explained:

[Teacher educators] should be educating future practitioners about structures and

institutions that make it hard to teach. We should be educating future teachers about why

teaching is so difficult, why the ideals of becoming a teacher and the ideals of practice

never quite match up with what happens in the classroom.

Consistent with these beliefs, Jenna's goal is to help her pre-service teachers become "change-

makers" or "change-agents." She works towards achieving this end by helping her pre-service

teachers learn about "big idea" topics including structural barriers in education, power dynamics

in the classroom, and teacher-student relationships.

Jenna approaches these topics in her weekly Urban Education II class in the

GSE. According to Jenna, her class generally follows a similar pattern: she begins the session

with "something light," like a game or a collaborative activity, which eases students into the

topics for the night. Then, approximately half of the three-hour session is dedicated to a student-

led Socratic seminar. The class concludes with time for collaborative work around an ongoing

project or a question that Jenna poses related to the week's topic. During one of the Urban

Education II classes that I observed, Jenna began the evening by welcoming students and

pointing to the agenda that she had written on the board; the agenda followed the three-part

pattern that she says is characteristic of her classes. Once she had welcomed students, she asked

if anyone had any questions about the agenda or the course before they began the first activity on

the agenda. After fielding questions about upcoming assignments from several students, she

introduced her opening activity.

In the first activity, students created their own criteria for "good art," and then "graded" a

piece of art that Jenna randomly gave them. After the students had "graded" the art, Jenna asked

the students to reconsider their criteria for "good art." Several students made adjustments to their

criteria at this time. Next, she invited students to find other classmates who had art that was in

some way similar to their own art piece. Then she led a brief discussion about how it felt for the

students to be "grading" and "categorizing" art. After several students shared their thoughts, one

student stated that the art activity was an allegory for the types of sorting and labeling of students

that occur every day in schools. At this point, Jenna took the opportunity to affirm the student's

response, and explained that this art activity was tied to the themes of the day, i.e. segregation,

tracking, testing, and disability.

After introducing students to the themes of the evening through the art activity, Jenna

asked the Socratic seminar facilitators, or student-led discussion leaders, to begin the

conversation. The student facilitators had decided how to set up the room, whether to use the

projector, and which questions to ask their peers. The majority of the ensuing conversation

centered on tracking. This discussion lasted about an hour before Jenna announced that it was

time for students to take a ten-minute break.

Once students returned from the break, Jenna explained that students would work in

small groups to begin considering topics for their final inquiry projects. The students formed

small groups and discussed observations and potential problems from their field experience sites.

Jenna circulated and listened, and then asked for a summary from each group. She nodded and affirmed students as they shared, and on a few occasions, she re-cast what students shared and asked if she was understanding them correctly. After every group had taken a turn, Jenna asked for applause for the evening's Socratic seminar facilitators and announced that class had ended.

Jenna generally felt "good" about this lesson; she initially said that she did not have many additional comments to make about the success or effectiveness of the lesson, since she generally "moves on" after teaching a lesson and begins thinking about her next class. When asked to reflect on her lesson while looking at the Danielson (2013) framework for descriptions of effective instruction, Jenna was initially hesitant to use the framework, as evidenced by her questions: "You want me to assess myself on the Danielson framework? And you want me to not be upset about it?" However, once Jenna understood that she was not "rating" or "assessing" herself, but was just using Danielson's framework as a reference for descriptions of effective instruction, she was more at ease. In fact, looking at the descriptions of effective instruction using the framework allowed Jenna to select several phrases that she believed characterized her instruction: she shared that she "pose[d] questions designed to promote student thinking...stepp[ed] aside when doing so is appropriate...and challenge[d] students to justify their thinking." After she selected these phrases, she was able to expand upon her reflection of the lesson and provide anecdotes from the lesson that supported these descriptors of her teaching.

Jenna also highlighted descriptors that were not necessarily apparent in the lesson described above, but that she believes apply to her teaching. For instance, Jenna used Danielson's (2013) language about "accurate and specific feedback" to explain that her feedback is most direct and precise in response to students' online forum responses, though she believes that she also gives verbal and non-verbal cues in class that function as feedback for students,

even if that feedback is "not as specific as when [she] respond[s] to their writing." She also

expanded upon the Danielson (2013) descriptor that reads: the "teacher persists in seeking

approaches for students who have difficulty learning." She selected this phrase because she

reports working privately with individual students to help improve their learning, although an

observer "may not have seen that in the class [observations]" because Jenna also reported that

she ensures students have access to accommodations in a discreet manner.

Jenna reiterated her discomfort with the framework when she was asked to consider areas

of the Danielson framework that she would like to strengthen in her teaching. As she skimmed

the framework, she commented, "Yeah. Some of these things I don't think are very

important...so, I don't do them very well." She pointed to the part of the rubric that addresses

how teachers use assessment in instruction, and said "I mean, stuff about diagnosing students, it

just sounds ridiculous. 'Diagnose evidence of learning…,' I mean, whatever." Jenna also took

issue with descriptions of element 3C, which states that the lesson has a clearly designed

structure. She read the description and remarked, "I think that's important some of the time, but

I also think that structure can be discarded sometimes for positive effect. Like, freedom to move

around and freedom to experiment on their part is important too, sometimes." After critiquing

this descriptor, Jenna did acknowledge that she has been working on her pacing of lessons, and

she thinks that it is something that she can continue to improve.

After considering her instructional strengths and weaknesses, Jenna considered whether

modeling effective instruction is important in the teacher education classroom. She believes that

modeling is important, because "the worst teacher in the world is somebody who talks a big

game and does the exact opposite." Jenna then used the Lunenberg et al. (2007) typology to

reflect on how she normally "models" effective instruction in her teaching. Jenna initially

described her modeling style as Type 3: "Explicit Modelling & Facilitating Translation to the

Student Teachers' own Practices." She explained that facilitating translation is an "integral part"

of her classes:

> [I] mak[e] sure that the students are drawing from their own insights and experiences,
>
> 'cause I feel like that's the best way for somebody to understand the points that we're
>
> trying to make. They have to be able to flesh it out in their experience, like, feel it in their
>
> bodies.

However, upon further discussion, Jenna realized that Type 3 might not be the best description of

her modeling practice. She explains, "Well, Type 3 has explicit modeling in there, and I don't

necessarily explicitly model." In other words, Jenna does attempt to facilitate "translation"

between her course and her students' experiences in the classroom, but she does not explicitly

model certain instructional practices and then, drawing upon her explicit modeling, facilitate a

translation to students' practice.

Ultimately, Jenna recognized that her modeling style is better described as Type 1, or

implicit modeling, because, as she says: "I think I'm more of an implicit kind of a person."

According to the Lunenberg et al. (2007) typology, implicit modeling means that Jenna "walk[s]

the talk and act[s] as an example for [her] students." Jenna did not cite any examples from the

lesson described above to illustrate how she implicitly models; that is not to say, however, that

she did not implicitly model effective instruction. Observations demonstrated that Jenna

modeled a warm, positive relationship with her students, a participatory and democratic

classroom culture, and an array of discussion techniques that invited student engagement. This

modeling is consistent with Jenna's view of a teacher educator's role: to create a classroom

culture that empowers pre-service teachers to become change agents, regardless of where the

pre-service teachers eventually enact that change-agent role.

Case 3: Nina

Nina is an Assistant Professor of Urban Teacher Education in the GSE who currently

teaches both an urban education class and a methods class for pre-service language arts

teachers. These courses are fitting, because Nina began her career teaching language arts at

public high schools in the New York City area. Nina strongly identifies as a "teacher educator,"

a title that she began to take on when she was working as a K-12 teacher. Working in an urban

public school, she saw herself as a teacher leader who began the work of "teacher education"

through professional development opportunities and collaborative experiences with her

colleagues. She later pursued graduate study in the field of urban education, and now excitedly

embraces her role as both an educator and a teacher educator. She explains,

> I see myself as an educator first and foremost. But then I think being a teacher educator
>
> is an important part of my identity, [because] there are particular considerations that need
>
> to be taken about how to help people who are becoming teachers understand the field and
>
> then be inducted into it. So I would definitely consider myself a teacher educator.

Because Nina understands that there are "particular considerations" that must be taken into

account when teaching pre-service teachers, she is very intentional about how she designs

instructional experiences for her students.

One specific consideration that Nina purposefully addresses in her teaching is

modeling. On the one hand, Nina knows that her job as a foundations instructor is to teach

history and social science related to the field of urban education, but she believes that she must

engage in this work while preparing her students' "toolbox," or instructional repertoire, so that

they can be successful in the classroom. Thus, Nina recognizes that teacher educators have a duty to model certain practices and behaviors for their pre-service teachers. She believes that she shares this sentiment with her colleagues who co-developed the new urban education program, explaining, "there's a recognition that [our course] needs to be practice-based, and that we need to be modeling the kinds of behaviors that we want our teachers to go out and do." In this spirit, Nina is careful to explain that she models certain strategies and behaviors both implicitly and explicitly, and that she tries to connect her explicit modeling to the students' field experiences to enhance the practice-based nature of her course.

When asked what a typical lesson in her Urban Education II class looks like, Nina explained, "I always tell students I try to model again what I would do in a classroom with students. So I always set up a road map for the day." Thus, on a normal night, Nina provides this "road map" by sharing an agenda with the class. After reviewing the agenda, she then draws upon the students' forum posts that were completed prior to class in order to lead a "think, write, pair, and share" reflection activity around the lesson's theme or topic. When possible, she likes to connect these reflective discussions to "real-world applications." Next, Nina tries to create activities or introduce content that is related to the week's readings, always striving to model ways that a class can break down a text, either through protocols or discussion frameworks. Finally, Nina looks to create an opportunity for application: she wants her students to apply what they have discussed or learned in class to an authentic classroom situation. She explained that she plans "something to get [students] thinking and get them planning as if they were actually doing this in their own classrooms...to get them thinking this is what you'll be doing when it's your turn [to teach]." After discussing the application activity, she generally takes questions or

comments from the class, previews the following week's topics or assignments, and dismisses the class.

Nina generally followed the pattern that she outlined above during an observation of her three-hour Urban Education II class. The lesson had five main parts, which she previewed in the agenda: 1) a "weather report" icebreaker introduction, 2) a discussion about the Parkland school shooting and how that current event related to teacher and parent responsibilities, 3) a collaborative gallery walk that centered on the Epstein Parental Involvement framework, 4) a chance to plan an imaginary hour-long parent meeting for a local school, and 5) time for students to work on their end-of-course action research project.

Nina's icebreaker welcomed students into the class and allowed every student to share their feelings about their field experience with their peers, which fostered a supportive, participatory classroom community. When Nina transitioned from the icebreaker to a conversation about the Parkland school shooting, every student actively participated. She ensured that everyone participated by projecting an image and an article about the current event on the board, and then asked students to think, write, pair, and share about a quotation from the article. Nina walked around the room reading students' quick-write responses and listening to their pair discussions. As she circulated, she chose two students who would share with the large group once all students had finished writing and discussing their thoughts with a partner. Nina explained to the class that she had already asked two people to share with the whole group, a strategy that she uses to ensure certain topics or perspectives are covered, and then she allowed other volunteers to share; every student in the class shared or commented on a peers' response during this large group activity. Nina then used the think-write-pair-and-share activity to ask students how the pre-assigned readings about school and community relationships were related

to the tragic events in Parkland. This transition allowed her to hone in on the lesson's central

themes of school and community partnerships.

Following this transition, Nina distributed both the Joyce Epstein Framework for Parental

Involvement and a text-based discussion protocol. Nina divided the class into small groups and

circulated as students began reading the framework and working through the protocol. She then

distributed chart paper, and had groups use their pre-assigned readings and classroom

discussions to help them "re-write" some of the statements made in the Epstein framework that

reflected a deficit perspective in order to take more of a community cultural wealth perspective.

Students then walked around the room in a gallery-walk fashion reading the other groups' "re-

written" statements about parental involvement. Once students had walked around the room,

Nina helped the students' to debrief, encouraging them to see the difference that certain semantic

changes made.

Next, Nina moved on to her penultimate activity; she asked students to move into their

field placement group and draw upon the gallery walk activity to create an engaging, culturally

responsive plan for a hypothetical 60-minute parent event at their respective schools. Again,

Nina circulated throughout the room, asking various groups about the decisions that they were

making, and encouraging groups to incorporate certain ideas discussed earlier in class. Once

each group had designed the event, she encouraged the groups to use the remaining class time to

discuss and plan their end-of-course action research project. When class ended, Nina said

goodnight to her students, and volunteered to remain after class for 10 minutes to answer

individual questions, an offer that many students presumably appreciated, as evidenced by the

several students who stayed and spoke to Nina at length about their projects.

When Nina reflected on this lesson, she reported feeling that students met the objectives that she set out for them: by the end of class, students better understood the importance of creating healthy and strong school-community relationships, and students learned some ways that they could work to establish those relationships in their current and future schools. Like Jenna, Nina was at first hesitant when asked what traits of effective instruction were demonstrated in her lesson, as she "get[s] very sensitive about that word 'effective' because of the way it's very politicized." As she explained,

> I think about effectiveness as the extent that it's responsive and relevant to the community that you're teaching in as opposed to whether or not you've delivered standards-based content according to what the state of New Jersey says is in the [specific content] standards. That's a part of it, but if it's not made relevant and if it's not serving the community, then that's breaking down the entire contract of what strong teaching and learning is about.

Having defined what "effectiveness" is in her mind, Nina then used the Danielson (2013) descriptors of effective instruction to highlight strengths of her teaching. Nina read through the descriptors of all elements, noting that she feels particularly good about element 3A and 3C: the way that she communicates with students and engages students in learning. She pointed to examples from her lessons that demonstrate those strengths, e.g. using an agenda and meta-commentary to communicate her intentions and rationales with students and trying to promote student engagement by designing activities where she speaks less and her students speak more. Nina also explained that she and her colleagues have needed to demonstrate flexibility and responsiveness in this course (element 3E), because it is new and there are many elements,

including readings, assessment criteria, and field placement sites, that must be adjusted as they encounter unexpected difficulties consistent with launching a new course.

Nina did not originally identify elements 3B: Using Questioning and Discussion Techniques and 3D: Using Assessment in Instruction as strengths, but upon reflection, she did not say that they are areas for improvement either. She explained that she does not need to plan questions as intentionally as she would if she were teaching K-12, since her graduate students wrestle with online forum questions before class and generally bring their own questions and ideas to class. However, Nina adds that she does structure classroom discussion by using discussion protocols to ensure cognitive rigor and equity in student participation. Similarly, Nina does not plan "formative assessments" in the same way that she would if she were teaching a K-12 class, though she does monitor student learning through online forum posts, classroom discussions, and classroom learning activities. If Nina could strengthen any part of her teaching, she says that she would work on element 3E, because "being able to be responsive to all of [my students] is always a struggle." In Nina's mind, this means being responsive to each student's needs, interests, and experiences, both as learners and pre-service teachers in specific field placements. This desire to be more responsive to students' needs connects with Nina's overall view of effective instruction. From her perspective, instruction is "effective" insofar as it is "responsive and relevant to the community that [an instructor is] teaching."

When it comes to *how* Nina models effective instruction to her students, Nina is very intentional. She explained,

> I try to be explicit that I'm not going to lecture. If I don't want you to be a teacher that lectures, then even though [...] it's different than a high school class and you're in a different developmental level, I still can't just lecture at you the whole time if I'm a

teacher educator. [...] I'm not going to stray away from the ideals of progressive

education if that's what I believe in. And if I believe that [K-12] students should be

constructing knowledge in the classroom, then I'm going to show my university students

that they're going to construct knowledge in a similar way. It's just going to be brought up

to scale [for a university student].

With this in mind, Nina is careful to design her lessons so that she exposes her students to the

strategies and approaches that students will need for their "toolbox" as future teachers. In this

way, she implicitly models, or as the Lunenberg et al. (2007) typology describes it, she "walk[s]

the talk and act[s] as an example for [her] students."

Yet Nina does not just implicitly model; when shown the Lunenberg et al. (2007)

modeling typology, Nina explained how she practices Modeling Types 2 (explicit modeling) and

3 (explicit modeling while facilitating a translation to student teachers' own practices) as

well. When reflecting on how she explicitly models, Nina said:

I try to tell students when I'm being meta. ...Like 'Now we're going to do a strategy. I'll

use a strategy with you that I think that you could take back to your classroom. But we

are going to be using it with the content that we're using for our graduate level class and

I'm going to treat you slightly differently,' but I always say 'think about the strategy.' [I

also tell my students], 'think about the way we just looked at this text or think about why

I didn't just cold call anyone. Think about why I had you share with a partner first

because that's what I would do in the classroom.'

In other words, Nina is careful to not only implicitly model effective strategies and approaches in

her teacher education classroom, she is also careful to address the practices and behaviors that

she models in a "meta" or explicit way. She calls attention to the effective practices and

behaviors because she wants students to "take what they see, and then float above themselves, and see why this is happening" so that they can be prepared to enact those practices and beliefs in their own classrooms.

To facilitate that transition, Nina connects her explicit modeling to the pre-service teachers' field experiences. For example, when Nina employed the think, write, pair, and share strategy in her class, she explained why it would be good to use in the pre-service teachers' field education classrooms: the strategy encourages active engagement by all students, and gives students time to collect their thoughts cognitively and in writing before interacting with their peers and articulating their ideas to another interlocutor. In another instance, Nina thanked students for being on time to class, and explained how the norm of both the teacher and the students starting class on time is beneficial in the K-12 classroom, since it communicates respect for all parties and high expectations for active participation in the learning process. Nina also made explicit changes to the seating arrangements and groupings of students in her class and asked her pre-service teachers to tell her about the classroom arrangements of the classes they were observing in their field placement sites. These examples show how Nina not only explicitly modeled beliefs and practices related to effective instruction, but also worked to draw connections between her own modeling and the field experiences of her students.

Nina acknowledged that Modeling Type 4: Connecting Exemplary Behavior with Theory, is something that is important to her, but that she does not employ it as often as she would like. She explained,

> I'm trying to get [the students] to move towards practices and protocols that are
>
> instantiating these theories in practice. But telling them that doing this protocol
>
> and having them do this text thing is going to be a way for them to think about

critical literacy, making that connection more explicit is something I'd like to

keep working on so they could actually see that these readings are there for a

reason.

In essence, Nina wants her students to think about the pedagogical decisions that she makes, and

understand *why* she made those decisions from a theoretical perspective. Nina believes that this

is important, because, as she said, "if we don't have a theory behind our practice then we just

replicate what we see and we wind up replicating things that are not justice-oriented or equity-

oriented." Nina is careful to model justice-oriented practices for her students, but in the future,

she hopes to continue to hone her practice by helping students make the connection between

what she models and the theories that drive her to model the practices and beliefs that she enacts.

In closing, Nina seemed proud of her work as a teacher educator and anxious to continue

growing as a professional. She knows that her work and her particular role play an important part

in pre-service teachers' professional development journeys. In fact, she says that she feels like a

"role model" for future teachers. She explained, "being a role model like that, you know, it

struck me again of how that's an important part of what I'm here for. To show [students] that we

don't have to do things the way that it's been done." Indeed, Nina works hard to explicitly

model equity-oriented teaching practices that pre-service teachers can carry forward into

tomorrow's classrooms, a task which seems to bring her much joy and satisfaction.

Case 4: Angela

Angela is an Assistant Professor of Practice in Language Education who currently

teaches a section of the GSE's new two-part Teaching Emerging Bilinguals in PK-12

Classrooms course, which is paired with the two-part Urban Education course. In addition to

teaching the Emerging Bilinguals class, she teaches both an online course on academic language

in various content areas and a community-based service-learning course in partnership with a local K-12 district. Previously, Angela had only taught language education courses at the GSE; this past semester was the first time that she worked exclusively with students from other content areas within the GSE. Though this was certainly a change for Angela, she laughed as she explained that she is accustomed to juggling multiple responsibilities and teaching to various audiences. In fact, she started her career as a foreign language teacher, working at various times with middle school students, college students, immigrant adults, and private companies. To Angela, teaching the two-part Teaching Emerging Bilinguals course represents a new and exciting challenge.

When asked to describe her current role in the GSE, Angela did not immediately use the term "teacher educator" to describe herself. Instead, she used the term "language educator" and her professional title, "professor of practice." When asked if she considers herself a teacher educator, however, she said "Sure...I think it's a good description." She went on to say that she likes the term "teacher educator," because it "places teachers first in the title" and it places emphasis on "educating rather than training."

Angela echoed Jenna and Nina's hesitation when asked what makes a teacher "effective." Angela preferred to use the word "successful" over the word "effective," because when she hears the word "effective," she thinks of something like an appliance, not a person. But Angela says that she wants her students to become successful teachers, and she has many ideas about what a "successful" teacher looks like. She explains:

> Well the first thing that comes to mind to me is the sort of dispositional…I think they
> should be caring, they should be good listeners, because I think sometimes listening is a
> lot more powerful than talking…I think they should be passionate, I think that will take

them a long way…and then of course there are some additional bonuses, so to me it's

important to be a global citizen, to have full awareness of diversity, to have strong ethical

commitments.

Angela went on to explain that these dispositions, i.e. care, active listening, passion, global

awareness and ethics, are also important for teacher educators.

In addition to demonstrating these dispositions, Angela believes that the primary role of

teacher educators should be to mediate or facilitate discussion. This belief seems to undergird

her description of a typical day in one of her own classes, which she describes as "a lot of

conversation" and "very informal." She explains that her Teaching Emerging Bilinguals class is

very small and personal, and students normally sit in a circle as they participate in discussions

related to the week's topic. But Angela believes that to help her pre-service teachers become

successful teachers, she must go beyond the role of facilitator or mediator. Angela believes that

in her role, she must strive "to convey care" to her students. As she explains, "you can model

[care], which I try to do and it's not too hard."

The belief that teacher educators should model care may explain why a typical day in

Angela's class begins with a discussion about the pre-service teachers' week. In these

discussions, Angela says that she allows her students to "rejoice" in their learning and discuss

"new accountability systems and assessment systems" that she describes as "overwhelming."

For instance, she feels that students need a place to ask questions related to the edTPA

requirements and how they relate to the course; in these discussions, Angela tries to model care

and empower her students by creating a "protected environment…in the sense that that's where

[students] can try things out without fear." In summary, Angela characterizes her classes as

discussion-oriented experiences where she mediates conversation and models care for her students.

This description of a typical class is consistent with an observation of Angela's three-hour Teaching Emerging Bilinguals II class. After welcoming students into the room, Angela allotted 38 minutes to asking her ten students about their weeks, their experiences in their respective field placements, and their questions regarding upcoming assessments. During this time, two-thirds of the class asked about an upcoming assignment that was formatted like an item they would later have to submit for their edTPA portfolios. Angela listened to students' stories and questions, often asking follow-up questions. She also suggested a modification to the upcoming edTPA-related assignment to make it less overwhelming and more relevant to the methods class that they were taking during the same semester.

After the welcome conversation, Angela moved into the first part of her lesson: a review of the language amplifications in a middle school lesson plan that students had studied the previous week. At Angela's request, some students shared about the language amplifications that they might use in their own lessons. This conversation prompted Angela to ask her students what they believe about "translanguaging," or using languages other than English at certain points during a lesson to support comprehension. A short conversation about "translanguaging" ensued, where a diversity of opinions were presented. Angela used the opportunity to clarify misconceptions and ask follow-up questions.

For the remainder of the class, Angela and the students worked on a middle school lesson plan. Angela asked if the students had read the pre-assigned lesson plan, and the majority of students acknowledged that they had not read it. Angela paused and gave students several minutes to silently review the lesson plan. She also encouraged them to try the online simulation

that was an integral part of the middle school lesson plan. As students visited the simulation

website, conversation erupted and students seemed animated as they discussed the design and

results of the simulation.

After allowing time for the impromptu reading of the lesson plan and interaction with the

simulator, Angela facilitated an hour and twenty-minute conversation on the language functions

and objectives needed for the lesson. During this time, Angela tended to speak directly to one

student at a time while the rest of the students were silent, though at one point a student asked if

he could draw something on the board to illustrate an idea for his peers. This began a short

debate in which four students considered the use of appropriate, content-specific resources in the

classroom. Angela listened to the conversation and asked probing questions to clarify the

students' remarks. As the end of the period neared, Angela thanked the students for participating

and reviewed her plans for the final class of the semester the following week.

When Angela considered whether or not the students met the objective for the evening,

she said: "Not yet." She went on to acknowledge that students "[got] better at formulating

language objectives, but [they're] not there…it would take more [time]." She did think that

students walked away from the class with a stronger "understanding of the flow" of a unit in

relation to linguistic and cultural demands for emerging bilinguals in the classroom, and she was

anxious to see how the students would demonstrate the growth that she had been trying to

cultivate all semester in the final assessment.

When asked to reflect on the elements of effective instructional practice in her lesson

using language from the Danielson framework, Angela discussed what she perceived to be her

strengths and areas for improvement. Angela identified element 3A: Communicating with

Students, as an area of strength, explaining, "I try to model being a sympathetic interlocutor, and

answering questions. I try to give space to [students'] own inquiries." This was evident when

Angela spent a significant block of time at the beginning of her class checking in with them.

Angela also indicated that element 3B: Using Questioning and Discussion Techniques,

was a strength that she demonstrated in her lesson. Despite identifying element 3B as a strength,

she acknowledged how challenging it can be to facilitate class discussions. She shared,

> I think I did use some low-level questions [during class discussion], although we did have
>
> a conversation about open-ended discussions and how they're very difficult to orchestrate
>
> and to put together. That I know, that took me a long time to actually get there, as an
>
> instructor.

During the observation, the challenge of orchestrating open-ended discussions was apparent. For

instance, student-to-student discussion was rather limited during the observation, and when

students did participate, they generally responded to Angela or spoke directly to her, not to their

peers. Angela also noted that she has been struggling with a particular student in her class that

"absolutely never speaks," along with a few other students who are seemingly reticent to actively

participate. Reflecting on this element of effective instruction led her to say, "I think I should

definitely work on [all students actively participating]." When asked if she wanted to work on

any other element, Angela noted that element 3D: Using Assessment in Instruction is something

that she did not necessarily demonstrate in the observation. For example, Angela read the

Danielson description of element 3D and remarked that students did "not necessarily engage in a

self-assessment," though she believes that she assesses student work outside of class and

provides feedback to students through email, digital assignments, and office hours.

After considering her instructional strengths and areas for improvement using the

Danielson framework, Angela used the Lunenberg et al. (2007) typology to discuss how she

models effective or "successful" instructional practice in her classroom. When asked which of

the modeling types best describes her modeling practice, Angela responded, "Oh, implicit, I

think. For sure." Angela said that modeling the dispositions of care, passion, and global

awareness were important to her, and she implicitly modeled those dispositions throughout her

class, as demonstrated by how she started the class. She also implicitly modeled some traits of

effective instruction as outlined by Danielson; for example, Angela adjusted the final assignment

requirements in response to student concerns in the beginning of class, showing that she is

flexible and responsible to student needs (element 3E).

　　　When asked about the other modeling types in Lunenberg et al.'s (2007) typology,

Angela shared that explicit modeling is less common in her practice, unless she is intentionally

trying to model language related to the edTPA, in which case "there's some meta there." Like

Jenna, Angela shared that she often asks students about their field experience, but she does not

connect her modeled behaviors to the students' experiences in the field (Modeling Type 3). Like

Nina, Angela also shared that she does not regularly practice Modeling Type 4: Connecting

Exemplary Behavior with Theory. Angela explained that she has connected modeled behavior to

theory in other, more theoretical classes, but that she would like to do so more often in classes

like the one I observed.

　　　Angela believes that "modeling is certainly great," but she does not think that teacher

educator modeling is a sufficient condition for developing prospective teachers. She explained,

> I'm happy to model, 'What should you say? How would you write it down in your edTPA
>
> thing?' Modeling is great, but there needs to be action on [the students'] part, too. And
>
> opportunities to do something and to critically reflect on those desired practices.

Here, Angela reveals that she sees teacher educator modeling in a very concrete way; in other

words, teacher educators can show students what to say and what to write on their state-required

assessments. But Angela also adds an important caveat to the notion of teacher educator

modeling; she does not believe that students can just passively experience a teacher educator's

modeled behavior or disposition. According to Angela, pre-service teachers need to have the

chance to reflect on what they experience and then act upon that reflection. Angela and her

colleagues hope that the newly designed Urban Education and Emerging Bilinguals courses can

help the pre-service teachers to do just that in their in their current field placements and beyond,

when they become K-12 teachers.

Teacher Educator Beliefs about Modeling

I will now look across all of the cases to address my first research question, namely:

What do foundations instructors believe about modeling in a teacher education program?

Essentially, the instructors articulated a range of beliefs related to teacher educator modeling

during the in-depth interviews. When asked, the four participants spoke positively about teacher

educator modeling because they believe that it facilitates pre-service teacher learning. However,

the participants articulated different understandings of the term.

All of the participants agree that teacher educator modeling is beneficial for

students. This is evidenced by the instructors' favorable reactions to an excerpt about teacher

educator modeling from the first standard of The Association for Teacher Educators' (2008)

standards for teacher educators, which I gave to participants prior to the second interview and

discussed with them during the second interview: "The effective modeling of desired practices is

at the heart of successful teacher education programs at pre-service and in-service levels." For

instance, Nina reacted to the ATE standard, saying "I definitely agree that students need to see

models of different strategies that they can transfer into their classroom." Later, Nina explained

why she thinks that students need to "see models," claiming "that's the way we all learn." Jenna

echoed a similar sentiment, stating,

> I think it's really important to model the kind of teaching you want your students to
>
> eventually do.[You should practice] the kind of education that you feel is important to
>
> pass on. The best way to convince somebody of something or to teach somebody about
>
> something is to just literally do it.

Here, Jenna picks up on Nina's claim that modeling is "the way we all learn," and alludes to the

experiential nature of learning, or the idea that humans learn by reflecting on their experiences

(Knowles, 1970; Kolb, 2014). Like Nina, Jenna uses the experiential nature of learning as

support for her positive view of teacher educator modeling. Dana also locates her positive view

of modeling in a larger conversation about experiential learning, explaining:

> I think [teacher educators] do have to model...that's part of the thing [students] are
>
> learning. [As students], you're learning how people taught you. You're learning how you
>
> felt in that classroom. You're learning 'Wow, I want to be like that, or I want to do it like
>
> that, or I don't want to do it like that, or I don't want to be like that.'

Dana, Jenna, and Nina all spoke about pre-service students *experiencing* strategies, philosophies,

and approaches to education through teacher educator modeling, but Angela when a step further,

claiming that "modeling is great, but there needs to be action on [the students'] part, too...and

opportunities to do something and to critically reflect on those desired practices [that have been

modeled]." For Angela, teacher educator modeling can be beneficial, but for the experience to be

effective, it must be supported by student reflection and student action. This emphasis on

experience, reflection, and action is key to the experiential learning process (Knowles, 1970;

Kolb, 2014). In brief, all of the teacher educators in this case study viewed teacher educator

modeling in favorable terms, and couched their beliefs in a larger conversation about experiential

learning and teacher education pedagogy.

Though instructors in these cases held positive views of teacher educator modeling, they

articulated differing conceptions of what teacher educator modeling actually is. This finding is

consistent with the larger body of literature on pre-service teacher education, which suggests that

the field does not articulate a consistent, "codified knowledge base" related to teacher education

pedagogy (Goodwin et al., 2014). As such, definitions of "teacher educator modeling" varied

across participants. Some instructors described teacher educator modeling in a limited, technical

way, indicating that pre-service teachers should imitate or reproduce their instructors' modeling.

Other instructors saw teacher educator modeling more broadly, referring to modeling as a

pedagogical stance that united theory and practice in the pre-service classroom. These

instructors structured their classes in such a way that their pedagogical decisions modeled both

the thinking and practices that pre-service teachers would need to enact in their future

classrooms. Finally, other instructors approached the concept of modeling from a dispositional

perspective, focusing on the attitudes and beliefs that teacher educators enacted for their pre-

service teachers. The following section illustrates how the participants view teacher educator

modeling.

Modeling as a technical demonstration. One way that instructors describe teacher

educator modeling is as a technical demonstration for pre-service teachers to imitate. Though

there are very few examples of this view of modeling in the four cases presented here, Angela

expresses this understanding of modeling when she says "I'm happy to model, 'What should you

say? How would you write it down in your edTPA thing?' I'm happy to model that or help

[students] acquire the discourse of edTPA." In this instance, Angela demonstrates that she thinks

of teacher educator modeling as a very specific practice wherein she shows her students how to

do something that they will need to later enact in their pre-service or in-service work, i.e. write

an objective for the edTPA assessment. Angela does not describe teacher educator modeling as

broadly as some of the other instructors. This is evident when she says, "I try to model. […] And

I did more [modeling] at the beginning of the [course]... when we did the think aloud, and we

tried [other] instructional strategies [for] emerging bilinguals." Here, Angela describes modeling

as a demonstration that she enacted at certain points in her course, not as a teaching practice that

informs how she approaches her day-to-day planning.

       Modeling instructional practices and pedagogical thinking. Another way that

instructors in this study understand modeling involves bringing together instructional strategies

and pedagogical thinking. Nina and Dana both articulate this conception of modeling. As Nina

explains,

> There's this push in teacher education to be very practical, which I completely understand
>
> because teacher candidates need to build their toolbox, their toolkit of 'what do I do in
>
> front of a group of kids?' So I understand and appreciate the need for the practical 'how
>
> do we make this happen?' But I worry sometimes that can be done at the expense of
>
> taking a step back and thinking about the philosophy, the purpose, the context for why we
>
> do what we do.

Here, Nina explains how she contextualizes the strategies that she models with the knowledge of

why those strategies should be part of a teacher's toolkit. Dana talks about modeling in a similar

way; she believes that teacher educator modeling can help pre-service teachers build a "toolkit"

or repertoire of skills that they will need for their work in their future classrooms. She explains,

"when I think of modeling, I think of skills. I don't think of content." That is not to say that the

content of her Urban Education class is unimportant to Dana; rather, when it comes to modeling,

she believes that teacher educators must model skills *while* addressing content, so that pre-

service teachers can learn to think like teachers. In other words, Dana believes that by exposing

pre-service teachers to different methods of teaching, the pre-service teachers will remember

their experiences with various teaching methods and call upon those experiences when they are

making decisions in their own classrooms. She explains: "that's how I've learned, […] by being

in places and seeing, 'oh wow, that worked' and then [adopting that strategy]."

Nina and Dana do not discuss modeling strategies in the same way that Angela does;

Angela talks about modeling discrete, technical practices for pre-service teachers to replicate,

like teaching students how to write objectives for the edTPA assessment. Nina and Dana, on the

other hand, see the entire design of their classes as a pedagogical model. Dana conceives of

teacher educator modeling as a broad pedagogical stance wherein "*how* [she] teaches the

content" is the "hidden curriculum of what [she is] teaching." Nina echoes that sentiment,

explaining,

> I always tell [my pre-service teachers that] I try to model again what I would do in a
>
> classroom with students. So I always set up a road map for the day and the beginning of
>
> the whole class. We set norms just like I would do with a group of new students. I explain
>
> why we do the things that we do. But a typical day...I'll lay out the agenda for the day.
>
> Usually we'll do some kind of think, write, pair, share activity. I've taken what they've
>
> done in their readings, because they have to do the forum post responses, [and] I like to
>
> see ahead of time, and I tell them, 'I would do this with my students as well.' If you get a
>
> sense of what they're thinking and what their questions are before class starts, I can then

> make sure that my class instruction is going to be geared toward not the stuff they clearly
>
> already get, but something they're struggling with, so I make it a question for reflection
>
> that is based on issues that I saw in their forums. We share out. We get something on the
>
> table about whatever the topic is for that week. And then I try to create activities or
>
> introduce content that is a real-world application of what we saw in the readings.

Here, Nina explains how the design of her lesson, the activities that she develops, and the

pedagogical moves that she makes all serve as a model for her pre-service students. In essence,

she, like Dana, tries to explicitly model pedagogical thinking for her pre-service students while

seeking to teach her students the content related to her urban education course.

Modeling dispositions. Instructors also describe modeling as the demonstration of

dispositions that are necessary for the work of teaching. Departing from the technical description

of modeling discussed earlier, Angela also expressed a desire to model the dispositions that she

wants her students to enact in their future classrooms. For example, she said,

> I try to model being a sympathetic interlocutor...it's okay to not be right all the time or to
>
> not get it, or to need [help]. I think that's a dispositional thing, less of an instructional
>
> thing, but that's so important as teachers for us to model.

Angela's desire to model certain dispositions is not surprising, because when asked what makes

a K-12 teacher successful, Angela said, "the first thing that comes to mind to me [are] sort of

dispositional [traits]." She went on to explain that all successful teachers, both K-12 and beyond,

should demonstrate certain dispositions in their classrooms, i.e. teachers "should be caring, they

should be good listeners, [...] passionate, [...because it is] important to be a global citizen, to have

full awareness of diversity, [and] to have strong ethical commitments." Thus, because Angela

believes that her pre-service teachers should exhibit these traits as future K-12 teachers, Angela

tries to model these dispositions for her students in class.

Angela is not alone in approaching teacher educator modeling from a dispositional

orientation. Much like Angela, Jenna describes an effective teacher as one who is able to create

a "connection" or "relationship" with students, share "power" with students, and demand that

students "rise and do something fantastic and insightful." To empower pre-service teachers so

that they exhibit these dispositions, Jenna believes that a teacher educator must model these

dispositions. In her mind, "the worst teacher [educator] in the world is somebody who talks a

big game and does the exact opposite." This idea of "walking the talk" is important to Jenna,

who explains,

> It doesn't matter how eloquently I say [something] or how robust the readings are that I
>
> give [the pre-service teachers], or even if I were to mastermind some kind of an
>
> experiment or simulation of these phenomena in the classroom. But really I've found the
>
> only thing that can alter somebody's preconceptions based on their own experiences is
>
> experiencing it a different way some other time.

Thus, Jenna strives to create a classroom environment where her students *experience* education

differently than they may have in the past: she wants students to relate to her, share power with

her, and sense that she has high expectations for them. In creating this type of classroom,

students will observe the dispositions that Jenna models, and "be able to flesh it out in their

experience," which is "the best way for somebody to understand the points that [teacher

educators are] trying to make."

In summary, the participants in these cases described "teacher educator modeling" in

varied ways. Angela, for example, defined teacher educator modeling in a very limited, technical

way, i.e. modeling how to write an objective for the edTPA portfolio. Dana and Nina spoke

about modeling more broadly, bringing together the practices and pedagogical thinking that pre-

service teachers need to enact in their future classrooms. Jenna focused on the dispositions that

she wants her students to embody. Like Jenna, Angela also described modeling from a

dispositional perspective, focusing on the attitudes and beliefs that teacher educators can model

for their class of pre-service teachers. In the latter part of this chapter, I will revisit these beliefs

to explore how they relate to the instructors' modeling practices.

Teacher Educator Practices Related to Modeling

Having analyzed the semi-structured interviews to understand what participants believe

about teacher educator modeling, I will now look across all of the cases to address my secondary

research question, namely: in what ways do foundations instructors model effective instructional

practices in their foundations courses? In other words, I will turn from what teacher educators

believe to how they *practice*. To do so, I will first analyze the observation narratives that I wrote

and shared with each of the participants during their post-observation interview, focusing on 1)

what elements of proficient instruction the instructors tended to model, and 2) how the

instructors tended to model proficient instruction.

Modeling elements of effective instruction. As seen in Table 1, instructors spent the

most time modeling questioning and discussion techniques (element 3B), while they spent the

least amount of time modeling assessments practices. (element 3D). In the Danielson

Framework, Danielson (2013) describes proficient instruction related to questioning and

discussion techniques in the following way:

> While the teacher may use some low-level questions, he poses questions designed to
>
> promote student thinking and understanding. The teacher creates a genuine discussion

among students, providing adequate time for students to respond and stepping aside when

doing so is appropriate. The teacher challenges students to justify their thinking and

successfully engages most students in the discussion, employing a range of strategies to

ensure that most students are heard.

Table 1 Frequency Count of Codes/Sub-codes from Observations	
Code/sub-code	Totals
3A Communicating with students · P = Proficient · N = Non-proficient	P 22 N 1
3B Using questioning and discussion techniques · P = Proficient · N = Non-proficient	P 29 N 0
3c Engaging students in learning · P = Proficient · N = Non-proficient	P 19 N 5
3D Using assessment in instruction · P = Proficient · N = Non-proficient	P 14 N 0
3E Demonstrating flexibility and responsiveness · P = Proficient · N = Non-proficient	P 26 N 0
Modeling Type 1 - Implicit Modeling · P = Positive · N = Negative	P 62 N 4
Modeling Type 2 - Explicit Modeling · P = Positive · N = Negative	P 17 N 0
Modeling Type 3 - Explicit Modeling & facilitating translation to the students' own practices · P = Positive · N = Negative	P 3 N 0
Modeling Type 4 - Connecting Exemplary Behavior with Theory · P = Positive · N = Negative	P 0 N 0

This definition served as the code descriptor in my coding schema. With this definition in mind, I coded 29 instances wherein the instructors used techniques that exemplified this definition.

For example, Nina demonstrated proficient questioning and discussion techniques throughout both observations; in one such instance, Nina used student responses to a reflection on "urban education" that she had collected earlier in the year to create a word cloud that visually represented the class's reflections. With the word cloud projected on the board, Nina asked her students to "free write" in response to the following prompts: "Would you change this word cloud now? Does it describe your experience now?" Nina circulated the room as students wrote and stopped to read some of their responses. She then assigned a partner to each student and asked students to share their written responses with their assigned partners. After students shared their reflections in pairs, Nina asked two students to start the whole-class discussion and then invited volunteers to contribute. This began a lively conversation about students' changing perceptions of urban education. This instructional sequence exemplifies Danielson's (2013) description of proficient instruction (specifically element 3B: Using Questioning and Discussion techniques) in that Nina "posed questions designed to promote student thinking," "employ[ed] a range of strategies to ensure that most students are heard," and "creat[ed] a genuine discussion among students." Examples of questioning and discussion techniques, like those employed by Nina, can be found across all four cases in this study.

The instructors also regularly modeled elements 3E: Demonstrating Flexibility and Responsiveness and 3A: Communicating with Students, with these elements being coded 26 and 22 times respectively. For instance, Jenna exemplified Danielson's Flexibility and Responsiveness element when she fielded a question from her students about a conflict with a project due date. The class asked Jenna if the due date could be moved, given that spring break

dates differed between the K-12 field experience schools and Rutgers University. Jenna listened

to the students, acknowledged the students' concern, and said "I'm flexible for all dates, but my

grades are due May 11th." Jenna then explained that students could turn in the project when they

were able to complete it, so long as they gave her time to grade the work and submit grades for

the semester. This interaction exemplifies Danielson's description of element 3E, in that Jenna

"successfully accommodate[d] students' questions" and successfully "ma[de] minor

adjustment[s]" to respond to students' needs.

Just as Jenna's example shows how the instructors modeled element 3E, an example from

Angela's class exemplifies how instructors modeled element 3A: Communicating with Students

in their classes. At the beginning of class, Angela gave a verbal agenda that served as an

overview for the day's lesson. In this overview, Angela explained how many minutes she

expected students to spend on each activity. She also reviewed when upcoming work was due.

At the request of a student, Angela wrote her agenda on the board for all students to see. She

also wrote bullets on the board, within the agenda, to indicate that students should focus on

specific parts of their lesson plan assignment, namely the language demands of their lesson plan,

the language objectives, and the areas where they needed help. Angela's verbal and written

agenda exemplifies Danielson's (2013) description of element 3A, in that Angela "clearly

communicated... [the] instructional purpose of the lesson" and her "spoken and written language

[was] clear and correct" and was "suitable" to students' needs.

While the instructors regularly modeled proficient instruction related to the elements

described above, the instructors were least likely to regularly model element 3D: Using

Assessment in Instruction. Across all four cases, element 3D was coded 14 times, less than half

the number of times that element 3B was coded. Danielson (2013) defines element 3D in the

following way:

> Students appear to be aware of the assessment criteria, and the teacher monitors student
>
> learning for groups of students. Questions and assessments are regularly used to diagnose
>
> evidence of learning. Teacher feedback to groups of students is accurate and specific;
>
> some students engage in self-assessment.

Though data analysis reveals that instructors were least likely to model element 3D, there are

several examples that illustrate what proficient instruction related to that element looks like in

these case studies. For example, Dana asked her students to work in groups and create a drawing

that visually represented the relationship between testing, special education, and discipline. As

students discussed and drew a representation of their shared understanding, Dana circulated the

room and listened to each group. At one point, she helped a group spell a word; at another point,

she asked a group to clarify the arrows that they drew. Dana observed all of the groups, and

eventually announced that students had a minute to finish their work. Once students finished

their drawings, she said, "From your drawings we can see that there is a cause and effect

relationship among many of these topics. So what are the effects of this categorization on student

identity and school-student relationships?" This example shows how Dana effectively modeled

element 3D, in that she "monitor[ed] student learning," gave "feedback to groups of students

[that was] accurate and specific" and used "questions and assessments...to diagnose evidence of

learning" (Danielson, 2013).

Sparse observable data on element 3D may be because teachers often assess students in a

way that is not observable, i.e. teachers can listen to students' conversations and mentally assess

their learning without circulating the room, taking notes, or providing immediate, direct

feedback. Similarly, instructors may be modeling proficient assessment techniques outside of

class time, and then using those out-of-class experiences to guide their instruction. Indeed,

during pre and post-observation interviews, instructors mentioned that they read and responded

to students' online discussion posts, provided feedback on student assignments, and met with

students to discuss their learning and their work during office hours. These examples, though

not observable during class time, represent ways that instructors assessed their students and used

their assessment to inform their teaching.   Nina confirms this when she reports using online

posts to assess student learning prior to class so that she can plan an effective, responsive lesson.

She explains,

> I've taken what [students have] done in their readings, because they have to do the forum
>
> post responses. Because I like to see ahead of time and I tell them, 'I would do this with
>
> my students as well!' If you get a sense of what they're thinking and what their questions
>
> are before class starts, I can then make sure that my class instruction is going to be geared
>
> toward not the stuff they clearly already get.

Thus, it is possible that element 3D was observed least because instructors modeled practices for

this element online or outside of the classroom, and were therefore unobservable given the data

collection strategies employed for this study.

Looking beyond the collective frequency counts of all four participants, disaggregated

data shows that the modeling of instructional elements holds relatively steady across

instructors. For instance, aggregate data shows that element 3D was least likely to be enacted in

the classroom, and when one looks at the data organized by individual participants in Table 2,

this pattern holds: Jenna and Nina were least likely to model examples of element 3D.

Table 2
Frequency Count of Codes and Sub-codes by Participants

Codes by Interviewees	Dana	Jenna	Nina	Angela	Totals
3A Communicating with students P = proficient, N = non-proficient	P 3 N 0	P 7 N 1	P 8 N 0	P 4 N 0	P 22 N 1
3B Using questioning and discussion techniques P = proficient, N = non-proficient	P 10 N 0	P 8 N 0	P 8 N 0	P 3 N 0	P 29 N 0
3C Engaging students in learning P = proficient, N = non-proficient	P 7 N 0	P 4 N 0	P 7 N 0	P 1 N 5	P 19 N 5
3D Using assessment in instruction P = proficient, N = non-proficient	P 6 N 0	P 3 N 0	P 3 N 0	P 2 N 0	P 14 N 0
3E Demonstrating flexibility and responsiveness P = proficient, N = non-proficient	P 9 N 0	P 5 N 0	P 10 N 0	P 2 N 0	P 26 N 0
Modeling Type 1 - Implicit Modeling P = Positive, N = Negative	P 17 N 0	P 19 N 0	P 16 N 0	P 10 N 4	P 62 N 4
Modeling Type 2 - Explicit Modeling P = Positive, N = Negative	P 7 N 0	P 0 N 0	P 9 N 0	P 1 N 0	P 17 N 0
Modeling Type 3 - Explicit Modeling & facilitating translation to the student teachers' own practices P = Positive, N = Negative	P 0 N 0	P 0 N 0	P 3 N 0	P 0 N 0	P 3 N 0
Modeling Type 4 - Connecting Exemplary Behavior with Theory · P = Positive · N = Negative	P 0 N 0	P 0 N 0	P 0 N 0	P 0 N 0	P 0 N 0

Though element 3D was not the least enacted element in Dana and Angela's classrooms, it was the second least observable element, while elements 3A and 3C, respectively, were least likely to be modeled. This pattern is also observable for element 3B, which was the most common instructional element to be modeled in the aggregate data set. When one looks at each individual instructor in Table 2, it is evident that Dana and Jenna were most likely to model examples of element 3B, and element 3B was the second most likely element to be modeled by Angela and Nina, who were more likely to model elements 3A and 3E.

In summary, instructors across all four cases generally spent the most time modeling questioning and discussion techniques, followed by 1) flexibility and responsiveness, 2)

communication with students, and 3) student engagement strategies. Instructors spent the least

amount of time modeling assessments practices, though interview data suggests that this may be

an element of the teachers' instructional practice that was enacted outside the classroom, and

thus beyond the scope of the observations.

Enactment of modeling types. The findings reviewed thus far tell us what participants

believe about modeling and which elements of proficient instruction the participants modeled,

but they do not tell us *how* the participants modeled. To understand how the instructors enacted

teacher educator modeling in these cases, I draw upon the observation narratives to describe the

frequency with which the modeling styles in Lunenberg et al.'s (2007) typology were

employed. I will also give examples of how the instructors employed the various modeling

styles in their classrooms, drawing upon their modeling type descriptors to support my

interpretive decisions.

Looking across the cases, the instructors were most likely to employ Modeling Type 1, or

implicit modeling, in their teaching. As evident in Table 1, there were 62 examples of implicit

modeling coded across the interviews. Lunenberg et al. (2007) define implicit modeling as when

"teacher educators 'walk the talk' and act as examples for their students." In essence, implicit

modeling happens regularly, since teacher educators' pedagogical decisions always serve as a

model for pre-service teachers. In this study, I was looking for instances where the instructors

implicitly modeled the elements of effective instruction as outlined by Danielson (2013). So

when Jenna started her lesson by writing an agenda on the board, she implicitly modeled how to

communicate learning activities and goals with her students (element 3A). Similarly, when Dana

walked around the room listening to students' conversations and stopped to help groups that

seem to be struggling, she was implicitly modeling how to use assessment practices to promote

learning (element 3D). These examples provide a sense for the 62 instances where "Modeling Type 1: Implicit Modeling" was coded across the interviews.

The instructors in this study were much less likely to enact explicit modeling strategies in their teaching. Table 1 shows that "Modeling Type 2: Explicit Modeling" was coded 17 times, which means that implicit modeling was coded more than three times the rate at which explicit modeling was coded. Explicit modeling, according to Lunenberg et al. (2007), differs from implicit modeling in that the instructors use "meta-commentary or comments [to] make explicit the choices they make while teaching and why." While instructors were less likely to model explicitly than implicitly, the data provide several examples of how instructors explicitly model in their classrooms.

For example, during one lesson, Nina explicitly modeled student engagement strategies (element 3C) and flexibility and responsiveness (element 3E) by offering meta-commentary about lesson planning. In this example, Nina asked her students to raise their hands to indicate how many minutes they needed to review the reading assignment that they should have read prior to class. One student raised seven fingers, while the rest of the class raised a range of fingers indicating that everyone needed more time. Upon seeing the seven fingers, Nina chuckled, and remarked: "Well, you're not getting seven minutes!" A student laughed and pushed back, saying "It *is* a lot of reading," which prompted another student to whisper "yea, but it *was* homework." Nina was quick to explain that in lesson planning, a teacher never wants to design a lesson so that the lesson falls apart if students have not done the homework. Instead, Nina says that she always gives students time to review the reading and do something with the reading (like discuss it in pairs or free write) before asking students to use the material in the lesson. In this example, Nina not only "walked the talk" as a flexible teacher who responded to

students' needs and simultaneously promoted greater student engagement, Nina also "talked the talk" by making her pedagogical decision explicit and explaining how she plans her lessons to meet students' needs and engage all learners.

Lunenberg et al. (2007) describe two additional types of modeling that both require instructors to be explicit in their practice. In Modeling Type 3, the instructor connects modeled behavior in the pre-service classroom to the prospective teachers' own practice or field experience. In Modeling Type 4, instructors also draw explicit connections, but this time they connect modeled behavior to educational theory. Table 1 shows that Modeling Type 3 was coded 3 times and Modeling Type 4 was coded 0 times across the data set. This finding is consistent with Lunenberg et al. (2007) & Ritter's (2012) findings that suggest that teacher educators are more likely to model implicitly than explicitly, and when they do model explicitly, they rarely connect their modeling to prospective teachers' practice or to educational theory.

Though there are no examples of Modeling Type 4 and only three examples of Modeling Type 3, an example from Nina's class serves to show what Modeling Type 3 looks like in practice given my interpretation of Lunenberg et al.'s (2007) modeling type descriptions. Nina and her students were discussing the class norm of active listening when Nina lamented how difficult it was to see each other and work collaboratively in their current classroom due to limited space and inadequate furniture. Nina explained that she generally likes to reconfigure the tables and chairs in the room for every lesson, but that this room presented a challenge. Then Nina asked if the pre-service teachers had seen a good model for classroom organization in the K-12 classrooms that they were observing for their field experiences. Several students shared the classroom layouts that they have seen, like a horseshoe shape design, clustered tables, paired desks, etc. After this, Nina remarked, "Structures matter! If you want people to talk to each

other, they have to see each other. So this goes into our planning, right? How we set up the room

for various lessons matters." In this example, Nina not only made explicit her intention to

configure the room a certain way to promote student engagement, she connected her explicit

modeling to students' practice by asking them to share what they have seen in their classroom

observations. Nina also reminded her students that it will be important to consider classroom

design choices in their future practice as K-12 teachers. This is consistent with Lunenberg et

al.'s (2007) description of Modeling Type 3, where teacher educators "try to help students to see

how the teaching modelled can be applied to different teaching situations" so that pre-service

teachers can "incorporate experiences [with teacher educator modeling] into their own teaching"

(p. 591).

   Modeling practice by participant. When the data is disaggregated by participant, one can

see that there are both similarities and differences in the instructors' modeling practices. A quick

review of implicit modeling trends, which can be found in Table 2, shows how participants were

similar: all of the participants were more likely to implicitly model effective instructional

practices than explicitly model. An examination of the frequency counts for implicit modeling

showed that three of the four participants employed implicit modeling at a similar rate: there

were 19 instances of implicit modeling in Jenna's classroom, 17 in Dana's, and 16 in Nina's. In

Angela's classroom, there were 10 instances of implicit modeling. Though there were less

instances of implicit modeling in Angela's classroom, she, like her colleagues, was more likely

to model implicitly than explicitly. One can see another similarity across the participants by

looking at frequency counts for Modeling Type 4 found in Table 2; here, one can see that no

instructor employed Modeling Type 4 at any point during the observations.

As for differences among the participants, a look at explicit modeling trends in Table 2 shows a divide among the participants. Two participants, Nina and Dana, employed explicit modeling 9 and 7 times respectively, while Angela and Jenna employed explicit modeling 1 time and 0 times, respectively. Additionally, only one participant, Nina, enacted Modeling Type 3 during the study: the other participants never explicitly modeled and connected the modeled behavior to pre-service teachers' experiences. Thus, Nina represents the only participant who employed three of the four modeling types, and Nina and Dana were the only two instructors who regularly engaged in explicit modeling during this study.

In summary, all of the instructors were most likely to employ implicit modeling in their practice, and none of the instructors employed Modeling Type 4, or connecting modeled behavior to public or educational theory, during the study. Nina and Dana regularly employed explicit modeling in their classes, while the other instructors did not. On occasion, Nina employed Modeling Type 3 by connecting her explicit modeling to pre-service teachers' experiences, though she was the only instructor to do so.

The Relationship Between Participants' Beliefs and Practices

I turn now to my final research question: what relationship exists between foundations instructors' beliefs and practices related to teacher educator modeling of effective instruction? The data reveal that *what* the instructors modeled and *how* the instructors modeled varied according to the instructors' beliefs about teacher educator modeling. To better understand this variation in modeling practice, it may be helpful to reexamine instructors' beliefs related to modeling and teacher education.

For instance, when it comes to implicit modeling, there is alignment between instructors' beliefs and practices. Reflecting on the instructors' beliefs, all four instructors responded

positively when asked what they thought about an excerpt from the Association for Teacher

Educators' (2008) first standard, which states that the "effective modeling of desired practices is

at the heart" of pre-service teacher education. Jenna, for example, remarked, "I think it's really

important to model the kind of teaching you want your students to eventually do." Dana agreed

with Jenna, and explained how implicit modeling can help pre-service teachers:

> I don't necessarily think you even need to make [modeling] explicit, but if you're showing
>
> [pre-service teachers] a graphic organizer or you're allowing them to get up and walk
>
> around and use sticky notes or whatever ... all those little tricks and stuff...it's stuff that
>
> [pre-service teachers] then know how to do, or they've learned, or they've experienced, or
>
> it can come to their mind when they're trying to teach something.

In other words, Dana believes that the "effective modeling of desired practices" will provide pre-

service teachers with experiences that they can draw upon in their future teaching careers. Given

these beliefs, it is consistent that Dana, Jenna, and the other instructors "walk[ed] the talk" and

"act[ed] as examples for [their] students," employing Modeling Type 1 frequently in the

classroom (Lunenberg et al., 2007). Indeed, the observational data found in Table 1 reveals that

all of the instructors regularly demonstrated implicit modeling of effective instructional practice,

or Modeling Type 1, in their classrooms. Thus, in this instance, we see that instructors' beliefs

and practice are aligned.

Beliefs and practice are further aligned when one considers explicit modeling, or

Modeling Types 2, 3, and 4. For example, when Angela explained her beliefs about teacher

educator modeling, she emphasized how she models the dispositions that she wants her students

to embody, like care, passion, vulnerability, and global citizenship. Though Angela implicitly

modeled several elements of effective instruction, she almost never *explicitly* modeled the

elements of effective instruction considered in this study. In essence, Angela believes that

teacher educator modeling is about modeling dispositions, and not necessarily about modeling

instructional practices, which may explain why she almost never explicitly modeled the elements

of effective instruction during the classroom observations.

Like Angela, Jenna never explicitly modeled in this study, and revisiting her beliefs may

help us to understand why. First, Jenna believes that she is "more of an implicit kind of a

person" who does not feel the need to model explicitly in her Urban Education classroom. This

may be because she sees her role differently than some of the other instructors in this study.

Jenna sees her role as broader than preparing pre-service teachers; Jenna sees herself as someone

who equips students to become change agents. She says,

> My goal is not necessarily to create a room full of teachers, but to create a room full of
>
> knowledgeable people who...begin to know themselves well enough to figure out how
>
> they're going to play a role in helping fix some of these [educational and societal
>
> problems].

Given that Jenna's focus is on developing change agents, which is a broader goal than preparing

teachers to enter the K-12 classroom, it is understandable that Jenna does not explicitly model

effective instructional practices in her lessons on a regular basis. To be clear, Jenna does

recognize that the majority of her students want to become teachers, and she believes that pre-

service teachers need to see "the kind of teaching you want your students to eventually do."

This, perhaps, is why Jenna implicitly models effective instructional practice, but does not feel

the need to be explicit. In summary, neither Jenna nor Angela explicitly modeled in this study,

and their beliefs about teacher educator modeling help us to understand why.

In the case of Dana and Nina, the instructors' beliefs and practice are aligned when it comes to explicit modeling. As one can see in Table 2, Dana and Nina were the two instructors that regularly engaged in Modeling Type 2 in their classrooms, and their practice is supported by their beliefs about the importance of modeling. Dana believes that she implicitly models more than she explicitly models, a belief that is consistent with the observational data. However, Dana acknowledges that explicit modeling is ingrained in her from when she taught middle school. She explains, "I taught seventh grade, and I was very explicit about the modeling, because we had this 'I do, we do, you do [strategy].'" This meant that Dana would explicitly model something, like writing an introductory paragraph, for her middle school students. After Dana explicitly modeled, she would write an introductory paragraph with her students, and then her students would write their own introductory paragraph. In her Urban Education class, Dana's explicit modeling looks different than it did in her seventh grade classroom, because Dana models the strategies and pedagogical thinking that her students will enact later, when they are in their own classrooms. For instance, as seen earlier in the case description, Dana explicitly modeled an engaging activity wherein students would make their learning visible. She introduced the activity in the following way:

> When I was planning this week, I lumped all of these three [topics] together. Usually I would make my case for why, but I want you to tell me why you think that they are together. And I want you to draw a picture that shows what you think. Does that make sense? So go!

Here, we can see that Dana used "meta-commentary or comments…[to] make explicit the choices [she] makes while teaching," employing Modeling Type 2 several times across both observations (Lunenberg et al., 2007).

Like Dana, Nina often modeled explicitly, and was the instructor who employed Modeling Type 2 the most; reexamining her beliefs may help us to understand why. Nina's use of modeling likely flows from her belief that teacher education "needs to be practiced-based, and that we need to be modeling the kinds of behaviors that we want our teachers to go out and do." Nina, therefore, works diligently to expose her pre-service teachers to an array of strategies to build her students' "toolbox," or pedagogical repertoire, while modeling her pedagogical thinking. As such, she is careful to design lessons that model her underlying beliefs about learning:

> I'm not going to stray away from the ideals of progressive education if that's what I believe in. And if I believe that [K-12] students should be constructing knowledge in the classroom, then I'm going to show my university students that...they're going to construct knowledge in a similar way. It's just going to be brought up to scale.

As Nina explains, she strives to expose her students to the approaches and thinking that she wants them to later enact, and she aims to adjust her modeling so that it is level-appropriate, taking her students' developmental needs into account.

Beyond "walking the talk" and implicitly modeling these effective instructional practices, Nina, unlike Angela or Jenna, specifically describes her intention to model explicitly. She says, "[When] modeling, we try to obviously use strategies. And I try to step out and tell [pre-service teachers] why we're doing the things that we're doing. So that they could try it themselves." Here, Nina refers to her explicit modeling as "stepping out" to tell her class about the modeling that she is enacting, and then she explains "why" she is modeling a particular approach or practice. McGrew, Alston, and Fogo (2018) also use the term "stepping out" to describe how

teacher educators can explicitly model core practices in their classrooms (p. 36). Nina describes

what "stepping out" looks like in a typical class, saying:

> When I have [pre-service teachers] discuss a text in class or if I have them doing group
>
> work, I try to always model...using protocols or strategies that I would use with middle
>
> and high school students. [I try] to be explicit about that with students so they can see
>
> these are strategies…[I'll say] 'even though the content you'll be teaching is very
>
> different, the actual way that we're going to do it, I'm going to be treating you like you
>
> were students in a class and then this is something you can do.' And [the pre-service
>
> teachers] understand that.

Here, we can see that Nina describes how she uses "meta-commentary or comments…[to] make

explicit the choices [she] makes while teaching and [to explain] why" she makes those choices

(Lunenberg et al., 2007). Nina's beliefs about explicit modeling and her descriptions of what

explicit modeling looks like in the classroom are consistent with the observational data found in

Table 2, which shows that Nina was the instructor who most often employed Modeling Type 2.

Nina represents the only participant in this study to extend her modeling practice and

engage in Modeling Type 3: Explicit Modelling & Facilitating Translation to the Student

Teachers' own Practices. Though Nina is an outlier in this regard, Nina's practice is in line with

her beliefs about explicit modeling. According to Nina, "students need to see models of different

strategies that they can transfer into their classroom." Here we see that Nina specifically

mentions the idea of "transfer" when discussing her beliefs about modeling. Even though the

other instructors in this study discuss the importance of transferring learning and connecting

learning to field experience, they do not explicitly draw connections between the instructional

practices that they model and their pre-service teachers' practice. Thus, Nina's emphasis on

modeling and transferring pre-service teacher learning to the K-12 classroom aligns with Nina's

practice.

Summary of Findings

In the preceding sections, I explored the findings of this study as they relate to the

research questions: a) what do foundations instructors believe about modeling in a teacher

education program, b) in what ways do foundations instructors model effective instructional

practices in their foundations courses, and c) what relationship exists between these beliefs and

practices? Concerning beliefs, the instructors expressed positive views about teacher educator

modeling, as exemplified by Nina's reflection on her commitment to modeling:

> I think a lot about modeling for the students...I think I plan lessons in terms of modeling
>
> because I feel like that's the way we all learn. This is all a new genre of behavior for all
>
> these students. This is the first time taking on a role of a teacher and [they're] learning a
>
> whole new repertoire of behaviors and ideas.

Here, we see that Nina believes that teacher educator modeling can facilitate learning during the

formative pre-service years. When asked if her colleagues share her commitment to modeling in

the new Urban Education program in the GSE, she explained,

> I don't know what everyone's practice is like, [though] I feel like the commitments and
>
> the mission and the vision are in the right place...and I feel like the people that are on our
>
> Urban Ed team, ...since we have this vision of a shared syllabus, I feel like I have a good
>
> sense that people are on the same page within our Urban Ed team.

Nina's perception is partially supported by the observational data. On the one hand, all

instructors in this study implicitly modeled effective instructional practices during classroom

observations. In general, the instructors were most likely to implicitly model element 3B: Using

Questioning and Discussion Techniques, while they were least likely to implicitly model element 3D: Using Assessment in Instruction. On the other hand, only Nina and Dana went beyond implicit modeling and engaged in explicit modeling in their classrooms. Furthermore, Nina was the only instructor to connect her explicit modeling to the pre-service teachers' field experiences, and no instructor connected explicit modeling to educational theory. Overall, the teacher educators in these four cases were more likely to model implicitly than explicitly, and they rarely or never modeled and connected their modeling to pre-service teacher experiences or educational theory.

Nina's reflection and the observational data tell two sides of the same story; the instructors believe that teacher educator modeling is an important aspect of pre-service learning, yet the instructors articulate differing beliefs about how teacher educators should model. These different conceptions of teacher educator modeling correspond with a variety of modeling practices. The instructors who articulated a desire to model the practices and pedagogical thinking that pre-service teachers will need to enact in K-12 classrooms were the most likely to explicitly model, whereas the instructors who spoke the least about modeling tools and pedagogical thinking were the most likely to implicitly model. Thus, we see that the variation in modeling practices across the cases is best understood in light of the participants' differing beliefs related to teacher educator modeling. Drawing on these findings, I will now discuss future implications for work begun in this study and recommendations that flow from these findings.

Chapter Five: Discussion

A review of teacher education literature reveals that scholars often approach questions related to teacher educator modeling in two ways: what teacher educators *believe* about modeling and *how* teacher educators model. No studies use a framework of effective practice, and very few studies, apart from some self-studies (Bullock & Christou, 2009; Hogg & Yates, 2013; Loughran & Berry, 2005; Ritter, 2012; White, 2011), look at the relationship between teacher educators' beliefs and practices in relation to modeling effective instruction. This study brings these two streams of research together. As such, I can speak to the relationship between teacher educators' beliefs and practices in a way that most studies cannot. Thus, in this chapter, I discuss my findings in relation to the literature and discuss how the findings of this study can shape teacher educators' practice using the Rutgers GSE site as an example. I will also review the limitations of my study and make recommendations for future research.

Discussion of Findings

Teachers in the K-12 environment are facing increasing accountability measures that evaluate their enactment of effective instructional practices in classrooms across New Jersey (Buchanan, 2015; New Jersey Department of Education, 2015; Pianta & Kerr, 2014). At the same time, teacher education programs are facing increasing demands to effectively prepare and evaluate pre-service teachers prior to their entry into the profession (Darling-Hammond, 2010; Ginsberg & Kingston, 2014). During this time of increased scrutiny for K-12 teachers and teacher education programs, leaders in the field have suggested that teacher educator modeling is a way to strengthen pre-service teacher learning (Grossman, 2018; Korthagen et al., 2006; The National Council for Accreditation of Teacher Education, 2008; The Association for Teacher Educators, 2008). Researchers have studied how teacher educators model a myriad of variables,

like differentiated instruction (Ruys, Defruyt, Rots, & Aelterman, 2013; Santangelo & Tomlinson, 2012), technology integration (Admiraal, van Vugt, Kranenburg, Koster, Smit, Weijers, & Lockhorst, 2017; Scrabis-Fletcher et al., 2016) and culturally relevant pedagogy (Appleyard & McLean, 2011; Averill, Anderson, & Drake, 2015). Given the context of hyper-accountability for teachers in New Jersey, this study examines how four teacher educators modeled effective instructional practices as defined by a state-approved tool for measuring proficient instruction: The Framework for Teaching Evaluation Instrument (Danielson, 2013).

The findings that emerged from these case studies suggest that the instructors share positive perceptions of teacher educator modeling because they believe that pre-service teachers learn through experience. However, the instructors describe teacher educator modeling in diverse ways. Some instructors, like Angela, describe teacher educator modeling in a limited, technical way, i.e. demonstrating how to write an objective for the edTPA portfolio. Other instructors, like Nina, see teacher educator modeling more broadly, referring to modeling as a pedagogical stance that brings pedagogical thinking and best practices into the pre-service classroom, i.e. modeling strategies that encourage all students to actively participate in class discussions. Additionally, instructors like Jenna and Angela approach the concept of modeling from a dispositional perspective, focusing on the attitudes and beliefs that teacher educators demonstrate for their pre-service teachers, while Dana and Nina focus less on dispositions and more on the practices and pedagogical thinking that pre-service teachers will need to enact in their future classrooms.

A review of the literature also shows a multiplicity of descriptions of teacher educator modeling. Some scholars and professional organizations describe teacher educator modeling as "walking the talk" or "practicing what we preach" (Aleccia, 2011; Boyd & Harris, 2010; The

Association for Teacher Educators, 2008). Yet these conceptions of teacher educator modeling

stress implicit modeling and neglect other forms of modeling. Other scholars (Bullock &

Christou, 2009; Loughran & Berry, 2005; McGrew, Alston, & Fogo, 2018; White, 2011) believe

that teacher educator modeling must be made explicit for pre-service teacher learning to

occur. When teacher educators model explicitly, they can offer a meta-cognitive window into

the work of teaching in several ways, i.e. thinking aloud, journaling, pre and post-class

discussions, and co-teaching (Loughran & Berry, 2005).

Building upon this understanding of explicit modeling, some scholars discuss how

teacher educator modeling can be extended to draw connections between the instructors'

modeling and pre-service teachers' field experiences or educational theory (Lunenberg et al.,

2007; Swennen et al., 2008). Connecting explicit modeling to pre-service teachers' field

experience is important because, as Lunenberg et al. (2007) note, "teacher educators may discuss

their pedagogical choices with their student teachers, [but] this does not necessarily mean that

the students can make the translation to their own teaching" (p. 591). By drawing explicit

connections between the modeled behavior and pre-service teachers' work in K-12 classrooms,

Lunenberg et al. (2007) believe that teacher educators can better facilitate this translation.

Swennen et al. (2008) make a similar argument, but emphasize the need for teacher educators to

engage in "congruent teaching," where teacher educators explicitly model and link modeled

behavior to theory. They argue that "teacher educators should not confine themselves to (1)

modeling but should also (2) explain the choices they make while teaching (meta-commentary)

and (3) link those choices to relevant theory" (p. 531). Swennen and her colleagues emphasize

the importance of linking explicit modeling to theory so that the theory can "come alive" and

"influence educational practice."

In this study, all of the instructors implicitly modeled effective instructional practice. Additionally, all of the instructors expressed positive perceptions of teacher educator modeling, as they believe that experiential learning promotes pre-service teacher learning. Despite these similarities across participants, the instructors' practice varied in its implementation. Only two instructors regularly engaged in explicit modeling. This variation in practice is best understood in light of the instructors' beliefs about teacher educator modeling. Essentially, the instructors who believe that teacher educators need to provide pre-service teachers with the opportunity to learn instructional practices and pedagogical thinking for their work in K-12 classrooms were the most likely to model explicitly, while instructors who emphasized beliefs about what pre-service teachers need to know or what dispositions pre-service teachers should possess were more likely to model implicitly.

The findings of this study mirror findings in the literature. For example, in Lunenberg et al.'s (2007) study, the researchers observed ten teachers and collected data on the modeling types that they enacted: of the ten teacher educators, six of the ten educators explicitly modeled, four of the ten educators translated the explicit modeling into the pre-service teachers' field experience, and no educator connected explicit modelling to theory. Likewise, teacher educator Jason Ritter (2012) used the Lunenberg et al. (2007) modeling typology to conduct a self-study of his elementary social studies methods courses and found that Modeling Type 1 (implicit modeling) "dominated [his] work." While implicit modeling was most common, Modeling Type 2 (explicit modeling) was the next most prevalent type found in his practice, and Modeling Types 3 & 4 were rare in his teaching. In my study, a similar pattern emerged; the teacher educators regularly engaged in implicit modeling of effective instruction, yet only two of the four participants explicitly modeled and only one of the four instructors connected explicit

modeling to field experience. Like Lunenberg et al. (2007) and Ritter's (2012) studies, no

instructor in this study demonstrated Modeling Type 4: Connecting Exemplary Behaviour with

Theory. This pattern may lend credibility to my study, in that the findings of this study are

consistent with the observational study conducted by Lunenberg et al. (2007) and the self-study

conducted by Ritter (2012).

Though our findings are similar, Lunenberg, Korthagen, and Swennen (2007) conclude

that "there appears to be little or no recognition of modelling as a teaching method in teacher

education" (p. 597), a point that this study strongly contests. A review of relevant literature

shows that scholars, teacher educators, and teacher education associations recognize the

importance of modeling as a pedagogical strategy to improve teacher education (Aleccia, 2011;

Korthagen et al., 2006; Loughran & Berry, 2005; McGrew, Alston, & Fogo, 2018; The

Association of Teacher Educators, 2008; The National Council for Accreditation of Teacher

Education, 2008). Indeed, in these four cases, the instructors expressed positive perceptions of

teacher educator modeling, and regularly engaged in implicit modeling of effective teaching

practices. The instructors who explicitly modeled in this study were the instructors who believed

that modeling should involve demonstrating appropriate pedagogical skills and thinking that pre-

service teachers will need for their work in K-12 schools. Conversely, the instructors who only

implicitly modeled were the instructors who believed that teacher educator modeling had more to

do with modeling the dispositions necessary for future work as K-12 teachers and educational

change agents. Thus, this study moves beyond earlier studies and adds nuance to the larger

conversation about teacher educator modeling in that the modeling practices of teacher educators

varied according to the instructors' beliefs about modeling. Though this relationship is not

necessarily causal, the relationship between beliefs and practices uncovered in this study may

help provide direction to researchers and scholars who are interested in improving teacher education.

Limitations

Regarding limitations in the study design, there are several that are worth noting. First, this study was conducted with a small, diverse sample of GSE instructors. The sample included one Assistant Professor of Urban Teacher Education, one Assistant Professor of Practice, and two doctoral students who worked as part-time lecturers and teaching assistants. Some might consider this small sample size a limitation; as Lauer (2004) notes, larger sample sizes are preferable because "they are more representative of the population than small samples" (p. 71). However, the purpose of the multi-case study is not to generalize to the entire population, but to describe what is occurring in these specific cases and to make observations that may contribute to broader conversations on teacher education pedagogy.

Other limitations of this study arose once the study commenced. For example, one might question whether my pre-observation interview questions influenced instructors' teaching during the class observations. Though I piloted my questions and worked with my fellow doctoral students to write interview questions that were not overly suggestive of my research questions, there is always the chance that either the questions or the actual act of overt observation prompted the participants to act, or in this case, teach, differently than they would normally have done (Cohen, Manion, & Morrison, 2007). However, teachers can only change their practice in response to an announced observation to the extent that their knowledge, experience, and skill equips them to do so. In this instance, because no instructor exhibited Type 4 modeling and only one instructor enacted Type 3 modeling, there is reason to believe that the act of observation did not radically alter instructors' teaching practices.

Another limitation that arose during the study concerns the instruments that I used during the observations and interviews. Because my study addresses questions about teacher educator modeling of effective instructional practices, I knew that I needed to operationalize the terms "teacher educator modeling" and "effective instruction." Thus, I used the Lunenberg et al. (2007) modeling typology to define and describe types of modeling, and I used Danielson's (2013) Framework for Teaching Evaluation Instrument, which is the most commonly used state-approved tool for measuring proficient instruction in New Jersey, to describe effective instructional practices. While these instruments were helpful in both the interviews and the observations, I realized during data analysis that some of the instructors spoke about modeling teacher dispositions more than they spoke about modeling effective instructional practices, and I did not have an instrument to define or describe teacher educator dispositions. In the future, I recommend that researchers use an instrument that describes teacher dispositions, so that researchers may consider not only how teacher educators model effective instructional practice, but also how they model certain dispositions to their pre-service teachers.

Implications for Practice

I will now consider the implications of these findings as they relate to modeling effective instruction in teacher education. Despite my divergent findings related to the current state of modeling in teacher education, I join with Lunenberg et al. (2007) in the belief that there is "enormous potential" (p. 123) in using modeling as a tool to improve teacher educator practice and pre-service teacher learning. Thus, EPPs should provide opportunities for teacher educators to learn more about modeling and to have opportunities to explore, expand, and improve their practices related to modeling through a communities of practice approach to learning. I will now

describe the rationale for this recommendation and explore how this recommendation may be put into practice using the Rutgers GSE site as an example.

In these case studies, all of the instructors implicitly modeled effective instruction on a regular basis, but only two of the four instructors regularly engaged in explicit modeling. While implicit modeling of effective instruction does allow pre-service teachers to experience best practices first hand, scholars have raised concerns that implicit modeling may not be sufficient to facilitate pre-service teacher learning (Bullock & Christou, 2009; Hogg & Yates, 2013; Loughran & Berry, 2005; Ritter, 2012; White, 2011). As Bullock and Christou (2009) explain, "implicit modeling can be ineffective because candidates are often unaware that the teacher educator is trying to model a particular pedagogy" (p. 86). In other words, even when teacher educators work hard to plan and implement specific tools or pedagogical approaches, pre-service teachers may not recognize what their instructors are implicitly modeling, which means that not all pre-service teachers are learning from their instructors' modeling. For this reason, McGrew, Alston, and Fogo (2018) stress that teacher educators must be explicit about their modeling. They argue that "giving [teacher candidates] access to not only our enactment of ambitious practices but also our metacognitive thinking around those practices can support [teacher candidates] in teaching in equitable and ambitious ways" (p. 39). Here, McGrew, Alston, and Fogo (2018) locate the need to explicitly model in a larger conversation about equity; to ensure that all K-12 students have access to equitable and ambitious instruction, pre-service teachers should also have access to that instruction. To achieve this, teacher educators should call attention to their modeling and explain the "metacognitive thinking" behind their practice so that *all* pre-service teachers have access to teacher educators' explicit modeling of equitable and ambitious instruction.

When teacher educators explain their "metacognitive thinking," the teacher educators' pedagogical reasoning becomes "visible" to pre-service teachers, and pre-service teachers learn not only how to *act* like teachers, but how to *think* like teachers. In this way, modeling is not just about demonstrating a skill for pre-service teachers to later imitate; instead, modeling allows pre-service teachers to see into instructors' thinking behind certain pedagogical moves. Thus, unlike implicit modeling, explicit modeling means that pre-service teachers' learning is not left to chance, because teacher educators invite all pre-service teachers to consider what is being modeled and why or how it is being modeled. This is consistent with the shifts in teacher education pedagogy described in my review of relevant literature. While teacher education discourse in the 1960s and 1970s emphasized the imitation of teaching practices, and teacher education scholarship in later decades emphasized the role of knowledge and reflection, current teacher education discourse posits that practice, knowledge, and reflection are necessary components of teacher learning (McDonald et al., 2013; Grossman et al., 2009). By explicitly modeling core practices, today's teacher educators can bring together practice, knowledge, and reflection to facilitate pre-service teacher learning and equip students to be effective instructors once they enter the workforce.

However, as the literature and my findings show, explicit modeling types are often underutilized. Researchers like Ritter (2012) and White (2011) explain that explicit modeling can be challenging for some teacher educators to enact, which results in underutilization. Reflecting on his practice, Ritter (2012) explains, "more so than any other challenge, it appears my biggest obstacle in regularly engaging in the sort of [modeling] practice I desired was related to my own lack of practice using modeling as a tool for preservice teacher learning" (p. 123). However, Ritter (2012) found that engaging in self-study heightened his awareness and desire to explicitly

model and connect modeled behavior to pre-service teachers' experience and to theory.

Similarly, White (2011) recognizes that in the beginning of her study, she did not model as

explicitly as she thought she would. However, she concluded that "through the process of

enquiring into the effectiveness of modelling, I have a better perceptual framework of my own

teaching and have been able to implement strategies to make my thinking more explicit" (p.

494). Though neither Ritter (2012) nor White (2011) initially modeled to the degree that they

wanted to model, their research offers hope that teacher educators can learn to model more

explicitly and effectively. Indeed, in the cases of Ritter (2012) and White (2011), we see that

knowledge of modeling types and data on modeling practice can increase teacher educator

capacity and commitment to modeling.

        If education preparation providers want teacher educators to more regularly incorporate

explicit modeling into their practice, they should consider interventions that address their

institutions' professional learning needs. When planning for teacher educators' professional

learning, EPPs should be careful to avoid professional development approaches that see teacher

change as something that can be achieved through one-time workshops or lectures. Instead,

EPPs must recognize that teacher educators are "active learners [who] shape their professional

growth through reflective participation in professional development programs and in practice"

(Clarke & Hollingsworth, 2002, p. 948). With this understanding in mind, EPPs may be able to

avoid a "knowledge for practice" conception of teacher learning, where relevant scholarship or

outside experts inform instructors about best practices related to teacher educator modeling.

Instead, EPPs can take up a "knowledge in practice" conception of teacher learning, where

teachers share their experiences and beliefs related to modeling, and ultimately work towards a

"knowledge of practice" conception of teacher learning, where change is achieved through

community-led inquiry and co-development of new knowledge and practices related to modeling

(Cochran-Smith & Lytle, 1999).

      To begin, based on this study's findings, education preparation providers might seek to

promote collegial inquiry into teacher educators' beliefs about modeling. Korthagen's (2004)

model for teacher change discusses the important role of teachers' beliefs, since "the beliefs

teachers hold with regard to learning and teaching determine their actions" (p. 81). Because

beliefs "strongly affect" behavior (Pajares, 1992), EPPs might first want to understand what their

teacher educators believe about modeling. With a better understanding of teacher educators'

beliefs in place, EPPs can plan professional development experiences that complement or

challenge teacher educators' beliefs related to explicit modeling of effective instruction.

Similarly, teacher educators can work together as an inquiry community to interrogate their

beliefs related to modeling, consider their beliefs in relation to the literature on modeling, and

eventually engage in action research and other forms of inquiry to develop plans for expanding

their modeling repertoire. By critically reflecting on teacher educators' beliefs and engaging in

collaborative professional learning about teacher educator modeling, new attitudes towards

modeling may promote changed practice (Clarke & Hollingsworth, 2002).

      But professional learning is not always motivated by a change in beliefs (Guskey, 1986).

Clarke and Hollingsworth (2002) remind us that teacher learning does not occur in "prescriptive

linear fashion," so EPPs should take into account "the possibility of multiple change sequences

and a variety of possible teacher growth networks" (p.965). One such change sequence may find

its genesis not in altered beliefs, but in new language. Research suggests that if education

preparation providers want to encourage teacher educators to model more explicitly, they might

seek to promote a shared language and shared understandings about modeling among teacher

educators (Swennen et al., 2008). Indeed, Swennen et al.'s (2008) study of teacher educators

found that teacher educators' acquisition of language related to modeling enabled the teacher

educators to model more explicitly. Indeed, Dana alluded to this possibility in her post-

observation interview. After viewing the Lunenberg et al. (2007) modeling typology and

considering the modeling types that she enacted in her practice, she said that she never really

thought about modeling in the way that Lunenberg et al. (2007) describe, but that she could

improve her modeling practice now that she is more aware of specific approaches to

modeling. Perhaps, as Dana and Swennen et al. (2008) indicate, EPPs could use a common

language to discuss teacher educator modeling at a school or department-wide level and, in turn,

build teacher educators' capacity with regard to modeling.

     Recommendations for the GSE. Drawing on the implications for practice discussed

above, I will now explore recommendations using the Rutgers Graduate School of Education

(GSE) as an example of how these implications may be applied in an EPP site. Before offering

specific recommendations, I will first examine the collaborative nature of the GSE that serves as

the foreground for my recommendations.

     When I asked the participants what supported their ability to model effective teaching

practices, all of the participants indicated that their GSE colleagues were a source of support.

For instance, Angela says "I'm lucky in that I work with good educators, and...some of the

strategies I learned from colleagues." Dana also learned strategies from her colleagues,

explaining:

     I think having a network of people who are willing to [help has been really important to

     my learning]... because I definitely have made use of that, informally speaking, where

I've been able to email multiple professors here and be like, 'What do I do?' or, 'What

would you do?'

This experience is not unique to Dana or Angela; all of the instructors indicated that they

communicated regularly with at least one other instructor who taught a different section of their

course and a range of other GSE colleagues. Additionally, the instructors spoke positively about

the collaborative effort that went into writing the syllabus and assessments for the courses that

they were teaching. In short, all of the participants described the collegial, collaborative

atmosphere of the GSE as a factor that facilitated their learning and helped them to model

effective teaching practices in their respective courses.

Building upon the benefits of this collaborative environment, the GSE might seek to

establish a professional learning community (PLC) to promote explicit modeling of effective

teaching practices. PLCs are "a group of people sharing and critically interrogating their practice

in an ongoing, reflective, collaborative, inclusive, learning-oriented, growth-promoting way"

(Stoll, Bolam, McMahon, Wallace, & Thomas, 2006, p. 223). As Wood (2007) indicates, these

PLCs can vary in format, though the goal remains the same: "Teacher learning communities,

such as professional networks, critical friends groups, study groups, and teacher research

collaboratives provide settings for teachers to learn and build knowledge together" (p. 284). To

continue learning and building knowledge related to explicit teacher educator modeling, the

instructors of the new Urban Education and Teaching Emerging Bilinguals courses might find it

beneficial to form a PLC that reviews research on teacher educator modeling, examines relevant

data, and interrogates and learns from a systematic inquiry into their own current practices and

efforts to expand their modeling efforts.

The recommendation to encourage implementation of a PLC in the GSE is born out of

the instructors' simultaneous praise for the collaborative nature of the GSE and their recognition

that there are few formal opportunities for professional learning in the GSE. Jenna reported, for

example, "I don't think I have any formal [opportunities]...I've never heard of anything being

called "professional development (PD) [in the GSE]." However, Jenna recognizes that there are

many informal opportunities for professional learning. She said, "A lot of people whose paths I

cross here [in the GSE] are educators, so we talk shop sometimes. And that's all PD, really. But

I seek it out, you know?" Angela agrees with Jenna, and wants to make it easier to seek out

opportunities for professional learning:

> At the GSE, there are so many of us now who came into our positions with the new title,
>
> "Professor of Practice." There are new sets of practice [for us to do this job], and I think
>
> because it's so brand new, there's not yet a community of professors of practice. I think it
>
> could be a great learning and support system. [Other institutions] have learning groups,
>
> and so they tackle specific issues of practice together. And the research that comes out of
>
> it that I get to see at various conferences, I think it's very deep. […] It really reflects the
>
> amount of thinking about practice that has regenerated through those conversations. And
>
> I think it's a good model for learning how to model, or to even just be critically reflective
>
> of your teaching.

Here, we see that Angela believes that new instructors could work together in a PLC to "tackle

specific issues of practice," like how to best model effective instructional practices for pre-

service teachers.

It is important to consider how a PLC might be different from the collaborative

environment already established by the cohort of instructors who teach Urban Education and

Teaching Emerging Bilinguals in PK-12 Classrooms. To begin, when the participants discussed

working with their colleagues on the development of these courses, their descriptions centered

mostly on collaborative design of syllabi elements, i.e. course themes, texts, and assessments.

Some of the participants also reported that they occasionally used instructional strategies and

activities that their colleagues had recommended, like the Socratic seminar activity. However,

on the whole, the participants did not describe their collaborative work as an ongoing, inquiry-

based learning community that examined data to guide professional learning. By meeting

regularly as a PLC and inquiring into their practice, the instructors may be able to plan, collect,

and review data that could further develop both their teaching and pre-service teacher learning.

        If instructors wish to engage in continuous, collaborative inquiry with the aim of learning

how to better model effective instructional practice, then the instructors must decide what data

they can collect and examine in a collaborative setting. One potential source of data could come

from peer observation. The recommendation to engage in peer observation is born out of

comments made by Dana and Nina. While participating in this study's post-observation

interview, Nina explained that she did not know whether her colleagues modeled effective

instructional practices in similar ways due to faculty isolation in the GSE. She said, "I'm still

new enough that I don't know everybody's practices, which is the interesting thing and the sad

thing...like our faculty, our work is so isolated. Even more so than we would be in a high

school." Dana did not use the word "isolation," but she did indicate that having me as an

observer in her class was a novelty: "It was the first time anyone's observed me, ever, so it was

kind of nice." While peer observation may be a practice among some faculty in the GSE, Dana

and Nina's comments tell us that peer observation is not a practice among the Urban Education

and Teaching Emerging Bilinguals instructors or in the several other courses that Dana and Nina

have taught in the GSE. If other instructors of the Urban Education and Teaching Emerging

Bilinguals courses could join with Nina and Dana and agree to engage in peer observation, then

the instructors could meet as a learning community and collaboratively examine data like

observation notes, reflections, and artifacts in the hopes of generating new learning and

supporting professional development.

Another potential source of data for collaborative inquiry could be collected via self-

study research. In this type of research, instructors make their own teaching a site of inquiry in

order to understand their practice, improve their teaching, and contribute to the broader field of

education (Zeichner, 1999). Encouraging self-study through collaborative PLCs could promote

professional learning because, as Cochran-Smith and Lytle (1999) describe, the self-study

approach "focuses on professional development by clarifying assumptions, recognizing

discrepancies between beliefs and practices, and rethinking practices based on self-reflective

analyses" (p. 271). The recommendation to use the self-study approach is born out of the

participants' reactions while they debriefed about their observations. Though my study was not

a self-study, the instructors were given an observation narrative that recounted their lesson and

were asked several reflection questions about their teaching practices. In a sense, the participants

were asked to conduct a self-study using the record of their observation. Here is how Dana

reacted during her observation debrief:

> So [thinking about my teaching] was kind of cool. It felt validating, but it also feels like it
>
> was really interesting to read these [observation narratives and frameworks], because then
>
> I was like, 'Oh wow, I guess I do a lot of things really well.' Then it was cool to think
>
> about the things that I could do better...I found it very helpful.

Dana is not alone in thinking that inquiry into her teaching practices is a helpful exercise. A number of teacher educators have used the self-study method to examine their teaching practices and have reported positive learning outcomes (Bullock & Christou, 2009; Hogg & Yates, 2013; Loughran & Berry, 2005; Ritter, 2012; White, 2011). The self-study method has been especially helpful for teacher educators who want to understand and further develop their modeling practices. For example, Loughran and Berry (2005) found that the "self-study methodology has helped us to see into teaching about teaching in new and different ways and has catalysed the development of our approach to modelling which we see as helpful in unpacking the problematic nature of teaching for student–teachers and ourselves" (p. 202). Thus, just as Loughran and Berry (2005) developed their modeling practices through collaborative self-study, so too might the instructors of Urban Education and Teaching Emerging Bilinguals.

In summary, instructors in the GSE may be able to draw upon their collegial and collaborative environment to form inquiry-driven PLCs in order to study their beliefs and practices about teacher educator modeling. The literature and the participants in this study suggest that instructors might begin to collect data through peer observations and self-study; data analysis may help the instructors to not only collaborate around elements of the course syllabi, but to also consider teacher educators' modeling and instructional practices. While scholars have written much about how teacher educators model and why teacher educators should model, a PLC allows instructors in the GSE to address the unique context of the redesigned Urban Social Justice Core and generate new knowledge that may benefit teacher educators and, ultimately, pre-service teachers.

Implications for Research

There is exciting work to be done in the field of teacher education, especially when it comes to studying teacher educator modeling. Given my small sample of participants, future researchers may wish to study more teacher educators within and across EPPs to see if the relationships between instructors' beliefs and practices are aligned as they were in this study. Researchers might also consider whether instructors' role as doctoral students, part time lecturers, or faculty members influences modeling beliefs and practices, given that a variety of people are engaged in the work of teacher education regardless of whether they set out to become teacher educators. To approach similar research questions from a new angle, researchers may wish to invite pre-service teachers into the conversation in order to obtain their perspective on their instructors' modeling practices. Drawing on the implications for practice described above, researchers might also consider whether certain PLC-related interventions, like peer observation and self-study, can further develop teacher educators' modeling practices.

Findings from this study also indicate that the field of teacher education may benefit from a more multidimensional framework for teacher educator modeling. The Lunenberg et al. (2007) framework proved useful in this study, as it articulates a range of modeling types from implicit modeling to advanced forms of explicit modeling. However, the Lunenberg et al. (2007) framework only describes *how* teacher educators can model. The framework does not take into account that teacher educator modeling types may vary given *what* the instructors are modeling, or what the instructors believe about modeling. This is an important consideration, since the instructors in this study connected their modeling practices to different goals of teacher education. The New Jersey Department of Education describes such goals in documents including the New Jersey Professional Standards for Teachers (2014b), where the standards are

grouped into three domains: performances, essential knowledge, and critical dispositions. Though the distinction between teacher performances, essential knowledge, and critical dispositions is artificial, as these elements are inherently interrelated, a review of the literature reveals that instructors in different aspects of teacher education sometimes emphasize one domain over the others. For example, methods instructors often focus on developing performances or skills tied to pre-service teachers' specific content areas (Grossman et al., 2009), while foundations instructors see their courses as sites where pre-service teachers primarily learn about critical dispositions and knowledge related to social change (Edmundson & Greiner, 2005). As the data in this study show, instructors who emphasized the modeling of dispositions tended to model implicitly, whereas the instructors who emphasized modeling performances or pedagogical tools were more likely to explicitly model. These findings may indicate that certain modeling types are more closely aligned with particular goals of foundations instructors, and that an instructor's goals can drive her decision-making regarding the range of modeling types that she employs. For instance, it may seem unnatural, disruptive, or beside the point for an instructor to explicitly call attention to a critical disposition that she has implicitly modeled in class (thus engaging in explicit modeling), but it may be more natural or relevant to explicitly model a particular strategy and then offer meta-commentary on the decision to use that specific strategy. Thus, in the future, researchers might consider how an instructor's goals and objectives affect her pedagogical decisions related to modeling and propose a new framework that supports a deeper and more nuanced understanding of modeling for teacher educators.

Conclusion

I designed this study to explore teacher educator modeling, a pedagogical practice that facilitates pre-service teacher learning (Braga & Liversedge, 2017; Daniel, 2011; Hogg & Yates,

2013; Korthagen et al., 2006; White, 2011). Given the current shift in teacher education towards practice-based pedagogies (Grossman, 2018), teacher educator modeling is often recommended as a practice to strengthen pre-service teacher education (Korthagen et al., 2006; McGrew, Alston, & Fogo, 2018; The National Council for Accreditation of Teacher Education, 2008; The Association for Teacher Educators, 2008). While many professional organizations, scholars, and practitioners emphasize the importance of teacher educator modeling, research on teacher educators' modeling practices, especially in foundations courses, is sparse. The scant literature reviewed in this study, coupled with my experiences as a K-12 teacher, reveal a problem: teacher educators do not consistently and explicitly model the instructional practices that pre-service teachers need to enact as future K-12 instructors. Thus, my study sought to investigate this problem of practice by exploring what foundations instructors believe about teacher educator modeling, how they model effective instructional practices in their foundations courses, and the relationship between their beliefs and practices.

To explore these questions, I employed a multi-case study approach with four instructors who taught courses in the Urban Social Justice Core at the Rutgers Graduate School of Education. By observing the instructors and conducting pre- and post-observation interviews with them, I found that the instructors had favorable views of teacher educator modeling, though they understood the term "teacher educator modeling" differently. Some instructors believe that teacher educators must model the pedagogical practices and thinking that pre-service teachers will later need to enact, while other instructors discuss teacher educator modeling as it relates to the dispositions and knowledge that teachers must possess. Concerning practice, the instructors consistently practiced implicit modeling across their observations, regularly demonstrating effective instructional practices in their teaching. However, explicit modeling types were

practiced less frequently, even though scholars believe that explicit modeling promotes pre-service teacher learning more effectively than implicit modeling (Loughran & Berry, 2005; McGrew, Alston, & Fogo, 2018). Overall, the data reveal a relationship between instructors' differing beliefs and the variation in the instructors' practice. The instructors who expressed a desire to model the practices and pedagogical thinking necessary for K-12 teaching were more likely to explicitly model, whereas the instructors who emphasized how teacher educators model dispositions were more likely to implicitly model. This study thus deepens our understanding of what modeling practices look like in foundations courses and the beliefs associated with those practices.

In conclusion, this study advances the conversation about teacher educator modeling by exploring the relationship between the instructors' beliefs and practices related to teacher educator modeling, which has yet to be studied in great depth by other researchers. With further research on teacher educator modeling, we may be better able to design professional learning experiences that promote the explicit modeling of effective instruction. Ultimately, by improving professional learning experiences related to teacher educator modeling, we may be able to strengthen the pedagogical practices of foundations instructors, better prepare pre-service teachers to face the climate of hyper-accountability in their future K-12 classrooms, and more successfully equip pre-service teachers to provide high-quality, effective instruction to their future students.

References

About edTPA. (n.d.). Retrieved from http://edtpa.aacte.org/faq

Adler, S. (1991). The reflective practitioner and the curriculum of teacher education. *Journal of Education for Teaching*, *17*(2), 139-150.

Admiraal, W., van Vugt, F., Kranenburg, F., Koster, B., Smit, B., Weijers, S., & Lockhorst, D. (2017). Preparing pre-service teachers to integrate technology into K–12 instruction: evaluation of a technology-infused approach. *Technology, Pedagogy and Education*, *26*(1), 105-120.

Aleccia, V. (2011). Walking our talk: The imperative of teacher educator modeling. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas, 84*(3), 87. doi:10.1080/00098655.2010.524951

Appleyard, N., & McLean, L. R. (2011). Expecting the exceptional: Pre-service professional development in global citizenship education. *International Journal of Progressive Education*, *7*(2), 6-32.

Averill, R., Anderson, D., & Drake, M. (2015). Developing culturally responsive teaching through professional noticing within teacher educator modelling. *Mathematics Teacher Education and Development*, *17*(2), 64-83.

Ball, D., & Forzani, F. M. (2009). The work of teaching and the challenge for teacher education. *Journal of Teacher Education*, *60*(5), 497-511.

Bandura, A. (1971). *Social learning theory*. New York: General Learning Press.

Blume, R. (1971). Humanizing teacher education. *The Phi Delta Kappan, 52*(7), 411-415. Retrieved from http://www.jstor.org/stable/20372937

Boyd, D., Goldhaber, D., Lankford, H., & Wyckoff, J. (2007). The effect of certification and preparation on teacher quality. *The Future of Children*, 45-68.

Boyd, P., & Harris, K. (2010). Becoming a university lecturer in teacher education: expert school

teachers reconstructing their pedagogy and identity. *Professional Development in

Education*, *36*(1-2), 9-24.

Braga, L., & Liversedge, P. (2017). Challenges and facilitators to the implementation of a sport

education season: The voices of teacher candidates. *Physical Educator*, *74*(1), 19-40.

doi:10.18666/TPE-2017-V74-I1-6862

Bransford, J. D., Brown, A. L, and Cocking, R. R. (Eds.). (2000). *How people learn: Brain,

mind, and experience*. Washington, D.C.: National Academy Press.

Brenner, M. E. (2006). Interviewing in educational research. In J.L. Green, G. Camilli, & P.B.

Elmore (Eds.), *Handbook of complementary methods in education research*, (pp. 357-

370). Washington, D.C.: Lawrence Erlbaum Associates.

Bronkhorst, L. H., Meijer, P. C., Koster, B., & Vermunt, J. D. (2011). Fostering meaning-

oriented learning and deliberate practice in teacher education. *Teaching and Teacher

Education*, *27*(7), 1120-1130.

Buchanan, R. (2015). Teacher identity and agency in an era of accountability. *Teachers and

Teaching, 21*(6), 700-20. doi:10.1080/13540602.2015.1044329

Bullock, S. M., & Christou, T. (2009). Exploring the radical middle between theory and practice:

A collaborative self-study of beginning teacher educators. *Studying Teacher

Education, 5*(1), 75.

Burke, B. M. (2013). Experiential professional development. *Journal of Experiential

Education, 36*(3), 247-263. doi:10.1177/1053825913489103

Carter, J. H. (2008). On the path to becoming "highly qualified": New teachers talk about

the relevancy of social foundations. *Educational Studies, 44*(3), 222–246. doi: 10.10

80/00131940802511500

Christou, T. (2009). Gone but not forgotten: The decline of history as an educational

foundation. *Journal of Curriculum Studies*, *41*(5), 569-583.

Clark, A. (2015). N.J. to require more classroom time for student teachers. Retrieved from

http://www.nj.com/education/2015/11/nj_to_require_more_classroom_time_for_student_

teac.html

Clarke, D., & Hollingsworth, H. (2002). Elaborating a model of teacher professional

growth. *Teaching and Teacher Education*, *18*(8), 947-967.

Clift, R. T., & Brady, P. (2005). Research on methods courses and field experiences. In M.

Cochran-Smith & K.M. Zeichner (Eds.), *Studying teacher education: The report of the

AERA panel on research and teacher education* (pp. 309-424). Mahwah, NJ: Lawrence

Erlbaum Associates, Inc.

Cochran-Smith, M. (2001). The outcomes question in teacher education. *Teaching and Teacher

Education, 17*(5), 527-546.

Cochran-Smith, M. (2003). Learning and unlearning: The education of teacher

educators. *Teaching and Teacher Education, 19*(1), 5-28. doi:10.1016/S0742-

051X(02)00091-4

Cochran-Smith, M. (2004). Taking stock in 2004: Teacher education in dangerous times. *Journal

of Teacher Education, 55*(1), 3-8.

Cochran-Smith, M., Cannady, M., Pesóla Mceachern, K., Piazza, P., Power, C., & Ryan, A.

(2010). Teachers' education, teaching practice, and retention: A cross-genre review of

recent research. *Journal of Teacher Education, 191*(2), 19-31.

Cochran-Smith, M., & Demers, K. E. (2008). How do we know what we know? Research and

teacher education. In M. Cochran-Smith, S. Feiman-Nemser, D.J. McIntyre, & K.E.

Demers (Eds.), *Handbook of research on teacher education: Enduring questions in

changing contexts* (pp. 1050-1093). New York, NY: Routledge.

Cochran-Smith, M., & Lytle, S. L. (1999). Relationships of knowledge and practice: Teacher

learning in communities. *Review of Research in Education, 24*, 249-305.

Cochran-Smith, M., & Villegas, A. (2015). Framing teacher preparation research: An overview

of the field, part 1. *Journal of Teacher Education, 66*(1), 7-20.

Cohen, L., Manion, L., & Morrison, K. (2007). Observation. In L. Cohen, L. Manion, K.

Morrison, *Research methods in education* (6th Ed., pp. 396-413). New York: Routledge.

Collins, A., Brown, J. S., & Holum, A. (1991). Cognitive apprenticeship: Making thinking

visible. *American Educator*, *15*(3), 6-11.

Creswell, J.W. (2014). *Research design: Qualitative, quantitative and mixed methods

approaches* (4th ed.*)*. Thousand Oaks, CA: Sage.

Creswell, J. W., & Plano-Clark, V. L. (2007). Analyzing data in mixed methods research. In J.

W. Creswell & V. L. Plano-Clark (Eds.), *Designing and conducting mixed methods

research* (pp. 128–135). Thousand Oaks, CA: Sage.

Crowe, E. (2010). *Measuring what matters: A stronger accountability model for teacher

education.* Center for American Progress. Retrieved from https://cdn.american

progress.org/wp-content/uploads/issues/2010/07/pdf/teacher_accountability.pdf

Daniel, E. (2011). To escape the 'finishing the biology syllabus syndrome': An action research

exploratory study in explicit modelling for Malaysian biology teacher training. *Systemic

Practice & Action Research*, *24*(3), 211-236. doi:10.1007/s11213-010-9185-1

Danielson, C. (2013). The framework for teaching evaluation instrument.*1.2*, 1-77. Retrieved

from www.danielsongroup.org

Darling-Hammond, L. (2000). Teacher quality and student achievement: A review of state policy

evidence. *Education Policy Analysis Archives, 8*(1), 1-44. Retrieved

from http://parlinfo.aph.gov.au/parlInfo/search/summary/summary.w3p;query=Id:%22library/jrnart/B3Q16%22

Darling-Hammond, L. (2004). Standards, accountability, and school reform. *Teachers College Record, 106*(6), 1047-1085. doi:10.1111/j.1467-9620.2004.00372.x

Darling-Hammond, L. (2006). *Powerful teacher education: Lessons from exemplary programs*.

San Francisco, CA: Jossey-Bass.

Darling-Hammond, L. (2010a). Evaluating teacher effectiveness: How teacher performance

assessments can measure and improve teaching. *Center for American Progress*.

Darling-Hammond, L. (2010b). Teacher education and the American future. *Journal of Teacher Education*, 61(1-2), 47. doi:10.1177/0022487109348024

Darling-Hammond, L., Wei, R., & Newton, X. (2010). Evaluating teacher education outcomes:

A study of the Stanford Teacher Education Programme. *Journal of Education for Teaching, 36*(4), 369-388. doi:10.1080/02607476.2010.513844

DeLuca, C., Chavez, T., Bellara, A., & Cao, C. (2013). Pedagogies for preservice assessment

education: Supporting teacher candidates' assessment literacy development. *The Teacher Educator*, *48*(2), 128-142.

Ducharme, M. (1996). A study of teacher educators: Research from the USA. *Journal of Education for Teaching*, *22*(1), 57-70.

Edmundson, J., & Greiner, M. B. (2005). Social foundations within teacher education. In D.

    Butin (Ed.), *Teaching social foundations of education: Context, theories and issues* (pp.

    151-166). Mahwah, NJ: Lawrence Erlbaum Associates.

Ellis, M. W., Contreras, J., & Martínez-Cruz, A. M. (2009). The mathematical preparation of

    prospective elementary teachers: Reflections from solving an "interesting

    problem." *Issues in the Undergraduate Mathematics Preparation of School Teachers*, *2*.

Elmore, R. F. (2003). Change and improvement in educational reform. In D.T. Gordon, (Ed.), *A

    nation reformed?* (23-38). Cambridge, MA: Harvard Education Publishing Group.

Feiman-Nemser, S. (2001). From preparation to practice: Designing a continuum to strengthen

    and sustain teaching. *Teachers College Record, 103*(6), 1013-1055.

Floden, R., & Meniketti, M. (2005). Research on the effects of coursework in the arts and

    sciences and in the foundations of education. In M. Cochran-Smith & K.M. Zeichner

    (Eds.), *Studying teacher education: The report of the AERA panel on research and

    teacher education* (pp. 261-287). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Forzani, F. M. (2014). Understanding "core practices" and "practice-based" teacher education:

    Learning from the past. *Journal of Teacher Education*, *65*(4), 357-368.

Fuhrman, S. H. (2003). Riding waves, trading horses: The twenty-year effort to reform

    education. In D.T. Gordon, (Ed.), *A nation reformed?* (7-22). Cambridge, MA: Harvard

    Education Publishing Group.

Ginsberg, R. & Kingston, N. (2014). Caught in a vise: The challenges facing teacher preparation

    in an era of accountability. *Teachers College Record, 116*(1), 1.

Goodwin, A. L. & Kosnik. C. (2013). Quality teacher educators = quality teachers?

conceptualizing essential domains of knowledge for those who teach teachers. *Teacher*

Development, 17(3), 334-346.

Goodwin, A. L., Smith, L., Souto-Manning, M., Cheruvu, R., Tan, M. Y., Reed, R., & Taveras,

L. (2014). What should teacher educators know and be able to do? Perspectives from

practicing teacher educators. *Journal of Teacher Education*, *65*(4), 284-302.

Grossman, P. (2005). Research on pedagogical approaches in teacher education. In M. Cochran-

Smith & K.M. Zeichner (Eds.), *Studying teacher education: The report of the AERA*

panel on research and teacher education (pp. 425-476). Mahwah, NJ: Lawrence Erlbaum

Associates, Inc.

Grossman, P. (2018). *Teaching core practices in teacher education*. Cambridge, MA: Harvard

Education Press.

Grossman, P., Hammerness, K., & McDonald, M. (2009). Redefining teaching, re-imagining

teacher education. *Teachers and Teaching, 15*(2), 273. doi:10.1080/13540600902875340

Grossman, P., Kavanagh, S.S., & Pupik Dean, C.G. (2018). The turn towards practice in teacher

education. In P. Grossman (Ed.), *Teaching core practices in teacher education* (pp. 1-

14). Cambridge, MA: Harvard Education Press.

Grossman, P., McDonald, M., Hammerness, K., & Ronfeldt, M. (2008). Dismantling

dichotomies in teacher education. In M. Cochran-Smith, S. Feiman-Nemser, D.J.

McIntyre, & K.E. Demers (Eds.), *Handbook of research on teacher education: Enduring*

questions in changing contexts (pp. 243-248). New York, NY: Routledge.

Guskey, T. R. (1986). Staff development and the process of teacher change. *Educational*

Researcher, *15*(5), 5-12.

Hammersley-Fletcher, L., & Orsmond, P. (2004). Evaluating our peers: is peer observation a

    meaningful process? *Studies in Higher Education*, *29*(4), 489–503. https://doi-

    org.proxy.libraries.rutgers.edu/10. 108010307507042000236380

Harbour, K. E., Evanovich, L. L., Sweigart, C. A., & Hughes, L. E. (2015). A brief review of

    effective teaching practices that maximize student engagement. *Preventing School*

    Failure: Alternative Education for Children and Youth, *59*(1), 5-13.

Hardee, S. C., & McFaden, K. (2015). (Re) imagining our foundations: one social foundations of

    education program's attempt to reclaim, reestablish, and redefine itself. *The Journal of*

    Educational Foundations, 28(1-4), 31.

Hays, D., & Singh, A. (2011). *Qualitative inquiry in clinical and educational settings*. New

    York, NY: Guilford Press.

Herlihy, C., Karger, E., Pollard, C., Hill, H., Kraft, M., Williams, M., & Howard. S. (2014). State

    and local efforts to investigate the validity and reliability of scores from teacher

    evaluation systems. *Teachers College Record, 116*(1), 1-28.

Hogg, L. & Yates, Y. (2013). Walking the talk in initial teacher education: Making teacher

    educator modeling effective. *Studying Teacher Education, 9*(3), 311.

Hug, B., & Möller, K. J. (2005). Collaboration and connectedness in two teacher educators'

    shared self-study. *Studying Teacher Education*, *1*(2), 123-140.

Jarvis, J., Dickerson, C., Thomas, K., & Graham, S. (2014). The action--reflection--modelling

    (ARM) pedagogical approach for teacher education: A Malaysia-UK project. *Australian*

    Journal of Teacher Education, *39*(3), n3.

Kennedy, M. (1999) The role of preservice teacher education. In L. Darling-Hammond and G.

Sykes (Eds). *Teaching as the learning profession: Handbook of teaching and policy*. (pp.

54-86). San Francisco: Jossey Bass.

Kennedy, M. (2016). Parsing the practice of teaching. *Journal of Teacher Education*, *67*(1), 6-

17.

Knowles, M. S. (1970). *The modern practice of adult education.* New York: New York

Association Press.

Kolb, D. A. (2014). Introduction. In *Experiential learning: Experience as the source of learning

and development* (2nd ed.). New Jersey: FT press.

Korthagen, F. A. (2004). In search of the essence of a good teacher: towards a more holistic

approach in teacher education. *Teaching and Teacher Education*, *20*, 77-97.

Korthagen, F., Loughran, J., & Lunenberg, M. (2005). Teaching teachers—studies into the

expertise of teacher educators: An introduction to this theme issue. *Teaching and Teacher

Education, 21*(2), 107-115. doi:10.1016/j.tate.2004.12.007

Korthagen, F., Loughran, J., & Russell, T. (2006). Developing fundamental principles for teacher

education programs and practices. *Teaching and Teacher Education, 22*(8), 1020-1041.

doi:10.1016/j.tate.2006.04.022

Kosnik, C., Cleovoulou, Y., Fletcher, T., Harris, T., McGlynn-Stewart, M., & Beck, C. (2011).

Becoming teacher educators: An innovative approach to teacher educator preparation.

Journal of Education for Teaching, *37*(3), 351-363.

Lake, V. E., Jones, I., & Dagli, U. (2004). Handle with care: Integrating caring content in

mathematics and science methods classes. *Journal of Research in Childhood

Education*, *19*(1), 5-17.

Lauer, P. A. (2004). A policymaker's primer on education research: How to understand, evaluate

     and use it. *Mid-continent Research for Education and Learning (McREL)*.

Lortie, D. C. (1975). *School teacher: A sociological inquiry*. Chicago: University of Chicago

     Press.

Loughran, J. (1997). Teaching about teaching: Principles and practice. In J. Loughran & T.

     Russell (Eds.), *Teaching about teaching: Purpose, passion and pedagogy in teacher*

     education, 57-69.

Loughran, J. (2008). Toward a better understanding of teaching and learning about teaching. In

     M. Cochran-Smith, S. Feiman-Nemser, D.J. McIntyre, & K.E. Demers (Eds.), *Handbook*

     of research on teacher education: Enduring questions in changing contexts (pp. 1177–

     1182). New York, NY: Routledge.

Loughran, J., & Berry, A. (2005). Modelling by teacher educators. *Teaching and Teacher*

     Education, 21(2), 193-203. doi:10.1016/j.tate.2004.12.005

Lunenberg, M., Korthagen, F., & Swennen, A. (2007). The teacher educator as a role

     model. *Teaching and Teacher Education, 23*(5), 586-601. doi:10.1016/j.tate.2006.11.001

Martinez, K. (2008). Academic induction for teacher educators. *Asia‑Pacific Journal of Teacher*

     Education, *36*(1), 35-51.

Mathewson Mitchell, D., & Reid, J. (2017). (Re)turning to practice in teacher education:

     embodied knowledge in learning to teach. *Teachers & Teaching*, *23*(1), 42-58.

     doi:10.1080/13540602.2016.1203775

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.

McGrew, S., Alston, C., & Fogo, B. (2018). Modeling as an example of representation. In P.

Grossman (Ed.), *Teaching core practices in teacher education* (pp. 35-55). Cambridge,

MA: Harvard Education Press.

McKeon, F., & Harrison, J. (2010). Developing pedagogical practice and professional identities

of beginning teacher educators. *Professional development in education*, *36*(1-2), 25-44.

Merriam, S. (1998). *Qualitative research and case study applications in education (Rev. Ed.).*

San Francisco, CA: Jossey-Bass Publishers.

Merriam, S. (2009). *Qualitative research: A guide to design & implementation.* San Francisco:

Jossey-Bass.

Merriam, S. B., Caffarella, R. S., & Baumgartner, L. M. (2007). *Learning in adulthood: A

comprehensive guide*. San Francisco: Jossey-Bass.

Murray, J. (2005). Re-addressing the priorities: New teacher educators and induction into higher

education. *European Journal of Teacher Education, 28*(1), 67-85.

doi:10.1080/02619760500040108

Murray, J., & Male, T. (2005). Becoming a teacher educator: Evidence from the field. *Teaching

and Teacher Education, 21*(2), 125-142. doi:10.1016/j.tate.2004.12.006

National Council on Teacher Quality. (2013). *Teacher prep policies*. Retrieved from

https://www.nctq.org/dmsView/Teacher_Prep_Review_2013_Report

Nelson, T.H., Slavit, D., Perkins, M., & Hathorn, T. (2008). A culture of collaborative inquiry:

Learning to develop and support professional learning communities. *Teachers College

Record, 110*(6), 1269-1303.

New Jersey Department of Education. (n.d.). *2013-14 Preliminary implementation report on*

teacher evaluation. Retrieved from http://www.nj.gov/education/AchieveNJ/resources/13-

14preliminaryteacherevalreport.pdf

New Jersey Department of Education. (2014a). 2014 *Educator preparation provider annual*

reports. Retrieved from

http://www.state.nj.us/education/educators/rpr/preparation/providers/overview.pdf

New Jersey Department of Education. (2014b). *New Jersey professional standards for*

teachers. Retrieved from

https://www.state.nj.us/education/profdev/profstand/ProfStandardsforTeachersAlignmentw

ithInTASC.pdf

New Jersey Department of Education (2015a). *Changes to teacher certification requirements.*

Retrieved from

http://www.nj.gov/education/educators/license/UpdatedCertChanges.pdf

New Jersey Department of Education. (2015b). *Overview of AchieveNJ.* Retrieved from

http://www.state.nj.us/education/AchieveNJ/intro/guide.pdf

New Jersey Department of Education. (2016*). Educator preparation provider performance*

report 2016 Rutgers - GSE - New Brunswick. Retrieved from

http://www.nj.gov/education/educators/rpr/preparation/providers/2016/RutgersGSE/EPP.

pdf

New Jersey Department of Education (2017). *Educator preparation provider performance report*

2017: Rutgers - GSE - New Brunswick report. Retrieved from

http://www.state.nj.us/education/educators/rpr/preparation/providers/2017/RutgersGSE/

EPP.pdf

New Jersey Department of Education (2017). *Educator Recruitment, Preparation, and*

    Recognition. Retrieved from

    http://www.nj.gov/education/educators/rpr/preparation/assessment/

Pajares, M. F. (1992). Teachers' beliefs and educational research: Cleaning up a messy

    construct. *Review of Educational Research*, *62*(3), 307-332.

 Patton, M. Q. (1990). *Qualitative evaluation and research methods* (pp. 277-367). Thousand

    Oaks, CA: Sage.

Patton, M. Q. (2002). Qualitative interviewing. In M. Q. Patton (Ed.). *Qualitative research and*

    evaluation methods (3rd. Ed.) (pp. 339-427). Thousand Oaks: Sage.

Pianta, R., & Kerr, K. A. (2014). Conclusion: Measuring effective teaching—The future

    starts now. In T. Kane, K. Kerr & R. Pianta (Eds.), *Designing teacher evaluation*

    systems: New guidance from the measures of effective teaching project (pp. 1-616). San

    Francisco: Jossey-Bass.

Putnam, R. T., & Borko, H. (2000). What do new views of knowledge and thinking have to say

    about research on teacher learning? *Educational Researcher*, *29*(1), 4-15.

Rinke, C. R., Mawhinney, L., & Park, G. (2014). The apprenticeship of observation in career

    contexts: a typology for the role of modeling in teachers' career paths. *Teachers and*

    Teaching, *20*(1), 92-107.

Ritter, J. K. (2007). Forging a pedagogy of teacher education: The challenges of moving from

    classroom teacher to teacher educator. *Studying Teacher Education*, *3*(1), 5-22.

Ritter, J. K. (2012). Modeling powerful social studies: Bridging theory and practice with

    preservice elementary teachers. *Social Studies*, 103(3), 117-124.

    doi:10.1080/00377996.2011.596857

Rutgers Graduate School of Education (2017). *About the school.* Retrieved from

https://gse.rutgers.edu/about/our-students

Rutgers University (2017). *Facts & figures.* Retrieved from

https://www.rutgers.edu/about/facts-figures

Ruys, I., Defruyt, S., Rots, I., & Aelterman, A. (2013). Differentiated instruction in teacher

education: A case study of congruent teaching. *Teachers and Teaching*, *19*(1), 93-107.

Santangelo, T., & Tomlinson, C. A. (2012). Teacher educators' perceptions and use of

differentiated instruction practices: An exploratory investigation. *Action in Teacher

Education, 34*(4), 309-327. doi:10.1080/01626620.2012.717032

Scrabis-Fletcher, K., Juniu, S., & Zullo, E. (2016). Preservice physical education teachers'

technological pedagogical content knowledge. *Physical Educator*, *73*(4), 704-718.

doi:10.18666/TPE-2016-V73-I4-6818

Shulman, L. S. (1986). Those who understand: Knowledge growth in teaching. *Educational

Researcher*, *15*(2), 4-14.

Shulman, P. (2015). *Update to proposed changes to teacher preparation and certification

requirements.* Retrieved from http://www.nj.gov/education/educators/rpr/

preparation/060315Chapter9ProposalMemo.pdf

Silberman, M. & Auerbach, C. (2006). *Active training: A handbook of techniques, designs, case

examples, and tips* (3rd ed.). San Francisco: Pfeiffer.

Smith, K. (2005). Teacher educators' expertise: What do novice teachers and teacher educators

say? *Teaching and Teacher Education, 21*, 177-192. doi:10.1016/j.tate.2004.12.008

Smith, M. S., & O'Day, J. (1991). Systemic school reform. In S. H. Fuhrman, & B. Malen

(Eds.), *The politics of curriculum and testing: The 1990 yearbook of the politics of

education association* (pp. 233-267). New York: The Falmer Press.

Stoll, L., Bolam, R., McMahon, A., Wallace, M., & Thomas, S. (2006). Professional learning

communities: A review of the literature. *Journal of Educational Change*, *7*(4), 221-258.

Swennen, A., Lunenberg, M., & Korthagen, F. (2008). Preach what you teach! Teacher educators

and congruent teaching. *Teachers and Teaching*, *14*(5-6), 531-542.

The Association of Teacher Educators. (2008). *Standards for teacher educators*. Retrieved

from http://www.ate1.org/pubs/uploads/tchredstds0308.pdf

The National Council for Accreditation of Teacher Education (NCATE). (2008). *Unit standards

in effect 2008*. Retrieved from

http://www.ncate.org/Standards/UnitStandards/UnitStandardsinEffect2008/tabid/476/Def

ault.aspx#stnd5

Timmerman, G. (2009). Teacher educators modelling their teachers?. *European Journal of

Teacher Education*, *32*(3), 225-238.

Tozer, S., & Miretzky, D. (2005). Social foundations, teaching standards, and the future of

teacher preparation. In D. Butin (Ed.), *Teaching social foundations of education:

Contexts, theories, and issues* (pp. 3-28). Mahwah, NJ: Lawrence Erlbaum Associates.

Tyack, D. B., & Cuban, L. (1995). *Tinkering toward utopia*. Harvard University Press.

van den Bos, P., & Brouwer, J. (2014). Learning to teach in higher education: How to link theory

and practice. *Teaching In Higher Education*, *19*(7), 772-786.

doi:10.1080/13562517.2014.901952

White, E. (2011). Working towards explicit modelling: Experiences of a new teacher

      educator. *Professional Development in Education, 37*(4), 483-497.

      doi:10.1080/19415257.2010.531628

Wilson, J. D. (1990). The selection and professional development of trainers for initial teacher

      training. *European Journal of Teacher Education, 13*(1-2), 7-24.

      doi:10.1080/0261976900130103

Wood, D. R. (2007). Professional learning communities: Teachers, knowledge, and knowing.

      Theory into Practice, 46(4), 281-290.

Zeichner, K. (1999). The new scholarship in teacher education. *Educational Researcher*, *28*(9),

      4-15.

Zeichner, K. (2012). The turn once again toward practice-based teacher education. *Journal of*

      Teacher Education, *63*(5), 376-382.

Appendix A

ERIC search of teacher educator modeling and modelling [a]	
<u>Count</u>	<u>Keyword search:</u> <u>Teacher educator, modelling, modeling</u>
Initial search results	371
Modeling as pedagogical tool	42
Modeling as pedagogical tool in methods classes [b]	18
Modeling as pedagogical tool in foundations classes [c]	7
Note. All searches were set for peer-reviewed, scholarly works published since 2000. [a] Modeling (American English) and Modelling (British English) [b] Inference based on the researchers' description of the class, i.e. a class for science educators, physical education educators, mathematics educators, etc. [c] Inference based on the researchers' description of the class, i.e. a social foundations of education course, a class on global education, a course entitled "Developing Pedagogy," etc.	

Appendix B

Lunenberg et al. modelling typology	
Modeling Type	Description:
Type 1	Implicit modelling
Type 2	Explicit modelling
Type 3	Explicit modelling and facilitating the translation to the student teachers' own practices
Type 4	Connecting exemplary behaviour with theory

Appendix C

First Interview Protocol

Introduction/Background:

Thank you for agreeing to meet with me! My name is Ashley Warren and I am conducting this interview as part of a research study conducted through Rutgers University. I would like to ask you a few questions about your experiences and beliefs as a professor in the Graduate School of Education. Before we begin, I wanted to let you know that your confidentiality will be protected throughout the duration of this study. That said, for it would be helpful if I could record this interview so that I can transcribe it and study it in the future. May I do so?

General information

1)   Please tell me about your role here in the GSE.

   Probe: How long have you taught here? What courses do you currently teach? What are your responsibilities? Etc.

Teacher Education in the GSE and Beyond

2)   If someone were to ask you if you considered yourself a "teacher educator," how would you respond?

   Probe: What is a teacher educator, in your mind? What, if any, titles do you use to describe your role at the GSE? How is your job similar to or different from teacher educators work?

3) What do you think the role of a teacher educator (or professor of education) should be?

   Probe: What should the aims of the job be? What is an essential part of the job? What do pre-service teachers want from teacher educators?

4) What does a normal lesson in your _____ (foundations) class look like?

   Probe: What do you do in class? What do the students do in class? Can you walk me through a typical lesson?

Effective Instruction

5) If you had to describe what makes a teacher "effective" to someone, what would you say?

   Probe: What does a teacher need to do to be considered an "effective" instructor?

6) What instructional practices do you find to be important when teaching pre-service teachers?

Probe: What techniques, activities, assessments, etc. should teacher educators use when teaching pre-service teachers?

7)   How do you help future teachers to become "effective" K-12 teachers?

Probe: What do you do to support pre-service teachers' transition so that they can become effective in-service teachers?

Conclusion

Well, _____, we have reached the end of our interview and I would like to truly thank you for speaking with me. As we wrap up, do you have any questions or closing comments?

It's been a pleasure!

<div align="center">Second Interview Protocol</div>

Introduction/Background:

Thank you for agreeing to meet with me again! As a reminder, my name is Ashley Warren and I am conducting this interview as part of a research study conducted through Rutgers University. I would like to ask you a few questions about the classes that I observed you instruct at the Graduate School of Education. Before we begin, I wanted to remind you that your confidentiality will be protected throughout the duration of this study. That said, for it would be helpful if I could record this interview so that I can transcribe it and study it in the future. May I do so?

Observation Review

1)   Thank you for letting me observe two of your classes! Can I ask you to describe the learning objective or goal for each of the two lessons?

[Provide a lesson summary (previously sent to the participant via email) to help the participant recall his or her lesson]

Probe: What did you hope that students would know or be able to do at the end of the lesson?

2)   How would you describe the students' ability to meet your objective during the lesson?

Probe: What evidence can you identify in the lesson to explain the students' learning?

Effective Instruction

3)   I am now going to ask you to look at an artifact. Here is a description of effective instruction as defined by the Danielson Framework. When you're ready, I would like you to tell me what parts of this Framework best describe the two observations that we have just discussed.

[Give interviewee the Danielson Domain 3 summary. Allow him/her to write on the paper, and allow him/her as much time as needed to read through the description]

   Probe: Why? Can you provide a specific example to illustrate your point?

4) Now, I would like you to tell me what parts of the Framework were least apparent in the two lessons that we discussed. [Allow him/her to write on the paper, and allow him/her as much time as needed to read through the description]

   Probe: Why do you say that? Can you provide a specific example to illustrate your point?

 Modeling in Teacher Education

5)   I am going to read you an excerpt from the first standard found in The Association for Teacher Educators' standards for teacher educators:
   The "effective modeling of desired practices is at the heart of successful teacher education programs at pre-service and in-service levels."
How do you understand that standard in light of your work here in the GSE?

   Probe: How is modeling viewed in the GSE? Why do you say that?

6)   What, if anything, supports your ability to model effective instruction in the classroom?

   Probe: What helps you to model effective instruction in the classroom? Are there instructional supports or institutional supports? Perhaps formal or informal professional development experiences, your own research, field work, advising responsibilities, etc.

7)   What, if anything, challenges your ability to model effective instruction in the classroom?

   Probe: What makes modeling effective instruction in the classroom difficult? Are there instructional barriers or institutional barriers? Perhaps distance from the K-12 classroom, lack of professional development, etc. Said differently: What makes it difficult to model effective instruction for your pre-service students?

8)   I am now going to ask you to look at another artifact. This chart describes different types of modeling that teacher educators can demonstrate in their classrooms. What descriptions describe any modeling you may have done in the two observations that we discussed? [Give interviewee the Lunenberg et al. chart and allow him/her to write on the paper, and allow him/her as much time as needed to read through the description]

   Probe: Why do you say that? Can you provide a specific example to illustrate your point?

9)   What modeling descriptions, if any, represent areas that you do not remember enacting in the two lessons that we discussed? [Allow him/her to write on the paper, and allow him/her as much time as needed to read through the description]

Probe: Why do you say that? Can you provide a specific example to illustrate your point?

Conclusion

Well, _____, we have reached the end of our interview and I would like to truly thank you for speaking with me. As we wrap up, do you have any questions or closing comments?

It's been a pleasure!

Appendix D

The Framework For Teaching Evaluation Instrument (Danielson, 2013)

Domain 3	Proficient Description
3A: Communicating with students	The instructional purpose of the lesson is clearly communicated to students, including where it is situated within broader learning; directions and procedures are explained clearly and may be modeled. The teacher's explanation of content is scaffolded, clear, and accurate and connects with students' knowledge and experience. During the explanation of content, the teacher focuses, as appropriate, on strategies students can use when working independently and invites student intellectual engagement. The teacher's spoken and written language is clear and correct and is suitable to students' ages and interests. The teacher's use of academic vocabulary is precise and serves to extend student understanding.
3B: Using questioning and discussion techniques	While the teacher may use some low-level questions, he poses questions designed to promote student thinking and understanding. The teacher creates a genuine discussion among students, providing adequate time for students to respond and stepping aside when doing so is appropriate. The teacher challenges students to justify their thinking and successfully engages most students in the discussion, employing a range of strategies to ensure that most students are heard.
3C: Engaging students in learning	The learning tasks and activities are fully aligned with the instructional outcomes and are designed to challenge student thinking, inviting students to make their thinking visible. This technique results in active intellectual engagement by most students with important and challenging content and with teacher scaffolding to support that engagement. The groupings of students are suitable to the activities. The lesson has a clearly designed structure, and the pacing of the lesson is appropriate, providing most students the time needed to be intellectually engaged.
3D: Using assessment in instruction	Students appear to be aware of the assessment criteria, and the teacher monitors student learning for groups of students. Questions and assessments are regularly used to diagnose evidence of learning. Teacher feedback to groups of students is accurate and specific; some students engage in self-assessment.
3E: Demonstrating flexibility and responsiveness	The teacher successfully accommodates students' questions and interests. Drawing on a broad repertoire of strategies, the teacher persists in seeking approaches for students who have difficulty learning. If impromptu measures are needed, the teacher makes a minor adjustment to the lesson and does so smoothly.

Appendix E

Modelling Types (Lunenberg, Korthagen, & Swennen, 2007)

Modelling Types	Descriptions
Modelling Type 1: Implicit modelling	• Any instance where teacher educators "walk the talk" and act as examples for their students.
Modelling Type 2: Explicit modelling	• Any instance of 'meta-commentary' or comments wherein educators make explicit the choices they make while teaching and why.
Modelling Type 3: Explicit modelling & facilitating translation to the student teachers' own practices	• Any instance wherein the educators connect modeled behavior in the teacher education classroom to the prospective teachers' own practices
Modelling Type 4: Connecting exemplary behaviour with theory	• Any instance wherein the educators establish links between their practice and public or educational theory.

Appendix F

Initial Deductive Codes	
Code/sub-code	Definition
• 3A Communicating with students	• Any example that connects to the four elements of domain 3a: 1) setting expectations for learning, 2) giving directions for activities, 3) providing explanations of content, and 4) modeling appropriate oral and written language
• 3B Using questioning and discussion techniques	• Any positive or negative example that connects to the three elements of domain 3b: 1) quality of questions/prompts, 2) discussion techniques and 3) student participation
• 3C Engaging students in learning	• Any positive or negative example that connects to the four elements of domain 3c: 1) activities and assignments, 2) grouping of students, 3) instructional materials and resources, 4) structure and pacing
• 3D Using assessment in instruction	• Any positive or negative example that connects to the four elements of domain 3d: 1) assessment criteria, 2) monitoring of student learning, 3) feedback to students, and 4) student self-assessment and monitoring of progress
• 3E Demonstrating flexibility and responsiveness	• Any positive or negative example that connects to the three elements of domain 3e: 1) lesson adjustment, 2) response to students, and 3) persistence
• Modeling Type 1: Implicit modeling	• Any instance where teacher educators "walk the talk" and act as examples for their students.
• Modeling Type 2: Explicit modeling	• Any instance of 'meta-commentary' or comments wherein educators make explicit the choices they make while teaching and why.
• Modeling Type 3: Explicit modeling & facilitating translation to the student teachers' own practices	• Any instance wherein the educators connect modeled behavior in the teacher education classroom to the prospective teachers' own practices
• Modeling Type 4: Connecting exemplary behavior with theory	• Any instance wherein the educators establish links between their practice and public or educational theory.