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LOCUS AND PRAXIS IN THE DENVER TEACHER RESIDENCY

by

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M.A., Liberal Arts, St. John's College, 2000

DISSERTATION

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LOCUS AND PRAXIS IN THE DENVER TEACHER RESIDENCY

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ABSTRACT

The purpose of this qualitative study was to explore the concepts of praxis and locus as they pertain to teacher education practices and novice learning in the Denver Teacher Residency Program. The term locus was meant to suggest a nuanced and comprehensive way to consider the K-12 school and classroom as *the* essential location for learning to teach. The term praxis referred to adaptive expertise, or practical reasoning, problem solving, and wisdom informed by theory in practice. An analytical case study investigated two research questions: 1) In what ways is teacher learning deliberately located in the clinical setting of a K-12 classroom? 2) In what ways do clinical practices, learning experiences, and curricula develop the capacity for praxis in residents? An emergent research design for this case study included extended fieldwork and interim data analysis. Data collection included interviews with, and observations of program participants (residents, instructors, field coordinators, mentor teachers, program administrators), as well as document review (e.g., curricular documents, assignment descriptions, assigned texts).

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Chapter 1

Introduction

> Teacher education still has the honor of being simultaneously the worst problem and the best solution in education.
>
> —Michael Fullan, *Change Forces,* 1993

The epigraph above perfectly captures the complex, challenging, and promising project that is teacher education. School is compulsory, and few institutions reach as deeply into our lives. Teaching is one of the country's largest professions, employing 3.2 million K-12 educators (Feistritzer, 2011) and serving nearly 50 million students (Sykes, Bird, & Kennedy, 2010). Though citizens of the United States infrequently reach consensus, many agree on the general value of education (Anderson, 2001). Politicians and teacher educators contend that providing a highly qualified teacher for every classroom is the single most important in-school solution for improving educational outcomes (Cochran-Smith & Zeichner, 2005; Darling-Hammond, 2005; Feiman-Nemser & Norman, 2000). The nation's signature education legislation, No Child Left Behind [NCLB] (2001) is predicated on this notion (Cochran-Smith & Zeichner, 2005; Darling-Hammond, 2005; Whitcomb, Borko, & Liston, 2009).

The federal government, as well as a host of non-governmental organizations, has regularly attempted to improve teacher education. For example, in response to the Soviet launch of Sputnik in 1957, Congress passed the National Defense Education Act (1958). Further efforts to reform teacher education followed: *A Nation at Risk* (National Commission of Excellence in Education, 1983), NCLB (2001), and Race to the Top (2009). Yet the profession does not currently have a consistently effective or common

preparation pathway, and teacher education still more resembles a problem than a solution (Sykes et al., 2010; Whitcomb et al., 2009). Another frequently cited concern is attrition. "Almost a quarter of entering public-school teachers leave teaching within their first three years" (Donald, Grossman, Lankford, Loeb, & Wyckoff, 2008, p. 1). Nearly half leave within five years (Kopowski, 2008). It is interesting that attrition rates for "teachers with greater initial preparation" are lower (Darling-Hammond, 2010, p. 37). By many estimates, the cost of attrition is significant, in the range of billions annually (Darling-Hammond, 2006b; Kopowski, 2008). Another concern is that non-majority students in poor and urban schools are least likely to have highly qualified teachers (Boggess, 2010; Cochran-Smith, 2004; Ross, Halsell, Howie, & Vescio, 2007). Arguably, teacher education could perform better (Berry, 2010; National Council for Accreditation of Teacher Education [NCATE], 2010).

There are many and diverse pathways to teaching. In addition to programs offered at universities, private and community colleges, candidates may enter the field through a range of alternative programs, such as Teach for America (Teach for America, 2013) and Troops to Teachers (Troops to Teachers, 2013). As a result of deregulation, state-sanctioned alternative preparation programs actually allow novices to begin teaching without any preparation or practicum (Darling-Hammond, 2010). For example, the New Mexico Intern license permits teachers to assume responsibility as teacher of record if they hold a BA, pass the state teacher exam, and enroll in an alternative licensure program or complete an online portfolio assessment (New Mexico Public Education Department, 2013). A common rationale offered for alternative licensure programs is to meet workforce demand: "It is anticipated that the number of teachers graduating from

traditional university teacher education programs will be far short of the number needed to replace retiring teachers" (Teach New Mexico, 2013). Traditional programs housed at universities are not without flaws. In fact, "the struggles of both traditional and alternative certification are well known" (Berry, Montgomery, & Snyder, 2008, p. 1).

The current study examined an emergent model for teacher education, the Urban Teacher Residency (UTR) (Berry, Montgomery, Curtis, Hernandez, Wurtzel, & Snyder, 2008; Berry, Montgomery, & Snyder, 2008; Papay, West, Fullerton, & Kane, 2012; Sykes et al., 2010; U. S. Department of Education, 2010). The UTR is modeled on the Professional Development School (PDS) (Shakespear, Beardsley, & Newton, 2003). In its program structure, the UTR addresses the persistent challenges of urban teacher preparation: the recruitment, training, and retention of highly qualified teachers, especially non-majority teachers (Solomon, 2009; Urban Teacher Residency United, 2013). The UTR is distinguished by a robust clinical design and a paid, year-long practicum, both of which address reform goals of The National Council for Accreditation of Teacher Education (NCATE) as framed in its Blue Ribbon Panel Report (2010).

This first chapter of the dissertation introduces the study, provides background, describes the research problem, and explains the study's significance. The chapter will conclude by noting delimitations of the study and explaining the organization of the dissertation.

Background of the Study

A persistent theme in teacher education discourse revolves around its comparison to other professions. Historians have wondered why education seemed to fair more poorly than other professions (e.g., medicine, law, theology) in moving its preparation to

the university (Clifford & Guthrie, 1988; Fraser, 2007; Labaree, 2004). These inquiries, in addition to important sociological and ethnographic studies, (Lave & Wenger, 1991; Lortie, 1975), helped teacher educators to identify what is unique about teaching as a profession, how learning to teach differs from learning other professions, and how preparation programs might best be designed. Medical education is much more clinical in nature, and explorations of what could be learned from the teaching hospital have been the subject of inquiries since the publication of the Flexner Report (1910). Medical education generally revolves around the observation and treatment of actual patients, and is supplemented by scientific and laboratory studies. In contrast, teacher preparation typically revolves around theoretical studies in university classrooms, supplemented by a clinical component (Clifford & Guthrie, 1988). In teacher preparation, theoretical studies are generally not well integrated with clinical experiences, novices do not seem to apply research and theory in their classrooms, and novice learning is therefore compromised (Anagnostopoulos, Smith, & Basmadjian, 2007; Borko, Liston, & Whitcomb, 2009; Darling-Hammond, 2006b; Darling-Hammond & Bransford, 2005; Fullan, Galluzzo, Morris, & Watson, 1998; Hagger & McIntyre, 2006; Korthagen & Kessels, 1999).

This was not always the case. In teacher education, two developments in the first 150 years (1830-1980) of its history were seminal. First, teacher preparation began in *normal* schools, which were created to supply the expanding corps of teachers needed for mandatory, state-funded public schooling (Fraser, 2007). Their design was based on the French école normale:

> The average normal school of 1900 may be seen as offering something like the last 2 years of high school and the first 2 years of college to those students who

were willing to take the advanced courses and complete the program. (Fraser, 2007, p. 120)

Although normal schools varied widely across the country and over the course of their existence, ideally they offered a clinical form of preparation in which novices acquired subject knowledge and pedagogy, while simultaneously observing and practicing teaching with actual students, under one roof, much as medical students learn to practice medicine in a teaching hospital (Fraser, 2007).

Second, by 1960, the normal school had given way to state teachers colleges, which eventually became colleges of education housed at large multipurpose universities. Scholars have thoroughly explored the problematic consequences of establishing teacher education at the university (Clifford & Guthrie, 1988; Goodlad, 1999; Judge, 1982). The English educator, Judge (1982), famously described the arrangement as resting upon "a deeply institutionalized error" (p. 34). This critique resonated with American teacher educators, many of whom agreed that "the individual parts of teacher preparation— subject matter preparation lodged in the disciplines, educational coursework in the schools of education, and practice teaching in the schools— could not be made to cohere" (Sykes et al., 2010, p. 466). By the early 1980s, many teacher educators came to view "reforming the triangular relationships between public school professionals, schools of education and universities" as a critical step in reforming teacher preparation (Clifford & Guthrie, 1988, p. x).

A recommendation of an influential report, *A Nation Prepared* (Carnegie Task Force on Teahing as a Profession, 1986) was to establish clinical schools, which would enhance the field experience, and help to integrate practice and theory:

> *Clinical* schools, selected from among public schools and staffed for preparation of teachers, must be developed to make this successful. These institutions, having an analogous role to teaching hospitals, should be outstanding public schools working closely with schools of education. (Carnegie Task Force on Teaching as a Profession, 1986, p. 76)

The suggestion to make teacher education more clinical in nature was further supported by The Holmes Group report, *Tomorrow's Teachers* (1986). At the heart of this proposal to enhance the profession and rejuvenate teacher education was the Professional Development School (PDS). The PDS was meant to solve problems associated with what had become the conventional preparation model, in which university coursework was insufficiently integrated with a clinical component in a nearby district school.

The PDS was based on the medical residency; novices would learn to teach in a K-12 school under the guidance of exemplary mentors, and perhaps more readily apply scientific methods and theory delivered at the university to the practical challenges of teaching in a classroom. "They [PDSs] were envisioned as institutional settings that would be both models of best P-12 practice and optimum sites for clinical preparation of novice teachers" (Abdal-Haqq, 1998, p. 2).

Emphasis on a clinical, or practice-based form of teacher preparation is again gaining steam (Berry, 2010; Howey, 2010; Howey & Zimpher, 2010; Zeichner, 2012; Zeichner & McDonald, 2011). Leading teacher educators now argue, "clinical experiences should be the central focus of preservice teacher education from which everything else in a program emanates" (Zeichner, 2010, p. 4).

In addition to this historical legacy, a number of theoretical issues impact teacher

education. Two phenomena must be accounted for: the *apprenticeship of observation* (Lortie, 1975), and the *complexity* of effective teaching (Darling-Hammond, 2006b; Labaree, 2004). Apprenticeship of observation is a phenomenon unique to teacher education. In no other profession have novices spent 16 or more years passively observing practitioners prior to formal preparation. This has a "special occupational effect on those who move to the other side of the desk. There are ways in which being a student is like serving an apprenticeship in teaching; students have protracted face-to-face and consequential interactions with established teachers" (Lortie, 2002, p. 61). Unlike the case in a genuine apprenticeship, a student's role is limited to that of a passive observer. This leads to the harmful misunderstanding that teaching is easy (Lortie, 1975).

A second reality for the profession relates to the first. Although some view teaching as a relatively simple endeavor, it is complex, especially today. Though many professions are complex, teaching seems to be characterized by an *irreducible complexity* (Labaree, 2004). Whereas subject knowledge was once the primary qualification of a teacher, today effective teachers must draw on a wider range of skills and knowledge bases:

> Teaching is grounded in the necessity of motivating cognitive, moral, and behavioral change in a group of involuntary and frequently resistant clients. It depends heavily on a teacher's ability to construct an effective and authentic teaching persona and use it to manage a complex and demanding emotional relationship with students. (Labaree, 2004, p. 12)

The apprenticeship of observation and complexity are theoretical challenges that reform efforts must address. In addition, a second set of professional learning challenges

must be solved. These problems, sometimes described as *gaps* between preparation and practice, include *enactment* (Kennedy, 1999), *two worlds pitfall* (Feiman-Nemser & Buchmann, 1987), *wash out* (Zeichner & Tabachnik, 1981) and the *practice-theory gap* (Korthagen & Kessels, 1999). These issues are important to the current study, and will be treated at length in the literature review.

Problem Statement

Providing an excellent teacher in every classroom, and an excellent education for every child is a social justice imperative (Cochran-Smith, 2004). The Urban Teacher Residency (UTR) is a model to recruit, educate, and retain a highly qualified urban teacher corps; it is "designed to embody best practices in recruitment, screening, preparation, placement, induction and teacher leadership for urban school districts" (Gatlin, 2009, p. 470). The UTR resembles a third way, defying categorization as either traditional or alternative, and is arguably an unconventional pocket of vitality (Berry et al., 2008; Gatlin, 2009). Currently, over 400 resident teachers are participating in UTR programs in 20 cities around the country, including Chicago, Boston, and Denver. Early evidence from the first programs established in Boston and Chicago suggests that they are meeting an important objective of combating attrition: the reported retention rates were "90% and 95% at BTR [Boston Teacher Residency] and AUSL [Academy for Urban School Leadership in Chicago], respectively, after 3 years" (Gatlin, 2009, p. 473). In addition to retention, very recent data from Colorado suggests that the Denver Teacher Residency program is producing more effective teachers. Denver Public Schools 2013/2014 district evaluation of all first year teachers, based on the district's evaluation framework (Leading Effective Academic Progress, better known as LEAP), revealed that

"DTR first year teachers outperformed all other first year teachers on every single indicator of LEAP" (Manager of Program and Curriculum, personal communication, August 18, 2014).

The UTR is a post baccalaureate program in which candidates spend a full year in classrooms apprenticed to carefully matched mentor teachers (before assuming responsibility as teachers of record). Residents earn a living stipend, and receive a M.A. and licensure upon successful completion. Some UTRs assure graduates of employment in the district. UTRs are sponsored and largely funded by private non-profits; in Chicago this is the Academy for Urban School Leadership. Another prominent UTR is located in Boston. A national umbrella organization, Urban Teacher Residency United (UTRU), helps to open and support UTRs. Urban teacher residencies collaborate with local school districts and institutions of higher education. In this model, the university takes a back seat, and does not operate the program.

UTRs are intended to be scalable, but malleable to local needs and circumstances. In Denver, residents receive close supervision from mentors, who attend monthly professional development sessions to enhance their work as teacher educators. This model addresses the need for ongoing induction support by offering supervision of residents into the third year as needed.

The subject of inquiry for this qualitative study was the significance of locus and praxis as they pertain to teacher education practices and novice learning (these terms were adopted and defined by the researcher for the purpose of this study). The term *locus* was meant to suggest a nuanced and comprehensive way to consider the K-12 school and classroom as *the* essential location for learning to teach. The term *praxis* referred to

adaptive expertise, practical reasoning, problem solving, and wisdom informed by theory *in* practice. The case study examined locus, or the ways in which learning to teach is deliberately situated in the clinical setting of a K-12 classroom, and the ways in which clinical practices, learning experiences, and curricula help novices to develop praxis. The assumption was that locus and praxis are essential considerations in the design of effective teacher education programs able to deliver and retain highly qualified teachers who can serve students in urban schools.

A study of locus in the urban residency setting could help to shed light on the theoretical problems of learning to teach, many of which relate to the companion notion of praxis. Helping student teachers connect theory to practice has been a perennial challenge for teacher education as currently conceived and organized.

The research questions ask (1) In what ways is teacher learning deliberately located in the clinical setting of a K-12 classroom? (2) In what ways do clinical practices, learning experiences, and curricula develop the capacity for praxis in residents?

The UTR was an appropriate setting in which to conduct this investigation. Urban districts frequently include the lowest performing schools and the most needy of students. Partly as a result of these and other unfavorable conditions, urban schools encounter great difficulty in recruiting, preparing, and especially retaining highly qualified teachers (Boggess, 2010; Ingersoll, 2004). These problems urgently need solution, and UTRs are implementing teacher education practices that should work, for example, the strong clinical structure of the program (Darling-Hammond, 2006a; Levine, 2010), a curriculum that attempts to weave theory and practice together (Hagger & McIntyre, 2006; National Council for Accreditation of Teacher Education, 2010), the treatment of mentors as

teacher educators (Feiman-Nemser, 1998; Korth, Erickson, & Hall, 2009), the organization of residents in cohorts (Bullough, Clark, Wentworth, & Hanson, 2001), and the provision of ongoing support through induction (Borko et al., 2009; Feiman-Nemser & Norman, 2000; Ingersoll, 2012).

Another reason that UTRs are interesting is that they have been initially well funded. Mentors are paid a stipend of up to 20% of their salary. Residents are paid a living stipend (30-50% of first year salary) during the year of supervised practice. This financial arrangement has the important benefit in allowing candidates to devote their undivided attention to learning how to teach. The UTR may be answering the question, If budget concerns were not an issue, what would an ideal teacher education program look like?

Significance

A substantial body of research conducted over several decades has identified teacher education challenges and their solutions (Cochran-Smith, 2004; Darling-Hammond, 2006a, 2008; Darling-Hammond & Bransford, 2005; Korthagen & Kessels, 1999; McIntyre & Byrd, 2000; Zeichner & McDonald, 2011). Somewhat lacking are scalable, yet flexible programs that implement known best practices. A better understanding of locus and praxis in the residency context could be useful to those who establish future UTRs, or to those who run residential and clinical programs. Such an understanding might be useful to designers of new preparation programs, enhancing novice learning and the development of praxis. “Insights gleaned from case studies can directly influence policy, practice, and future research” (Merriam, 2001, p. 19).

A study of the UTR could also be historically significant. Beginning with its origin in the normal school, teacher education has shown a persistent, though frustrated inclination to situate teacher preparation clinically, in a K-12 school. That disposition is alive and well today. In 2008, NCATE endorsed the UTR in a policy monograph co-sponsored by the Center for Teaching Quality (CTQ): "We believe the time is now for the teacher education community to embrace UTRs" (Berry, Montgomery, & Snyder, 2008, p. 1). In 2010, NCATE issued the report of its Blue Ribbon Panel, which asserted, "the education of teachers needs to be turned upside down" (NCATE, 2010, p. 1). This report explicitly called for a shift away from the conventional model based on academic preparation at universities "loosely linked to school-based experiences," towards a model "fully grounded in clinical practice and interwoven with academic content and professional courses" (NCATE, 2010, p. 1). The report further stated, "a comprehensive strategy to transform teacher education through clinical practice must be part of any significant national approach to school reform" (p. 5). The UTR is significant because it does just that, and represents a third way, "addressing the weaknesses as well as incorporating the best of both traditional and alternative approaches to teacher education and certification" (Berry, Montgomery, & Snyder, 2008, p.1).

Because UTRs are relatively new, research is just emerging. The majority of the early scholarly literature is descriptive or advocacy oriented. Some early studies examined the impact of UTRs on retention. More recently, value-added studies have examined the impact of UTR graduates on student achievement (Papay et al., 2012; Plecki, Elfers, & Nakamura, 2012). Many studies of urban teacher residencies and urban teaching focus on the dispositions of teachers, the cultural and demographic gaps

between the teacher corps and urban students, or culturally responsive practices (Campbell, 2012; Tricaricio, 2012; Van Steenberg, 2012). No case studies have examined the development of praxis in the setting of an urban teacher residency, nor have any studies explored what curricula and clinical practices enhance the development of praxis for residents. A case study of the Denver Teacher Residency will hopefully generate knowledge, improve practice, and suggest further directions for research. The results of the study may be valuable to the Denver Teacher Residency, as well as cautiously transferable to other residency programs around the country. Hopefully, the study will prove significant in terms of teacher education knowledge and practice. Both traditional and alternative teacher education programs could potentially benefit from the study by revising curricula and honing clinical practices.

Overview of Methodology

The purpose of this qualitative study was to explore the concepts of locus and praxis in the Denver Teacher Residency program. An analytical case study investigated two research questions: (1) In what ways is teacher learning deliberately situated in the clinical setting of a K-12 classroom? (2) In what ways do clinical practices, learning experiences, and curricula develop the capacity for praxis in residents?

Analytical case studies "are differentiated from straightforward descriptive studies by their complexity, depth, and theoretical orientation" (Merriam, 2001, p. 38). Like all case studies, the current study focused on a specific instance in order to flush out the general principles of a phenomenon, in other words, "to reveal the properties of the class to which the instance being studied belongs" (Merriam, 2001, p. 39). Case studies have a strong tradition in education research, and have "proven particularly useful for studying

education innovations, for evaluating programs, and for informing policy" (Merriam, 2001, p. 41).

The research design for the study was emergent (Cohen, Manion, & Morrison, 2011; Creswell, 2013; Glatthorn & Joyner, 2005; Lincoln & Guba, 1985) and included extensive fieldwork and interim analysis (Creswell, 2013). Case study method is eclectic with respect to what types of data are most appropriate (Cohen et al., 2011). However, "data collection in case study research is typically extensive, drawing on multiple sources of information" (Creswell, 2013, p. 100). Data collection for this study included interview and observation of program participants (residents, instructors, field mangers, and mentor teachers), as well as document analysis (course syllabi, assignment descriptions, assigned readings). In case studies a variety of sources of evidence helps to build validity (Cohen et al., 2011). Recursive interim data analysis entailed thick description of the case, identifying themes, and developing interpretations and assertions (Creswell, 2013).

Delimitations of the Study

Case studies have a number of limitations, some of which follow from the researcher's role as "the primary instrument for data collection and analysis" (Merriam, 2001, p. 7). Researcher bias is a potential pitfall (Cohen et al., 2011; Merriam, 2001). This researcher is biased in favor of clinical and residential programs that attempt to situate teacher learning in a K-12 school, vs. a university, and which attempt to integrate theory and practice. Selecting data and distinguishing inference from knowledge are challenges (Cohen et al., 2011). Poor case studies may "oversimplify or exaggerate a situation, leading the reader to erroneous conclusions about the actual state of affairs"

(Merriam, 2001, p. 42). Defining the boundaries of the case is sometimes a challenge" (Marshall & Rossman, 2011; Merriam, 2001). Creswell (2013) adds that case studies sometimes lack a clear end point to conclude the study. A very important concern for case study researchers is to present a transparent and explicit chain of reasoning. "When writing the report, the researcher must allude — by direct reference — to the actual evidence that supports the point being made" (Cohen et al., 2011, p. 300).

Organization of the Dissertation

Chapter 2 will include a review of historical, theoretical, and empirical literature. Chapter 3 will explain the methodology of the proposed study. Chapter 4 will present results of the study. Chapter 5 will provide a summary and discussion of the study results. References will follow.

Chapter 2

Literature Review

Introduction

This chapter will review the historical, theoretical, and empirical literature providing a foundation for the present case study of the Denver Teacher Residency. Part one of the chapter will briefly sketch a history of teacher education, and then examine the PDS as the predecessor of the UTR. The review of theoretical literature in part two is organized into several subsections, each of which is framed around a question: 1) How do teachers learn? 2) How is teacher learning unique, and what are the challenges for teacher education? 3) How does theoretical knowledge contribute to teacher learning? 4) What is praxis? 5) What is locus? Finally, a review of empirical UTR research literature will follow in part three.

Historical Foundations

Teacher preparation began in normal schools, which were created to supply the expanding corps of teachers needed for mandatory, state-funded public schooling. Normal schools varied widely across the country and over the course of their existence, but ideally offered a clinical preparation in which novices acquired subject knowledge and pedagogy, while simultaneously observing and practicing teaching with actual students, under one roof (Fraser, 2007). By 1960, the normal schools had evolved into state teachers colleges, and then colleges of education housed at multipurpose universities. Scholars have thoroughly explored the problematic consequences of establishing teacher education at the university (Clifford & Guthrie, 1988; Goodlad, 1999; Judge, 1982).

The English educator, Judge (1982), famously described the arrangement as resting upon "a deeply institutionalized error" (p. 34). This critique resonated with teacher educators, and many agreed that "the individual parts of teacher preparation—subject matter preparation lodged in the disciplines, educational coursework in the schools of education, and practice teaching in the schools— could not be made to cohere" (Sykes et al., 2010, p. 466). By the early 1980s, a consensus of teacher educators came to view "reforming the triangular relationships between public school professionals, schools of education and universities" as a critical step in reforming teacher preparation (Clifford & Guthrie, 1988, p. x).

This critique of university based teacher preparation did not evolve in a vacuum. The 1980s reveal important shifts in American culture, politics, and economics, which together provided new directions for public education and teacher preparation policy. *A Nation at Risk* (National Commission on Excellence in Education, 1983) signaled this shift in dramatic language, and rekindled the kind of national anxiety about American public schooling that followed Sputnik's launch in 1957. Reagan's election reinvigorated a conservative economic ideology, and education policy authors began to advance free market solutions as *the* way to improve education and teacher preparation.

Like any swing of the political pendulum, this did not occur overnight, or without opposition. In education, the contest was between two prescriptions for reform: deregulation and professionalization (Cochran-Smith & Fries, 2001; Darling-Hammond, 2010). The two factions advocated very different reform initiatives. In the most basic terms, the rival proposals for teacher preparation could be described thusly: deregulation meant creating competition in teacher education by allowing other institutions (besides

colleges and universities) to prepare teachers; professionalization meant simultaneously enhancing the profession and preparation. The latter would be accomplished by making programs more rigorous, thorough, and lengthy, and by addressing the problems that had been identified with conventional programs (Abdal-Haqq, 1998). The model for this improved teacher preparation, and the engine of greater reform, was the Professional Development School (PDS). Because the PDS is the precursor to the UTR, it is important to understand its history.

Teacher educators responded to the crisis proclaimed in *A Nation at Risk* in the subsequent report, *A Nation Prepared* (Carnegie Task Force on Teaching as a Profession, 1986). Its central recommendation was to establish clinical schools, which would enhance the field experience, and help to integrate practice and theory:

> *Clinical* schools, selected from among public schools and staffed for preparation of teachers, must be developed to make this successful. These institutions, having an analogous role to teaching hospitals, should be outstanding public schools working closely with schools of education. (Carnegie Task Force on Teaching as a Profession, 1986, p. 76)

The suggestion to make teacher education more clinical in nature was further supported by The Holmes Group report, *Tomorrow's Teachers* (1986). At the heart of this proposal was the PDS. The PDS was intended to solve problems associated with the conventional preparation model, in which university coursework was thought to be insufficiently integrated with a clinical component in a nearby district school.

The PDS resembled the medical residency; novices would learn to teach in a K-12 school under the guidance of an exemplary mentor, and perhaps more readily apply

scientific methods and theory delivered at the university to the practical challenges of teaching in a classroom. "They were envisioned as institutional settings that would be both models of best P-12 practice and optimum sites for clinical preparation of novice teachers" (Abdal-Haqq, 1998, p. 2).

The Holmes Group proposed five goals for the PDS: (1) make teacher education more intellectually solid, (2) create a professional ladder, (3) create standards of entry, (4) connect higher-ed to K-12 schools, and (5) make schools a better place to work. The PDS would build a bridge connecting universities. Six design principles were included: (1) teaching and learning for understanding; (2) creating a learning community; (3) teaching and learning for understanding for all children; (4) continuing learning by teachers, teacher educators, and administrators; (5) thoughtful long term inquiry into teaching and learning; and (6) inventing a new institution.

By the early 1990s, the PDS had gained some traction:

> Professional-development schools (PDSs) have quickly become au rigor for teacher education programs today. Within less than a decade, 46 percent of the nation's teacher education programs have become aligned with more than 600 PDSs . . . an astonishing reformation of teacher education in the United States. (Hausfather, 2000, p. 31)

The tenth anniversary of the PDS was the occasion for reflection on the movement's progress. Fullan et al. (1998) evaluated the success of the Holmes initiative, paying close attention to the PDS. This review was mixed. According to their surveys, every member institution operated a PDS (a requirement for member institutions). The authors noted, however, that "many colleges display a *trophy mentality* about PDSs" (p.

30). In other words, what mattered was just having one. As the authors explained, "the extent to which a professional development school actually exemplifies the characteristics outlined in *Tomorrow's Schools* is difficult to determine, but many of our interviews suggested that the gap between rhetoric and reality is wide" (p. 31). The authors further suggested that PDSs rarely lived up to expectations: "the PDSs that exist are not yet "continuous improvement" schools peopled by teachers, preservice teachers, and university faculty" (p. 31).

A more favorable assessment comes from a teacher educator and Dean at Marysville University who has been directly involved in a PDS:

> The PDS movement has had effects on higher education and teacher education. It has propelled many programs toward greater involvement and partnership with schools and the involvement of HE faculty in schools. I've seen that in programs myself and in the work reported within 2 organizations: The National Association of PDSs and the National Network for Educational Renewal (NNER). Both have journals that report to some degree on successes and challenges with PDSs. They have not been an engine of change for K12 [sic] schooling given the small impact they can have and without the political clout of movements like Charter schools. But they have affected university-based teacher preparation in significant ways within some programs and provided the basis for the NCATE panel on clinical experiences report that is changing accreditation expectations nationally and within various states. (Hausfather, S., personal communication, September 2, 2013)

It was hoped that collaboration between institutions of higher education and K-12 schools would lead to mutual, simultaneous reform. Fullan et al. (1998) concluded that, "for a variety of reasons, including cultural differences between the two institutions, PDSs were on their own an insufficient strategy for changing two such complex social institutions" (p. 32). The Holmes Group also wanted to impact non-PDS schools, for example, by disseminating best practices. Here again, Fullan et al. determined that "they don't exert such influence" (p. 34).

Although the impact of the PDS in reforming K-12 is questionable, its emphasis on a practice-based, or clinical model of teacher preparation has not only survived, but is gaining steam (Berry, 2010; Howey, 2010; Howey, 2011; Howey & Zimpher, 2010; Sykes et al., 2010; Whitcomb et al., 2009; Zeichner, 2006, 2010, 2012; Zeichner & McDonald, 2011). Leading teacher educators now argue that "clinical experiences should be the central focus of preservice teacher education from which everything else in a program emanates" (Zeichner, 2010, p. 4).

In conclusion to this section on the historical background of UTRs, a few observations are warranted. First, in a sense teacher preparation returned (after 175 years) to its own clinical preparation roots. Like the normal school, the UTR situates novice teacher learning in a K-12 school. And like the normal school, the UTR aims to create a new teacher workforce. Normal schools prepared a predominantly female teacher corps to staff a new mandatory public school system in the 19th century. Now, in the 21st century, UTRs hope to prepare a new cadre of professionals who can effectively teach in challenging urban schools. Second, although a descendant of the PDS, the UTR has a different mission. Organizationally, it resembles the PDS, and programmatically, it faces

similar challenges. Although UTRs partner with universities, they are not an invention of higher education, and make no attempt to reform universities. Whereas the PDS was created by, and closely linked to a university, the UTR is created by, and closely linked to a school district. An important point is that UTRs are not operated by colleges of education. UTRs arose from local school districts' frustration with the preparation of novice teachers at both traditional and alternative preparation programs. UTRs were also created to meet urgent workforce challenges in urban school districts. Finally, teacher educators interested in change would be well advised not to ignore the lessons of prior reform efforts, and to heed Goodlad's (1984) advice to avoid the profession's tendency to be ahistorical.

Theoretical Foundations

Part two of this chapter, which reviews the broad theoretical foundations for the current study, is organized into subsections, each of which is framed by a question. The discussion will progress from general theories of learning, to the challenges inherent in teacher learning, to the concepts of *praxis* and *locus*.

How do teachers learn?

The fundamental contemporary theory of learning is constructivism (Dewey, 1938; Piaget, 1978; Vygotsky, 1978). Simply put, "people construct new knowledge and understanding based on what they already know and believe" (Bransford, Brown, & Cocking, 2000, p. 10). An extension of constructivism that is significant for teacher learning is social cognition (Bandura, 1986; Vygotsky, 1978). This theoretical orientation suggests that people learn with and from others, especially by observing others. Social cognition emphasizes the social and contextual nature of learning.

Based on anthropological studies of apprenticeship across several cultures, Lave and Wenger (1991) proposed a theory of *situated learning*. Rejecting the notion that knowledge could be imparted in one location and transferred to, or used in another, they view learning as inseparable from the cultural and social context in which it occurs. This standpoint implies an "emphasis on comprehensive understanding involving the whole person rather than *receiving* a body of factual knowledge about the world; on activity in and with the world; and on the view that agent, activity, and the world mutually constitute one another" (Lave & Wenger, 1991, p. 33).

In their study of apprenticeships, Lave and Wenger (1991) detected patterns in how novices learn to perform, and (perhaps more importantly) belong to an occupationally defined social group. *Legitimate peripheral participation* (Lave & Wenger, 1991) names this process, in which newcomers gradually become experienced and accepted members of a *community of practice* (Wenger, 1998). Humans learn socially (Putnam & Borko, 1997). Humans learn from experience, and by observing other humans. They learn by doing, with tools in hand, in the authentic setting of an activity (Dewey, 1938).

Situated learning theory has explanatory power. Indeed, it further explains many of the problems of university-based teacher preparation that were identified in the 1980s (Clifford & Guthrie, 1988; Judge, 1982; Wubbels, 1992; Zeichner & Tabachnik, 1981). Situated learning theory has widespread and authoritative support among teacher educators:

> In sum, contemporary research suggests that learning about teaching develops through participation in a community of learners where content is encountered in

> contexts in which it can be applied. Emerging evidence suggests that teachers benefit from participating in the culture of teaching—by working with the *materials and tools of teaching practice*; examining teaching plans and student learning while immersed in theory about learning, development, and subject matter. (Darling-Hammond & Bransford, 2005, p. 405)

Situated learning theory holds important implications for teacher education. If humans indeed learn from observing others, by doing, and in the authentic setting of an activity, then teacher learning should be situated within the culture of a school (Brown, Collins, & Duguid, 1989). However, an interesting problem remains. The intangible work of a teacher is not easy to observe, and not as perceptible to the novice, as the material work of a tailor or a quartermaster, for instance. In fact, a teacher's knowledge base, thinking, and expertise are difficult to describe, much less to share with a novice. In an effort to address this problem and surface teachers' tacit knowledge, Collins, Brown, and Newman (1989) developed a theory of *situated cognition*. The theory assumes that when masters of any craft are shepherding a novice, they rarely articulate all of the thinking, considerations, and processes involved in a complex task. Collins, Brown, and Newman, (1987) proposed a carefully designed cognitive apprenticeship "to bring these tacit processes into the open, where students can observe, enact, and practice them with help from the teacher" (p. 4). In conclusion to this section, these theoretical considerations have enormous implications for teacher education.

How is teacher learning unique, and what are the challenges for teacher education?

While other models of professional education, like the medical residency, and the vocational model of the apprenticeship help us to better understand novice teacher

learning, teaching is a unique skill, and educating teachers presents unique challenges. This is especially true when the goal of teaching is deep understanding, transfer, advanced literacy, and acquisition of higher order thinking skills.

Two phenomena must be accounted for, *apprenticeship of observation* (Lortie, 1975), and the *complexity* (Bransford et al., 2000; Darling-Hammond & Bransford, 2005; Whitcomb et al., 2009) of effective teaching. The apprenticeship of observation distinguishes teacher education from most other forms of professional education; in no other context have novices spent some 13,000 hours observing practitioners prior to formal preparation. This has a "special occupational effect on those who move to the other side of the desk. There are ways in which being a student is like serving an apprenticeship; students have protracted face-to-face and consequential interactions with established teachers" (Lortie, 2002, p. 61). However, unlike the case in a typical apprenticeship, a student's role is limited to passive observation. This leads to the harmful misconception that teaching is easy (Lortie, 1975).

A second reality for the profession relates to the first. Although some view teaching as a relatively straightforward task, it is actually complex, especially today. In fact, teaching seems to be characterized by an *irreducible complexity* (Labaree, 2004). Whereas subject knowledge was once the primary qualification of a teacher, today effective teachers must draw on a wide range of skills and knowledge bases:

> Teaching is grounded in the necessity of motivating cognitive, moral, and behavioral change in a group of involuntary and frequently resistant clients. It depends heavily on a teacher's ability to construct an effective and authentic

> teaching persona and use it to manage a complex and demanding emotional relationship with students. (Labaree, 2004, p. 12)

Recognizing the complex nature of teacher expertise led to investigations of teacher knowledge and judgment (Fenstermacher, 1994; Grimmett & Mackinnon, 1992; Hagger, 1997; Korthagen & Kessels, 1999; Schon, 1983; Shulman, 1986). In contrast to a 19th century view that teachers needed only subject matter expertise, effective teaching came to be understood as involving a complex set of intellectual and social skills. We now understand that effective teachers continually make decisions, judgments, and adjustments. "We also know that these complex judgments are made more or less simultaneously, that they are made tacitly, and that they are made by different teachers according to their own distinctively personal *images* of classroom teaching" (Hagger & McIntyre, 2006, p. 33). Hagger and McIntyre (2006) go so far as to suggest that "teaching expertise is so subtle, so complex, so individual and so context-related that it can only be understood in relation to a particular practice, not in general" (p. 33).

The apprenticeship of observation and complexity are just the first two challenges that strong teacher preparation programs address. In addition, a second set of professional learning challenges must be solved. In separating the place of learning from the place of doing, teacher education created a considerable problem, one that warrants the nickname, "Achilles heel of teacher education" (Zeichner & McDonald, 2011, p. 46). A set of entwined problems, variously described as *gaps, divides*, *disconnects,* or *disjunctures* between preparation and teaching practice have been thoroughly investigated, have significant implications for designing programs, and contribute to the

theoretical foundations of the current study (Anagnostopoulos, Smith, & Basmadjian, 2007; Hanks, 1991).

Feiman-Nemser and Buckman (1983; 1985) investigated novice learning in the field experience, especially what the authors identified as problematic aspects of the practicum that "arrest thought or mislead prospective teachers into believing that central aspects of teaching have been mastered and understood" (1983, p. 1). According to their research, one of these problems, the *two-worlds pitfall,* resulted from tensions between the two settings (university and school) that student teachers must simultaneously navigate:

> The norms and rewards associated with . . . professional preparation fit with the academic setting. Doing well at the university brings immediate and highly salient rewards which may not have much to do with success in teaching. On the other hand, pressure to adapt to the way things are in schools is great. (1983, p. 10)

Hanks (1991) further explained, a "program that consists of instructional settings separated from actual performance would tend to split the learners' ability to manage the learning situation apart from his ability to perform the skill" (p. 21). Student teachers regularly report feeling a disconnect between theoretical university studies and practical experience in schools (Anagnostopoulos et al., 2007; Korthagen, 2001; Zeichner, 2010). Education students frequently complain that university courses are too theoretical and do not prepare them for actual teaching (Darling-Hammond, 2010).

A number of consequences seem to follow. One of these is that novices struggle with what is termed *enactment* (Darling-Hammond & Bransford, 2005; Kennedy, 1999), or *integration* (Sykes et al., 2010). These terms describe the typical education student's

limited transfer of methods, concepts, and/or theories taught at the university into actual teaching practices:

> There is a strong likelihood that even if novices are persuaded by their faculty's ideas and are persuaded to adopt a different frame of reference to thinking about teaching, they will not know what actually to do to enact these new ideas. (Kennedy, 1999, p. 71).

Unfortunately, mentor teachers do not always help students teachers enact methods, concepts, and theories taught at universities. In fact, student teachers often hear contradictory and clashing messages from professors and mentors (Zeichner & Gore, 1990). For too many novices, the ideals espoused at the university actually appear at odds with "extant practices of teachers in the field" (Sykes et al., 2010, p. 468). For example, many education professors implore their students to adopt constructivist teaching practices, while cooperating teachers question the usefulness or practicality of such practices:

> The second problem is integration. By this term we mean the relation between the espoused aims favored by the program of training and the extant practices of teachers in the field. The teaching occupation features a peculiarity in that many university-based teacher educators tend to counteridentify with school teaching as currently practiced (and with schools as currently constituted). (Sykes et al., 2010, p. 468).

A related facet of the university-school divide that receives attention in the literature is *wash out* (Zeichner & Tabachnik, 1981). This term describes the phenomenon of the supposedly positive effects of teacher preparation being eroded by

experience in schools. The assumption was that "students become increasingly more progressive or liberal in their attitudes towards education during their stay at the university and then shift to opposing and more traditional views as they move into student teaching and inservice experience" (Zeichner & Tabachnick, 1981, p. 7). However, the authors concluded that it was not safe to "assume that the role of the university is necessarily a liberalizing one and that schools are the only villains in the creation of undesirable teaching perspectives" (Zeichner & Tabachnick, 1981, p. 10).

Directly related to wash-out is the concept of *teacher socialization* (Zeichner & Gore, 1990), a distinct field of teacher education research. Following the footsteps of Lortie (1975) and Lave and Wenger (1991), this line of inquiry "seeks to understand the process whereby the individual becomes a participating member of the society of teachers" (Zeichner & Gore, 1990, p. 1). Socialization research attempts to explain the impact of preservice, preparation, and induction influences on how teachers think about teaching and learning.

The failure of education students to enact scientific and researched-based teaching practices is viewed as problematic by those who wish to reform schools (Kennedy, 1999). Despite many teacher educators' desire to do so, changing the thinking and practices of education students is a significant challenge (Furlong, Barton, Miles, Whiting, & Whitty, 2000; Korthagen, 2010; Wideen, Mayer-Smith, & Moon, 1998). A common explanation was simply that teachers tend to teach as they were taught and adopt the practices of their own teachers (Kennedy, 1999). Another explanation revolves around the notion of *cultural scripts* (Sykes et al., 2010). The perceived stubbornness of teacher thinking and practice makes sense from the anthropological lens of cultural script

theory, in which teaching is understood as a "cultural activity that follows scripts deeply inscribed by tradition, supported by public perception and approval, and handed down via the apprenticeship of observation that provides a powerful basis for continuity with past practice" (Sykes et al., 2010, p. 465). If Lave and Wenger (1991) were correct, it isn't surprising that novice teachers gravitate to the culture of the school where they apprentice, and to the culture of the profession they hope to join, and not to the culture of the university. In fact, we should expect novices to make an "adjustment to current practices in schools and *not* recent scientific insights into learning and teaching" (Korthagen, 2001, p. 2). Again, this presents a conundrum for a profession needing reform. If a teacher's thinking and practice are entirely determined by prior experience, "then most reform proposals . . . [are] doomed" (Kennedy, 1999, p. 56). If the profession itself produces a "tilt towards continuity with and conservation of past practices," what role can teacher preparation play in reform (Sykes et al., 2010, p. 465)?

In conclusion to this section, scholars have carefully investigated the nature of teacher learning, and the unique challenges it presents. These are not insurmountable. Preparation programs that hope to innovate, such as the UTR, could benefit from this research literature and adopt promising clinical models and practices (see, for example, Action, Looking, Awareness, Creating, Trial (ALCAT) in Korthagen (2001), and the Mediated Field Experience in Campbell (2012).

How does theoretical knowledge contribute to teacher learning?

Another troublesome challenge facing teacher education, and another kind of disjuncture that seems to result from splitting the place of learning from the place of doing, relates to the relationship of theory and practice. This issue receives tremendous

attention in the literature. The gap between theoretical and practical knowledge is considered "neither minor nor benign" (Allen & Peach, 2007, p. 33). A recurrent goal of teacher education reform is bridging the theory-practice gap (Allen & Peach, 2007; Allsopp, DeMarie, Alvarez-McHatton, & Doone, 2006; Darling-Hammond, 2006a; Korthagen, 2001, 2010; Korthagen & Kessels, 1999). One reason this is such a problem is that teachers seem to develop a disdain for theory, empirical research, and teacher education in general. Sykes et al. (2010) put it bluntly, "teachers themselves appear neither to be aware of nor to use knowledge gathered between the covers of books, collected in manuals, or posted on websites" (p. 466). The practices of such teachers may be fairly described as "atheoretical" (Darling-Hammond, 2010, p. 43).

It is interesting to consider how this state of affairs came about. While larger cultural influences (e.g., anti-intellectualism, meager scientific literacy, excessive emphasis on pure theory in academe) could be at work, some education scholars have suggested that the practice–theory gap may result from how theory is presented in preparation programs. An enduring premise of traditional preservice teacher education is that teachers "should first understand about good teaching, and should then put that understanding into practice" (Hagger & McIntyre, 2006, p. 10). This premise has been variously named as the *application of theory model* (Zeichner & McDonald, 2011), the *sacred theory to practice story* (Clandinin, 1995), the *outside-in model* (Cochran-Smith & Lytle, 1990), and the *applied science approach* (Grimmett & Mackinnon, 1992). The idea is that in addition to content knowledge, effective teachers need strong foundations in education history, child development, psychology, and sociology. Exactly what kinds of theoretical knowledge future teachers are thought to need is contested and shifts over

time (Zeichner, 2006). In recent decades, it often includes topics like multiculturalism, culturally responsive practices, urban education, and English language acquisition. It was assumed that education students would be able to translate a priori theoretical knowledge into effective teaching practice, more or less on their own. Evidence suggests this is not the case (Korthagen, 2001; Korthagen & Kessels, 1999). Even when education students earnestly engage in theoretical studies, they often find that "using these studies as a basis for thinking about their teaching while in schools was not only very difficult but also unnecessary" (Hagger & McIntyre, 2006, p. 11). Studies seem to suggest that "the great majority of student teachers find it easiest to forget about their theoretical studies once they get into schools and are working with teachers who do not approach their work in such theoretical terms" (Hagger & McIntyre, 2006, p. 11).

Why is it that theory doesn't seem to stick? One explanation is that preparation programs lack coherence. This was the gist of the critique of teacher education that emerged in the 1980s (Clifford & Guthrie, 1988; Judge, 1982). When a teacher's education is split between Colleges of Arts and Sciences, a College of Education, and the practicum site, it is difficult to build program coherence around common fundamental ideas. Ideally, preparation programs would revolve around a vision of teaching and learning shared by all parties. And ideally, "core ideas are reiterated across courses and the theoretical frameworks animating courses and assignments are consistent across the program" (Darling-Hammond, 2006a, p. 7). While the idea that coherence would enhance teacher learning is commonsensical, "cognitive science [also] affirms that people learn more effectively when ideas are reinforced and connected both in theory and in practice" (Darling-Hammond, 2006a, p. 7).

Another explanation for theoretical knowledge not gaining traction in the minds of graduates has been offered by Korthagen and his colleagues (Korthagen, 2001; Korthagen & Kessels, 1999; Lunenberg & Korthagen, 2009). Korthagen argues that teacher educators poorly understand of the concept of *theory*. He examines the practice-theory gap from an epistemological point of view, drawing on the classical Greek debate over the nature of theoretical versus practical knowledge. The argument between Aristotle and Plato revolved around competing notions of what kind of knowledge matters most, *episteme* or *phronesis*. We can think of episteme as theory with a capital 'T'. This is objective, scientific, theoretical knowledge. Phronesis is akin to craftsmanship, or adaptive expertise. It is theory with a lower case 't', or the "capacity to make holistic judgments of high quality, i.e., *to deal 'wisely'* with particular situations in the course of teaching" (Lunenberg & Korthagen, 2009, p. 226). Korthagen built on Aristotle's distinction by suggesting that scholarly, academic knowledge (episteme) is conceptual in nature, and in contrast, craft knowledge, or adaptive expertise (phronesis) is perceptual in nature:

> Episteme is the knowledge . . . produced by conventional research in order to answer a question such as 'What are characteristics of effective education, and why and how are they effective?,' 'What are the causes of student drop-out?,' etc. Such knowledge meets the traditional criteria of reliability and validity, and has the potential for broad generalization. It is *conceptual* knowledge, whereas phronesis represents the quality of the *perception* of concrete situations. (Lunenberg & Korthagen, 2009, p. 226)

Korthagen and his colleagues' point is not that theoretical knowledge (episteme) is unimportant, but that adaptive expertise (phronesis) is perhaps more important for effective teaching. Korthagen would argue that preparation should develop the perceptual capacity of novices. For Korthagen, teacher education's failure to attend to this distinction, and its emphasis on dispensing a priori, theoretical knowledge explains wash out, and the failure of graduates to enact or integrate scientifically based teaching practices:

> The danger . . . is that student teachers learn a lot of methods and strategies for many types of situations but do not learn how to discover, in the specific situations occurring in everyday teaching, which methods and strategies to use. (Korthagen & Kessels, 1999, p. 7)

Korthagen's distinction is helpful, it sheds light on some of the challenges that are unique to teacher preparation, and it figures prominently in the theoretical foundations for the current study. In fact, the Greek notion of phronesis is central to the current study's key term, *praxis*.

What is *praxis*?

Because the term *praxis* is not widely used in teacher education literature, and because it is central to the current study, this section of the literature review will: 1) explore the term's connection to existing theories of teacher knowledge and expertise, 2) distinguish the term from common usage, 3) define the term, 4) underscore the term's ethical implication, and, 5) explain what praxis means for teacher education.

In recent decades scholars have devoted significant energy to describing the professional knowledge and expertise of teachers. Some of these inquires were

philosophical in nature (Carr & Kemmis, 1986; Fenstermacher, 1994). Investigations focused on the distinction between *espoused theories* and *theories in use* (Cochran-Smith & Lytle, 1990). Inquiries examined the difference between content knowledge and *pedagogical content knowledge* (Shulman, 1986). Investigations explored teachers' *craft knowledge* (Grimmett & Mackinnon, 1992; Hagger, 1997; Hagger & McIntyre, 2006; van Driel, Beijaard, & Verloop, 2001; Zeichner, Tabachnik, & Densmore, 1987). The notion of reflective practice (Britzman, 2003; Schon, 1983) also gained currency in teacher education. Schon contributed in developing the concept of *reflection-in-and–on-action,* which named the kinds of thinking reflective practitioners do. Both Schon (1983) and Britzman (2003) emphasized a reflective teacher's willingness to embrace uncertainty:

> The practitioner allows himself to experience surprise, puzzlement, or confusion in a situation which he finds uncertain or unique. He reflects on the phenomenon before him, and on the prior understandings which have been implicit in his behavior. He carries out an experiment which serves to generate both a new understanding of the phenomenon and a change in the situation. (Schon, 1983, p. 68)

More recently, *adaptive expertise* (Bransford et al., 2000; Darling-Hammond, 2006a) has been identified as an essential component of effective teaching. Especially due to the increasing diversity of learners in American public schools and high expectations for learning outcomes, teachers "will need to be able to engage in disciplined experimentation, incisive interpretation of complex events, and rigorous reflection to adjust their teaching based on student outcomes. This means that teachers must become "adaptive experts"' (Darling-Hammond, 2006b, p. 11).

For the purpose of the current study, the investigator adopted the term *praxis,* which encompasses the notions of reflective practice, adaptive expertise, practical theorizing, as well as overlapping concepts, such as craft knowledge, practical reasoning, and wisdom informed by theory *in* practice. Praxis entails embracing uncertainty. Praxis is dispositional in nature and requires continuous reflection. In addition to common sense, praxis draws on research and scholarship. As defined here, praxis has an important ethical component. This facet of praxis has roots in the work of Aristotle (1980) and Freire (1998), and draws heavily on Hagger and McIntyre's (2006) concept of practical theorizing.

In order to carefully define *praxis*, it is helpful to begin with its common meaning. In the most basic sense, it refers to the exercise of a particular skill, and is often defined as the process by which a theory or skill is applied. In common usage, praxis connotes doing, and is sometimes used synonymously with *practice*. In the context of learning to teach, however, two problems are embedded within this lay definition. First, it reinforces an unhelpful dichotomy between thinking and doing (Carr & Kemmis, 1986). Second, it tends to elevate the importance of thinking above doing:

> Practice is often depicted as the act of doing something. It is usually contrasted to 'theory' - abstract ideas about some thing or phenomenon. In this 'theory' tends to be put on a pedestal. From theory can be derived general principles (or rules). These in turn can be applied to the problems of practice. Theory is 'real' knowledge while practice is the application of that knowledge to solve problems. (Smith, 2011).

When doing is viewed as divorced from thinking about doing, teaching expertise is likely

misunderstood. The reflective practitioner doesn't think and then do, but is constantly assessing, considering, and adjusting. The adaptive expert doesn't mechanically follow predetermined steps, but draws on experience and creativity. In praxis, doing and thinking are "understood as mutually constitutive" (Carr & Kemmis, 1986, p. 34).

In the context of the current study, praxis is further understood as a recursive process:

> In praxis there can be no prior knowledge of the right means by which we realize the end in a particular situation . . . As we think about what we want to achieve, we alter the way we might achieve that. As we think about the way we might go about something, we change what we might aim at. There is a continual interplay between ends and means. In just the same way there is a continual interplay between thought and action. This process involves interpretation, understanding and application in 'one unified process.' (Smith, 2011)

In addition to adaptive expertise and reflective practice, praxis involves an important ethical component, which can be traced to Aristotle (1980) and Freire (1998). Aristotle (1980) described the capacity for practical wisdom as an intellectual virtue. Aristotle's practical wisdom is not just the ability to judge what is good for oneself, but rather to judge what is good for society. Importantly, practical wisdom is more than judgment; it requires action. "Practical wisdom, then, must be a reasoned and true state of capacity to act with regard to human goods" (Aristotle, 1980, p. 143). For Aristotle then, praxis "is guided by a moral disposition to act truly and rightly; a concern to further human well being . . . This is what the Greeks called *phronesis* and requires an understanding of other people" (Smith, 2011). Over two millennia later, Friere (1998)

defined praxis as reflection and action that result in changing the world. There is a surprising consonance between the two philosophers on this point; both understand reflection as useful only to the extent that it is harnessed to action, and directed by a moral commitment to human well-being.

Having considered the term's common meaning, and having traced its heritage, we can now define praxis as "informed, committed action" (Smith, 2011). What then, does praxis mean in the specific context of teaching? Praxis holds three kinds overlapping implications, which are moral, intellectual, and dispositional.

The moral implication of praxis in the teaching profession begins with the imperative to serve all learners, and includes a commitment to social justice and the democratic purpose of public education. Current approaches that illustrate this imperative include: *Culturally Responsive Practices* (Wlodkowski & Ginsberg, 1995*)* a *No Excuses Pedagogy* (Thernstrom & Thernstrom, 2003), commitment to closing the demographic gap in education outcomes, *ambitious teaching* (Lampert, Boerst, & Graziani, 2011), and *adventurous teaching* (Putnam & Borko, 1997).

The intellectual ramifications of praxis begin with actually using "knowledge gathered between the covers of books, collected in manuals, or posted on websites" (Sykes et al., 2010, p. 466). Praxis entails seeking out scholarly insight and submitting new educational ideas to interrogation. Hagger and McIntyre (2006) call this *practical theorizing*, and suggest it should be the core activity of teacher learning. Hagger and McIntyre (2006) offer two criteria for evaluating theoretical knowledge. The first is practical. "Are the ideas acceptable for use in the particular school context, are they practicable in terms of the time, space and resources available?" (Hagger & McIntyre,

2006, p. 58). The second criterion has to do with "the values and assumptions embedded in different practices, the purposes for which they are appropriate and the circumstances in which they tend to be effective" (Hagger & McIntyre, 2006, p. 58).

This kind of interrogation bears a resemblance to reflective practice, but Hagger and McIntyre's (2006) concept of practical theorizing addresses their concerns about reflective practice. The first is that the term itself has so many interpretations, and is translated into practice in so many ways. The second concern is what Hagger and McIntyre (2006) cite as the tendency of student teachers to "interpret reflective practice as a kind of common-sense evaluation of their own practice" (p. 58). The practical theorizer they have in mind is not casually weighing new ideas against common sense, or instinct. Praxis entails a rigorous, systematic, and "critical examination that goes well beyond common sense" (2006, p. 58). Action, participant, and teacher research (Carr & Kemmis, 1986; Hubbard & Power, 1999) provide models for practical theorizing, and the concept of praxis elaborated here is entirely compatible with the teacher research movement of the 1980s.

The third and last implication of praxis revolves around dispositions, the subject of extensive research (Darling-Hammond & Bransford, 2005). The basic notion of learning *from* practice (Darling-Hammond, 2006a) is a disposition that is foundational to praxis. The dispositions to inquire, reflect, and collaborate are also important for praxis. Although beyond the scope of the current study, an interesting question for teacher educators is how these dispositions can be instilled and/or developed in candidates.

In conclusion to this section, praxis was defined as informed, committed action. The moral and intellectual implications of this concept were explored. Special attention

was devoted to Hagger and McIntyre's (2006) notion of practical theorizing, which perfectly captures the intellectual aspect of praxis. Although not emphasized by its authors, practical theorizing is metacognitive in nature, the value of which is strongly supported by cognitive science (Bransford et al., 2000). The importance of praxis as a concept rests on its potential to help novices bridge the gap between theory and practice, and to bring scholarship to bear on the enormous challenges of teaching. Praxis rejects a dichotomy between theory and practice, and considers both theoretical and craft knowledge as equally important (Carr & Kemmis, 1986). Praxis represents the weaving together of academic and practitioner knowledge (Zeichner & McDonald, 2011). Praxis builds theoretical knowledge; "*praxis* is informed action which, by reflection on its character and consequences, reflexively changes the 'knowledge –base' which informs it" (Carr & Kemmis, 1986, p. 33).

An important question remains, Where do we situate novice learning such that novices are most likely to develop a capacity for praxis? In the next (and final) section of this review of theoretical literature, that question will be explored.

What is *locus*?

Considering the history of teacher preparation, the unique challenges of learning to teach, and the problems that resulted from moving preparation to the university, it is not surprising that many teacher educators now advocate shifting the "center of gravity" (Zeichner, 2006). There is considerable support for a more clinically-oriented and school-based preparation. In 2010, NCATE issued the report of its Blue Ribbon Panel, which asserted that "the education of teachers needs to be turned upside down" (NCATE, 2010, p. 1). This report explicitly called for a shift from the conventional model based on

academic preparation at universities "loosely linked to school-based experiences," towards a model "fully grounded in clinical practice and interwoven with academic content and professional courses" (NCATE, 2010, p. 1).

The term *locus* rarely appears in teacher education literature. However, several closely related terms do. In addition to shifting the center of gravity, scholars refer to *situating* (Putnam & Borko, 1997), *locating* (Hagger & McIntyre, 2006), and *embedding* (Levine, 2010) novice teacher learning in a classroom. In concert with these verbs, the noun *locus* is meant to suggest a nuanced and comprehensive way to consider the K-12 school and classroom as *the* essential location for learning to teach.

However, a lay definition of the term *locus* may lead to misunderstanding its importance for teacher learning. Perhaps the most common usage is encountered in the phrase *locus of control*. In common parlance, *locus* may refer to a physical place, which is the center of some activity. In technical, scientific, and mathematical contexts, the term usually refers to a physical position, or point. In the context of learning, however, the physical or geographic connotation of locus may be deceptive. In teacher education, it is not just a matter of where novice teachers are learning, but also how, from, and with whom are they learning. As defined for the purpose of the current study, locus is understood as social and contextual. This is in keeping with situated learning theory discussed above (Lave & Wenger, 1991). The physical location where novice learning is situated matters because the novice should spend as much time as possible in the cultural setting of K-12 schools. Only in the K-12 classroom can novices learn by observing, from teachers, and with other novices.

Shifting the center of gravity of teacher preparation captures the notion of locus

presented here. It implies more than just placing novices in classrooms. It implies drawing on the expertise and wisdom of teachers, treating exemplary teachers as teacher educators, and "learning teaching from teachers" (Hagger & McIntyre, 2006). Actually turning teacher preparation upside down, and moving its locus from the university to a K-12 classroom, will require a "school based curriculum" (Hagger & McIntyre, 2006). Although beyond the scope of the current study, shifting the locus of novice teacher learning will also be advanced by attention to cohort learning (Bullough et al., 2001).

In conclusion to this section, the concepts of praxis and locus were especially important to define because they are not widely used, because they are foundational for the current study, and because the research questions revolve around them. An assumption underlying the current study is that locus and praxis are essential considerations in the design of effective teacher education programs able to prepare and retain highly qualified teachers who can effectively teach in urban schools.

Empirical Research Literature, Urban Teacher Residency Programs

Because urban teacher residencies are relatively new, empirical research literature is just emerging. Existing studies generally fall into one of two categories: 1) quantitative studies that attempt to evaluate the effectiveness of program graduates on the basis of value-added models, and 2) qualitative studies that focus on candidate dispositions and practices, especially those related to preparation for urban teaching, such as Culturally Responsive Practices (CRP). No studies of locus or praxis in an urban residency setting have been identified. Reviewed here are six qualitative studies.

Campbell (2012), Tricarricio (2012), and Ross et al. (2012) conducted qualitative studies of teacher education students in urban settings. Tricaricio (2012) conducted

research on an urban teacher residency. Ross et al. (2007) studied a non-UTR urban internship program in Florida. All three of these studies focused on the program goal of developing culturally responsive practices and pedagogies.

Campbell (2012) conducted a single case study investigating an interesting preparation model called the Mediated Field Experience (MFE), which was designed to bridge the coursework-fieldwork gap:

> Teacher candidates spent approximately one day each week observing two urban Algebra 1 classrooms that were taught by partner teachers who were implementing equity-oriented teaching practices. University methods course instructors accompanied the teacher candidates into the field and, together with the partner teachers, engaged in a cycle of planning, observing, debriefing, and reflecting. This cycle was conducted weekly for approximately seven weeks. (Campbell, 2012, p. 3)

Although the goal of this program was to develop "equitable teaching practices in mathematics," because the study examined "the structures, activities, and tools of the MFE" it is relevant to the proposed study (Campbell, 2012, p. 1). Experimentation with the structure of the practicum, its relationship to curricula, and the role of instructors and supervisors is needed, and this study takes an interesting approach. Results of the study have implications for urban teacher residencies. First, the MFE design "positioned the partner teachers as teacher educators," which reportedly enabled novices to better access "invisible" or implicit expert teacher knowledge and practice (p. 4). According to the author, this helped "teacher candidates to connect the practices promoted in their teacher education programs to the realities of implementing those practices in school classrooms"

(p. 4). Although the study did not examine UTRs, it is relevant to the proposed study, which is concerned with the relationship of theory and practice, locus, and praxis.

Ross et al. (2007) examined the extent to which internship experiences helped candidates develop a *no excuses pedagogy*, defined as a commitment to solving learning and/or behavior challenges, not blaming the home context, and believing that every child can learn. Underlying the design of this program is the notion that learning to teach in low income, minority-majority schools is "best supported by professional learning communities, and that a first step in preparing novices to succeed in such schools is to "scaffold their successes . . . so that they *begin* their careers with the skills necessary to succeed" (Ross et al., 2007, p. 395). Results of this study suggest that professional learning communities were effective in helping interns develop a *no excuses* pedagogy. However, the authors expressed concern about the lack of induction support in low-income, minority-majority schools. Although the program investigated was not an urban teacher residency, it is relevant to the proposed study because cohort learning, which this study determined to be effective, is a component of the UTR design. This study also pointed to the need for ongoing induction support, which UTRs provide. The study described the coursework students did in conjunction with the field experience, the goal of which was "(a) to disrupt any tendency to blame student or families, and (b) to scaffold the continual search for alternative solutions" (Ross et al., 2007, p. 395). Because the proposed study asks, In what ways do clinical practices, learning experiences, and curricula develop the capacity for praxis in residents, this study of teacher dispositions may be important. The notion of scaffolding learning experiences in the practicum is interesting, and might suggest the sub-question, How can a UTR scaffold

the development of novices' capacity for praxis?

Tricaricio (2012) studied three graduates of an alternative urban teacher preparation program. The researcher was interested in the culturally responsive practices of program participants. The results suggested that the program had only limited impact on novice practices or perspectives. Two similar studies examined candidate dispositions (Evans, 2011; Van Steenberg, 2012). Evans (2011) identified structures at the college and the field sites that were important for the development of a disposition to adopt culturally responsive methods. Van Steenberg (2012) examined the importance of dialogue skills to support culturally responsive practices, specifically in terms of fostering positive relationships with children and families.

Finally, Boggess (2010) conducted a double case study of the two leading UTRs in Chicago and Boston. The study explored "the phenomenon of district reform partners' 'tailoring' urban teachers to meet the varying definitions of teacher quality active in each district" (Boggess, 2010, p. 68). According to the author, these urban district leaders were interested in addressing a "teacher quality gap, defined as the disparity between the attributes, competencies, and credentials of teachers in underperforming, urban classrooms compared to those qualities of teachers in more affluent, suburban school districts" (Boggess, 2010, p. 65).

In conclusion to this section, there are few empirical studies of urban teacher residencies. None of the studies identified here directly addresses the research questions of the current study. Campbell's (2012) study of the mediated field experience is among the most interesting and germane. Having course instructors accompany teacher candidates to the practicum setting and engage, along with mentor teachers, "in a cycle of

planning, observing, debriefing, and reflecting" is an experimental solution to the kinds of theoretical problems and challenges facing teacher education that are described in this literature review (p.171).

Conclusion

This review of historical, theoretical, and empirical literature provides a foundation for the present study. Part one of the chapter reviewed the evolution of teacher education from the normal school, then examined the PDS as the predecessor of the UTR. The review of theoretical literature in part two was organized into several sections, each of which was framed around a question. A review of the limited empirical research literature followed in part three.

Research on teacher learning is nothing if not complex, and the volume and range of teacher education research is staggering. Organizing the theoretical foundations for case studies, which are usually theory-heavy, presents an additional challenge. The introduction of two unusual terms extended this literature review significantly.

Chapter 3

Methodology

Introduction

This chapter explains the methods employed in the study. The purpose of the study and the research questions will be stated. The research methodology will be described. Context, access, and participant selection will be explained. The research design was emergent (Creswell, 2013; Glatthorn & Joyner, 2005; Lincoln & Guba, 1985), but actual data instrumentation, collection, and analysis will be described. Finally, the issues of trustworthiness, validity, and reliability will be discussed.

The purpose of the study was to explore the concepts of praxis and locus as they pertain to teacher education practices and novice learning in an urban teacher residency program located in Denver, Colorado. The research questions were: 1) In what ways is teacher learning deliberately situated in the residential setting of a K-12 classroom? 2) In what ways do clinical practices, learning experiences, and curricula develop the capacity for praxis in residents?

A Qualitative Study

Qualitative studies are appropriate in the study of teacher education, "where the immense complexity of human nature and the elusive and intangible quality of social phenomena contrast strikingly with the order and regularity of the natural world" (Cohen et al., 2011, p. 7). A qualitative approach assumes that phenomena are best understood when their meaning is co-constructed by participants, and/or by participants and researchers together (Cohen et al., 2011). Qualitative research is based on "the view that reality is constructed by individuals interacting with their social worlds" (Merriam, 2001,

p. 6). Qualitative research acknowledges and respects value pluralism (McMillan & Schumacher, 2010). Qualitative research also values "beneficence, respect and the promotion of social justice" (Cohen et al., 2011, p. 33). More importantly, qualitative research rejects the notion of the neutrality of concepts, programs, and/or research studies, and strives to surface and communicate values and biases (Cohen et al., 2011; Lincoln & Guba, 1985).

A qualitative approach was appropriate for exploring the stated research topic and answering the stated research questions. Although quantitative studies of urban teacher residencies have been conducted, they are inappropriate to address the kind of research question posed in this study:

> The study of social entities such as teacher education is apt to be advanced least by adherence to the classical natural science modes of inquiry. Meaningful isolation and control of variables in complex social affairs is rarely, if ever, possible and is not recognized, therefore, as a particularly fruitful line of contemporary inquiry in teacher education. (Lanier & Little, 1986, p. 528)

A qualitative approach was especially well suited to the study of a particular example of a teacher education program model. Although the Urban Teacher Residency United (UTRU) has guidelines and general tenets, it encourages local initiatives to grow programs with local needs and considerations in mind:

> Qualitative forms of research, such as case studies and ethnographic research, could be valuable in exploring the ways teacher preparation is locally enacted, how its multiple and dynamic contexts influence the ways resources are used and interpreted by individuals and groups . . . and what meanings and understandings

participants construct within different contexts. (Cochran-Smith & Zeichner, 2005, p. 51)

A Case Study

Ultimately, a researcher's choice of methodology must be based on fitment for purpose. The chosen approach must be, a) consonant with the researcher's theoretical foundations, b) the best suited to providing an answer to the research question, and c) the most feasible. Marshall and Rossman (2011) frame these considerations as the "Do-Ability," the "Should-Do-Ability," and the "Want-to-Do-Ability" (p. 4). A case study approach met these criteria, and was appropriate for this investigator and the proposed study.

Case study is a common methodology used in medicine, business, law, sociology, and anthropology. Case studies focus on specific instances in order to flush out the general principles of phenomena, in other words, "to reveal the properties of the class to which the instance being studied belongs" (Merriam, 2001, p. 29). In teacher education, case study has several advantages. Most importantly, it provides a way to examine complex social phenomena in situ:

> Anchored in real-life situations, the case study results in a rich and holistic account of a phenomenon. It offers insights and illuminates meanings that expand its readers' experiences. These insights can be construed as tentative hypotheses that help structure future research; hence, case study plays an important role in advancing the field's knowledge base. (Merriam, 2001, p. 41)

At their best, case studies "provide a unique example of real people in real situations, enabling readers to understand ideas more clearly than simply presenting them with

abstract theories or principles" (Cohen et al., 2011, p. 289). Case studies can be uniquely persuasive, and are "an effective means for communicating ideas about practice, but they are much more. Cases and case studies are stories that, in their telling, invite the reader to question and explore personal values and understandings" (Bullough, 1989, p. xi).

Case study research adheres to constructivist and interpretive traditions. Case study researchers engage in deep investigations, and assume that the whole is greater than the sum of its parts. "A distinguishing feature of case studies is that human systems have a wholeness or integrity to them rather than being a loose connection of traits, necessitating in-depth investigation" (Cohen et al., 2011, p. 289). Case studies are "particularly suited to situations where it is impossible to separate the phenomenon's variables from their context" (Merriam, 2001, p. 29). In case study, the researcher is considered the instrument of data collection, and as such, is permitted to bring experience, expertise, and values to bear on data collection and analysis (Merriam, 2001).

A defining feature of case study method is the notion of a *bounded system* (Cohen et al., 2013; Merriam, 2001). Investigators must determine a clearly delineated case, "a thing, a single entity, a unit around which there are boundaries" (Merriam, 2001, p. 27). In education research, this may be an individual, a classroom, an institution, a school, or a program. Cases may also be bounded geographically, temporally, organizationally, or institutionally (Cohen et al., 2011). The importance of defining a bounded system receives significant attention in the literature. Merriam (2001) writes, "the single most defining characteristic of case study research lies in delimiting the object of study, the case" (p. 27). In the current study, the case was defined as the Denver Teacher Residency program. Because this kind of program involves so many institutions, schools,

participants, and a virtually infinite range of features worthy of investigation, the case was specifically focused on teacher education practices and novice learning. Geographically, the case included those locations where novice learning could be observed, included meeting rooms and classes at Morgridge College of Education, on the campus of Denver University, as well seven of the 18 Denver public schools serving as host schools for residents in the program. The case was also bounded temporally. Data collection took place between April and August of 2014. During this period, the fifth cohort (2013/2014) completed the program, and the incoming cohort 6 (2014/2015) began the program.

Merriam (2001) further describes case studies as "particularistic, descriptive, and heuristic" (p. 29). Here, the term *particularistic* refers to a specific and narrow focus; the term *descriptive* refers to the case study report, which should include rich or *thick description* (Lincoln & Guba, 1985) and the acceptable use of "prose or literary techniques to describe, elicit images, and analyze situations" (as cited in Merriam, 2001, p. 30); *heuristic* refers to the expectation that a case study contribute to a greater understanding of the phenomenon investigated. Merriam (2001) adds, "case study has proven particularly useful for studying educational innovations, for evaluating programs, and for informing policy" (p. 41).

Theory plays a critical role in case study research, and "case studies in education are often framed with concepts, models and theories" (Merriam, 2001, p. 19). Case studies are often described as building on *substantive* theory and "focus[ing] on some aspect of educational practice" (Merriam, 2001, p. 19).

There are several forms of case studies (Cohen et al., 2011). Researchers identify cases that are exemplary, educative, or inherently interesting. Other categories include the historical, interpretive, intrinsic, and evaluative. Researchers conduct what are called multiple, collective, or cross-case studies. The specific form adopted for this single case study could be described as either *instrumental* or *analytical*. In the former, "the researcher focuses on an issue or concern, and then selects one bounded case to illustrate the issue" (Creswell, 2013, p. 99). The later, an analytical case study, is "differentiated from straightforward descriptive studies by . . . complexity, depth, and theoretical orientation" (Merriam, 2001, p. 39).

Selecting a methodology entailed considering this researcher's dispositions and skills: tolerance for ambiguity, good communication and listening skills, and sensitivity for ethical concerns (Merriam, 2001).

Context and Access

The context of the study was the Denver Teacher Residency (DTR), a district initiated program designed to recruit, prepare, and retain teachers to meet the needs of Denver's diverse urban student population. Supported by Denver University's Morgridge College of Education, this is a one year post baccalaureate program that provides residents with a yearlong, paid apprenticeship. Successful students earn an M.A. and licensure. In its fifth year (2013/2014), the program admitted 75 residents. The Manager of Program and Curriculum granted access, and helpfully facilitated the research in a variety of ways, including coordinating schedules, introducing the researcher to program participants, and inviting the researcher to various meetings and social events.

Participant Selection

In keeping with the parameters of a qualitative case study, sampling was purposive (Cohen et al., 2011; Creswell, 2013). Participants included: residents, mentor teachers, the Manager of Program and Curriculum, field managers, and adjunct instructors. Out of a total of 65 residents still enrolled in the program in the spring, 15 initially agreed to participate in the study and signed consent forms. Of these, four did not respond to a follow up email requesting a date for an interview. The remaining 11 were interviewed once; nine were interviewed twice.

It was not possible to recruit all of the mentor teachers of residents who participated in the study. After interviewing residents, three mentors were purposively selected on the basis of their being identified by residents and the researcher as strong mentors. All three agreed to participate and were interviewed. Additionally, two mentors identified as less effective were asked to participate, but declined to interview (criteria for identifying better mentors will be described in Chapter 4).

The Manager of Program and Curriculum was interviewed formally and informally on multiple occasions. Three of the four field manager/instructors were interviewed. The researcher observed each of these participants teaching. The researcher also observed eight adjunct instructors teach.

After approval of the research proposal by the dissertation committee, approval of the Institutional Review Board for the Social and Behavioral Sciences (IRB) at the University of New Mexico was obtained. In addition, permission to conduct research in Denver was granted by the Department of Assessment, Research and Evaluation (RRB), at Denver Public Schools.

Instrumentation and Data Collection

The general course of action for this case study included employing the researcher as the primary instrument of data collection. Strong case studies require prolonged engagement and persistent observation (Lincoln & Guba, 1985) and the study entailed spending over 20 days in Denver observing classes, interviewing participants, and visiting schools. Twenty-eight semi-structured interviews were recorded using a laptop and simple audio software (see Appendices for interview questions). In addition, the researcher spent approximately 15 hours reviewing documents on the program's SharePoint site (DTR Hub), to which access was granted.

Case study is agnostic with respect to data collection and analysis. "Any and all methods of gathering data . . . can be used" (Merriam, 2001, p. 29). Multiple and various forms of evidence are considered essential to building trustworthiness in case studies (Cohen et al., 2011; Creswell, 2013). Although common in case studies, this study did not include surveys. The study employed interviews, non-participant observation, and document analysis.

Data Analysis

Data analysis entailed "systematically "watching," "asking," and "reviewing"' (as cited in Merriam, 2001, p. 148). Recursive interim data analysis included thick description of the case, identifying themes, and developing interpretations and assertions (Creswell, 2013). "Understanding the case in its totality, as well as the intensive, *holistic* description and analysis characteristic of a case study is a recursive, interactive process in which engaging in one strategy incorporates or may lead to subsequent sources of data" (Merriam, 2001, p. 134).

In case study research, where the design is emergent, the investigator must

analyze and collect data simultaneously (Merriam, 2001). Beyond this imperative, there are no formulae or recipes for data analysis (Marshall & Rossman, 2011). Authors describe the process as recursive, iterative, and intuitive (Marshall & Rossman, 2011; Merriam, 2001). The specific technique for data collection used in this study was multi-stage. In each stage the researcher repeated the same series of steps: 1) collection, 2) immersion (Marshall & Rossman, 2011), 3) annotation and interrogation, 4) composition of analytic memos (Marshall & Rossman, 2011), 5) comparison to previous data set, and 6) determination of data, questions, focus, etc. for the next stage (Merriam, 2001).

Novice researchers are implored to attend to management of data, the volume of which can quickly overwhelm the qualitative investigator. Coding is considered a very important technique. In addition to coding, accurate and detailed record keeping is essential to the research process. This is essential to data analysis, as well as maintaining a clear audit trail (Merriam, 2001). In addition to detailed notes, and analytical memos, the researcher maintained a data collection log, a memos table of contents, calendars, email records, and various spreadsheets. Aside from standard word processing and spreadsheet programs, no other computer software was used to organize or analyze data. During observations, the researcher audio recorded field notes, which were then word processed, typically within 24 hours. Interviews were audio recorded on a laptop, using a built in microphone and recording software. It was hoped that the absence of a large microphone, and/or unfamiliar recording equipment would diminish any discomfort participants might feel while being recorded. Three follow up interviews were conducted via FaceTime. Audio recordings of the interviews were written up as field notes. From these field notes, memos were composed and themes identified.

Trustworthiness is predicated on the validity, reliability, and ethical conduct of research studies. The term *validity* refers to the researcher's interpretation of data. The two most common types of validity are *internal* and *external*. When considering the internal validity of a study, a reader asks, "Do findings match reality?" (Merriam, 2001, p. 201). Several techniques for enhancing the internal validity of the current study were employed: (a) prolonged engagement and persistent observation (Lincoln & Guba, 1985; Merriam, 2001), (b) triangulation (Cohen et al., 2011; Marshall & Rossman, 2011; Merriam, 2001), (c) consideration of alternative explanations (Marshall & Rossman, 2011) (d) investigator's position (Merriam, 2001), as well as e) member checking (Cohen et al., 2011; Marshall & Rossman, 2011; Merriam, 2001).

Assuming that a study is internally valid, the question that follows is whether or not the results of a study are externally valid, or generalizable. Although this is desirable, if not essential, in quantitative research, in qualitative research it is neither. Some qualitative researchers claim limited or cautious *transferability* (Lincoln & Guba, 1985). This researcher instead attempted to establish *reader*, *user*, or *case-to-case generalizability,* (Merriam, 2001), which "involves leaving the extent to which a study's findings apply to other situations up to people in those situations" (Merriam, 2001, p. 211). Interested readers must determine for themselves the extent to which this study's findings are applicable.

Another factor contributing to a study's trustworthiness is reliability, which refers to whether or not a study can be replicated. In qualitative research replicability is neither necessary nor possible (Merriam, 2001). Lincoln and Guba (1985) propose the alternative concept *dependability,* arguing that it better fits the qualitative paradigm. As

Merriam (2001) explains:

> Rather than demanding that outsiders get the same results, a [qualitative] researcher wishes outsiders to concur that, given the data collected, the results make sense —they are consistent and dependable. The question then is not whether findings will be found again but *whether the results are consistent with the data collected* [emphasis in original]. (Merriam, 2001, p. 206)

In addition to validity and reliability, ethical conduct of the research study is imperative. Above all else, this researcher endeavored to protect all participants from harm. The researcher made every effort to insure participants' privacy, and obtained informed consent. Although the layperson might not anticipate harm following from qualitative data collection methods, in fact, methods such as observation and interview can raise ethical considerations. The researcher did not interject comments or participate in any classes observed. The researcher also declined to respond to requests for feedback after observing instructors. The researcher was able to establish a collegial rapport with the gatekeeper, the Manager of Program and Curriculum.

Summary

This qualitative investigation employed an analytical case study of emergent design. This chapter explained the methods used in conducting a study of the Denver Teacher Residency to determine in what ways teacher learning is deliberately located in the residential setting of a K-12 classroom, and in what ways clinical practices, learning experiences, and curricula develop the capacity for praxis in residents.

Chapter 4

Results

As stated in Chapter 1, the purpose of this study was to explore the concepts of praxis and locus as they pertain to teacher education practices and novice teacher learning in the Denver Teacher Residency. The term praxis refers to adaptive expertise, or practical reasoning, problem solving, and wisdom informed by theory in practice. The term locus refers to a nuanced and comprehensive way to consider the K-12 school and classroom as the essential location for learning to teach. The first question in this study asked, *In what ways is teacher learning deliberately situated in the clinical setting of a K-12 classroom?*

Analysis of the data revealed that teacher learning is potentially situated in the clinical setting of a K-12 classroom in three ways: 1) in the basic design of a residency program, 2) in how the program defines the teacher educator roles, and 3) in adopting the local district's evaluation framework.

The second research question asked, *In what ways do clinical practices, learning experiences, and curricula develop the capacity for praxis in residents?* Although praxis is not a goal of the DTR program, the potential of clinical practices, learning experiences, and curricula to develop praxis was investigated. The exploration of clinical practices focused on mentoring, and effective mentoring was found to have the greatest potential to develop praxis in residents. While residents valued their school-based learning activities, it was not possible, based on the data collected, to form a conclusion as to whether residents developed a capacity for praxis from these experiences. Curriculum was also suspected to contribute to the development of praxis. For reasons that will be explained,

this was the most difficult facet of the praxis question to investigate. The researcher began the investigation with a narrow definition of curriculum (the subjects, topics, and texts comprising courses), which proved inadequate. Furthermore, data analysis led to an important question: Is the goal of curriculum a rigorous, academic, graduate level teacher education? Or, is the goal to produce an effective urban teacher with basic classroom competence, able to deliver measurable student achievement? While these two objectives may not be mutually exclusive, they appear to compete with one another.

The investigation of curricula was further complicated by an unwritten curriculum, which conveys values related to social justice, closing the achievement gap, and becoming an agent of change. Study participants referred to this as the "Kool-Aid." This topic will be addressed in Chapter 5.

The research design for the study was emergent (Cohen et al. 2011; Creswell, 2013; Glatthorn & Joyner, 2005; Lincoln & Guba, 1985), and included extensive fieldwork and interim analysis (Creswell, 2013). Data collection included nearly 30 semi-structured interviews with, and multiple observations of program participants, as well as document analysis. Data was collected over the course of 20 days in Denver. Recursive interim data analysis entailed thick description of the case, identifying themes, and developing interpretations and assertions (Creswell, 2013).

This chapter is organized into two sections, one for each of the research questions. In the first section, which will address the locus question, three ways in which teacher learning is situated in the classroom will be explored: 1) the basic design of a residency program, 2) how the program defines teacher educator roles, and 3) adoption of the local district's evaluation framework. In the second section of the chapter, which will address

the praxis question, the potential of clinical practices, learning experiences, and curricula to develop praxis will be explored. The findings will be presented in detail, and supported by evidence collected from observations, interviews, and document review.

Results: Locus

In what ways is teacher learning deliberately situated in the clinical setting of a K-12 classroom?

Residential Design

The most impactful way in which teacher learning is situated clinically is in the residency model itself, which entails a yearlong apprenticeship. A resident spends four days a week in a classroom, and one day in courses at Denver University. This practicum officially begins during a week of professional development prior to the first day of school, and continues until the end of the school year. Residents work with their mentors, shoulder to shoulder, "day in and day out" (Manager of Program and Curriculum [MPC]). Many residents actually begin collaborating, and "soaking it in" prior to the beginning of the school year (MPC). Eighteen percent of study participants mentioned the value of bonding with their mentors early, and developing strong relationships. The residency design provides a full-time student teaching experience of approximately 1,200 hours, significantly more than the clinical component of typical preparation programs. Due to the duration and intensity of this field experience, residents are thoroughly initiated into the "daily rituals of teaching," and become deeply involved in the life of the host schools where they spend the year (Mentor [M]13).

When asked to discuss the process of selecting this program, residents identified the paid residency, earning a prestigious M.A. from Denver University, and/or the financial structure (loan forgiveness in exchange for five years service in a Title I school)

as considerations in their decision to apply. Twenty-seven percent of residents indicated that the most important factor was the amount of time they expected to spend learning to teach under the supervision of a skilled teacher:

> In other programs you do like two months in the classroom as a student teacher . . . I don't think you're prepared enough. This isn't really a career where I would feel comfortable learning as I go . . . at the expense of children's education. I think that's the problem with TFA, and why they get such a bad rap . . . that they allow teachers to flounder while they learn to teach . . . I wanted this one where I got a full year of supported experience. (Resident [R]13)

Another resident put it this way:

> Having that mentor for the entire residency year was huge. Because I am the first to admit that I don't know everything. The traditional student teaching model . . . you know, you get a couple of weeks, a month or two . . . is not enough. And I knew it wasn't enough for me. (R2)

Spending four days a week in the host school, for an entire year, seemed to amplify learning, and allow residents to "see things" (M13). A resident described it this way:

> Other programs have a clinical component, but I can't imagine getting those six weeks and then being set free and feeling like I know exactly what I'm doing. I know how to do this. And you know, thinking back, I'm a better teacher than I was two weeks ago. And all the little things you pick up that now you do so naturally. (R9)

Residents were immersed in the faculty community, and well informed about school goals and district assessments. Residents were familiar with student demographics, their students' families, and surrounding neighborhoods.

This kind of engagement with the host school and the mentor's classroom appeared to extend opportunities for learning, which residents reporting often occurred in "conversations interspersed throughout the day, and whenever possible" (R13). Although there were a few exceptions, residents overwhelmingly indicated that the "learning really happens" in the host classroom (R6). "All of my aha moments," as one resident put it, happened there, "usually in the middle of a lesson" (R13). Residents reported that learning frequently happened "in front of kids" (R6). One of the field managers (field managers have clinical and instructional responsibilities, and their role will be explained below) elaborated on this sentiment, and emphasized the value of learning from mistakes:

> The year-long practice in trying something, being able to fail, and come back and make improvements. And just having that time span helps . . . Not only being able to fail, but having conversations about why . . . that reflection piece . . . and building that grit. (Field Manager [FM]4)

The locus continuum.

One of the most important interview questions designed to help the researcher explore the importance of the residential design was posed to residents along with a representation of a continuum on paper. At one end was the word *university*, and at the other end were the words *host school.* Participants were asked, "Where on this continuum would you say your most significant learning occurred?" A distinct pattern emerged from responses to this question. Fifty-four percent of the residents pointed to the host school,

twenty-seven percent pointed to a spot in the middle, and eighteen percent pointed to the university end of the continuum. Those who identified the host school as the site of greater learning were often enthusiastic in explaining:

> Most of my learning has been here in this school . . . It is so much closer to the host school. I have learned so much more being in a school and working in a school for a year than anything that my classes could have prepared me for, even though the instructors are from the district. (R6)

Another responded: "Here, definitely" (R8). Without prompting, this resident elaborated:

> The theoretical stuff was useful at the beginning, but once we jumped into the school year we had a pretty good understanding of theory, and getting real concrete examples really helped . . . and that's the thing. That's why I wanted to join the program. I wanted the degree and everything, but the degree isn't gonna make me a good teacher, it's the practice. (R8)

A few of the residents had trouble answering the continuum question. Some participants struggled with the concept of the continuum itself, wanted to add another axis, or offered an analogy (e.g., a ping pong ball bouncing back and forth between the university and school). Others pointed to a spot in the center of the continuum. "I wanna say it's in the middle" (R2). Those who indicated their learning happened at the school, and those who indicated it was in the middle, described taking ideas from the university back to the classroom. "I've learned strategies, content, and theory. But that can only take you so far unless you put it into practice, and you screw up and you figure out what doesn't work and what does" (R6). Another resident explained it this way:

> I take a lot of what we're learning at DU and apply it to the host school. But if I

didn't have the host school and my mentor, and all of the observations that they provide for you, then this [the university] wouldn't really mean as much. (R2).

Temporal consideration.

Several participants wanted to qualify their answers with a temporal consideration. In other words, they felt that the locus might have shifted from the university toward the host school over time. "At the beginning of the year, closer to the university. But now it's here at the school" (R15). This makes sense because during the summer session in June and July, residents had not begun work at the host schools, and their coursework at the university was more theoretical. "The line is pinched . . . of course in the summer . . . something was missing" (R12).

All of the non-residents interviewed for the study corroborated this pattern. When presented with the continuum, the Manager for Program and Curriculum pointed to the host school end. "This is the driver, and this is what makes the residency unique" (MPC). One field manager answered, "Closer to the host school" (FM6). Another field manager responded, "More so towards the host site" (FM2). Like the residents, field managers addressed the relationship of university studies and fieldwork. The university "creates a framework, but the host school is where it [learning] really happens" (FM2). The Manager of Program and Curriculum added: "They would never be successful here [pointing to the school end of the continuum] if they didn't have what's happening here [pointing to the university end]" (MPC).

One of the field managers echoed the residents' temporal consideration:

As far as giving them the foundations, especially around teaching strategies and lesson planning, and that kind of thing, definitely [at the university]. But as the

year goes on (and not that they're still not getting stuff from their coursework at DU) . . . applying it at the host school is where they're really learning the most. (FM4)

Exceptions.

There were exceptions to the pattern. Two residents unequivocally pointed to the university end of the continuum as the locus of their most significant learning. Analysis of the data suggests that mentors and mentoring were factors explaining why the locus of learning for these two residents was not at the host school. Interviews with the field managers corroborated this explanation, with a slightly different emphasis, specifically a "bad mentor match" (vs. a poor mentor) (FM6).

It was interesting that both residents had apparently given the matter considerable thought. After a lengthy pause, one of these residents said, "I've thought about this a lot . . . I think there's more learning at the university" (R3). Because variance is so important to case studies, and because this issue was so critical to answering the research question, the topic was revisited in follow-up interviews. This provided an opportunity for member checking, and for attempting to better understand the experience of these two residents. Although reluctant to criticize their mentors, both indicated that they struggled to learn from them, or in their classrooms, and therefore turned to the university to fill the gap. As one resident put it, "It was a function of the mentor" (R3). The other resident said that he liked his mentor, but "trusted his professor," adding, "I don't know if he was a fantastic teacher, or mentor . . . a lot of kids were disengaged . . . at a certain point, probably after a couple weeks, I just stopped learning from him" (R16).

Better mentors.

In contrast to the two residents who stated that their learning took place at the university, the nine who stated that it took place in the host classroom, or between the university and the classroom, appeared to have stronger mentors, as well as better, or more compatible host schools. Because the quality of mentoring and host schools seemed to explain the pattern, the researcher pursued this issue in interviews with non-residents, and in the second round of interviews with residents. Through analysis of data collected, *better mentors* were defined as those whose residents reported greater satisfaction, and who exhibited the following behaviors, dispositions, and characteristics (identified by residents, in no particular order):

- Initiated residents into daily rituals of teaching
- Engaged in substantive and continuous dialogue w/ the resident
- Co-planned lessons and curriculum with the resident
- Invited the resident to voice opinions, and comment on the mentor's own teaching
- Offered specific, limited, practical, and actionable feedback
- Honored DTR program supervision, timelines, suggestions, etc.
- Were DTR alumni, or shared DTR values
- Shared their own professional evaluations (LEAP)
- Enjoy "this kind of conversation" (about teaching, learning, and learning to teach)
- Think out loud about how to teach better, or solve classroom problems
- Think of themselves as learners, or unfinished teachers
- Coached the resident in a Socratic fashion
- Were deliberate, thoughtful, and metacognitive in their approach to mentoring
- Were available
- Were willing to give up the reins, allow residents to try and fail
- Were better able to reveal their own teacher thinking
- Were themselves effective teachers
- Experienced better mentoring themselves

Better host schools.

In addition to the strength of mentor teachers, characteristics of the host schools seemed to have a bearing on the locus of residents' learning. The 11 residents who participated in the study were assigned to seven different host schools (in all, there were

18 in the 2013/2014 school year). On the basis of data collected in these interviews, as well as visits to the host schools, a picture of better host schools emerged. *Better host* schools were defined as those whose residents reported greater satisfaction, and which exhibited the following characteristics (identified by residents, and listed in no particular order). Better host schools:

- share the target student demographics for the program (high FRL%, high ELL%)
- are stable institutionally (not undergoing restructuring or reconstitution)
- exhibit a positive and collaborative faculty culture, not "us vs. them" (M12)
- have strong principals who support the DTR mission and vision
- embrace residents (who are to some extent mentored by a faculty at large)
- exhibit a positive school culture. The staff is "very welcoming… a very warm environment" (R2)

An analysis of host school student demographics resulted in an interesting finding. The program's host schools for the 2013/2014 school years were, in general, demographically similar to Denver Public Schools. For example, the minority population of DPS is 78.8%; and the average minority population of the 18 host schools was 82.7%. The Free and Reduced Lunch population of DPS was 71.1%; and the average Free and Reduced Lunch population of the host schools was 84.1%. One of the host schools, however, was demographically dissimilar from host schools and Denver Public Schools. This particular school had a minority population of 51.9 %, and Free and Reduced population of 52.7%. One of the residents who reported that learning took place at the university (one of two exceptions to the pattern) was assigned to this demographically atypical host school.

Another interesting pattern emerged. The two residents who reported that their learning was at the university were assigned to schools that only accommodated two residents. The other nine residents, who were enthusiastic about their school-based

learning, were assigned to schools hosting three or more residents. It is interesting that their host schools also had a strong DTR presence. In one case, fully 80% of the faculty was composed of DTR graduates. At another strong host school, the mentor was a DTR graduate. This researcher suspects that having a minimum number of residents at a school, and therefore a learning cohort, enhances school-based learning. Having a critical mass of DTR graduates on faculty at a host school may also impact a resident's learning.

Both exceptions to the locus of learning pattern were reported by residents matched to mentors exhibiting fewer qualities of better mentors. Both were placed at host schools without any DTR alumni. And both were assigned to host schools exhibiting few qualities of better host schools. A resident described the first of these schools as being "in a painful transition period" (R12). The past few years had been rocky, the faculty was divided over a controversial dual curriculum, the school was under district and community scrutiny, and the principal was new. The second host school was in the early stages of a complete reconstitution. This large, historic Denver school had been restructured into five independent schools now sharing the building. The resident was mindful of this setting. "If you're at a school that's struggling and trying to find its footing, having a student teacher there is an ify proposition" (R16).

Alternative explanations.

Although the quality of the mentors, the quality of host schools, and the absence of a cohort seem to explain why two residents felt that the locus of their learning was at the university, alternative explanations were explored. In the first case, the mentor teacher had only three years experience teaching, and no prior experience mentoring. It is interesting that this mentor, self-described as a fast track entrant to the profession, may

not have experienced better mentoring himself. This teacher also remarked that the request to serve as a mentor was a last minute, "parking lot" deal. It is possible this person was recruited out of a sense of urgency. The teacher didn't do advance planning on paper, which lead to a significant loss for the resident, as they couldn't plan together. The second mentor (M16) was experienced, however, he also did very little planning, the curriculum being driven by a consumable text.

In the second case, another explanation for reporting that learning took place at the university end of the continuum is plausible. This resident actually had two years of teaching experience. This is unusual, because applicants to the program who have a license are ineligible (this resident had taught at a private school). With two years of experience, perhaps this resident felt there was nothing more to learn from a mentor. Perhaps this resident was basically competent in the classroom, and the mentor felt no reason to worry, or that there was little to offer by way of mentorship. It would have been worthwhile to explore these explanations with these two mentors. Unfortunately, both declined to interview.

In conclusion to this discussion, one of the ways novice learning is deliberately situated in the clinical setting of a K-12 school, is in the residential design of the program, which affords significant opportunities for learning to teach. However, the quality of mentors and host schools appears to have a significant bearing on the locus of learning for residents. In only two cases (out of 11) did residents report that their most significant learning happened at the university. In both of these cases, the mentors were less strong (in the sense that they didn't exhibit the behaviors, dispositions, or characteristics of better mentors). In both cases, the host schools appeared to be less than

ideal settings for novice learning. Membership in school cohorts also appears to have a bearing on the degree to which residents' learning occurred at the host school.

How the Program Defines Teacher Educator Roles

The DTR defines the instructional and clinical roles of program faculty in ways that could potentially situate learning in the K-12 classroom. Although the clinical role of mentor is extremely important, the DTR does not define mentoring distinctively. In other words, DTR mentors' clinical supervision greatly resembles the work of a traditional cooperating teacher. Although mentoring will be examined in relation to the praxis question below, it will not be examined in this section investigating the locus question.

There are two categories of DTR faculty. As explained above, in addition to their clinical duties, field managers (FMs) also teach the program's most important course, the seminar. Denver Public Schools personnel teach the remaining courses. The researcher was surprised to learn that university faculty members do not teach DTR courses. This, despite the fact that, a) the program is sponsored by, and housed at Denver University's Morgridge College of Education, and b) DU issues the master's degree that successful residents earn. Adjunct instructors are teachers, instructional leaders, or program directors with significant experience in the district. These two arrangements (having field managers also teach seminar, and having district personnel teach remaining courses) could potentially help locate residents' learning in the host classrooms and schools.

Field managers.

The four FMs serve as instructors of seminar (a core class which meets during every one of the four quarters). Field managers value their familiarity with the district,

host schools, host classrooms, and mentors. One field manager explained that this allows for tailoring the curriculum of seminar, as well as personalizing instruction for residents:

> You see them in practice everyday when you're out in the field . . . where seminar comes in is kinda marrying that theory and practice. We can talk specifically about things that I saw in the field that align it to theory we're discussing at the time, [like] backward design, classroom management strategies, or whatever. (FM6)

Although all of the field managers who were interviewed valued this arrangement, and felt that time spent in the field enhanced their teaching of seminar, residents placed only modest importance on the arrangement. When asked, Does it make any difference that your class is taught by the field manager? A resident responded, "No, not really" (R16). It may be that residents simply have no way of knowing when the field managers are adjusting or personalizing seminar instruction. Furthermore, they have no basis for comparison (seminar instructors who are not also field managers).

In addition to teaching seminar, field managers have clinical responsibilities, which entail professional development for site coordinators and mentors. Some of their time is spent in resolving the inevitable problems and conflicts that arise. Although their primary responsibility is not supervision of residents, they do observe residents teach. Two residents reported learning a great deal from their field managers. Three residents felt that the field managers didn't have adequate time to mentor residents in significant ways. "Field managers didn't seem to have the time to work with residents. That's my impression" (R3). One resident explained the perception that "field managers played a larger role in the lives of residents who needed support" (R13). A few residents echoed

the sentiment that more field managers might be needed. “If there is anything that was lacking, just program wide, that was my interacting with the field manager . . . just a workload problem” (R8). The grade level and content area match between field managers and residents was also mentioned as sometimes problematic.

To conclude this discussion of the field manager/seminar instructor, as the role is defined, it would seem to helpfully bridge the instructional and clinical duties of teacher education faculty. It is difficult to determine, on the basis of this investigation, exactly what impact this arrangement has for locating novice learning in a classroom. An instructor’s familiarity with the district, host school, and mentor’s classroom may help to enhance and personalize seminar instruction. “Not only does it bridge those two areas together, but you get to know your students so well” (FM4). When asked to explain, this field manager elaborated. “It gives me more of a perspective about who they are . . . sometimes a student may struggle in your classroom, academically, or with papers, but is actually a strong classroom teacher. I wouldn’t have known” (FM4). However, the potential of this arrangement to situate novice learning clinically is greater than any demonstrated effect.

Adjunct instructors.

A distinctive feature of the Denver Teacher Residency is the deliberate practice of recruiting district personnel as adjunct faculty. Although the researcher entered the study suspecting that this arrangement could help to situate residents’ learning in the classroom, initial data analysis raised doubts. The residents had a great deal to say about their instructors and courses, so much so that the researcher was compelled to pursue these issues, and to interpret their criticisms. Interviews with residents, along with multiple

observations of several instructors in various courses, surfaced two themes. Analysis suggests that just as the quality of mentors and host schools has a bearing on a resident's locus of learning, the pedagogy and instructional paradigm of adjunct instructors have a bearing on a resident's academic learning in courses. In follow-up interviews with residents, these issues were framed in questions about the adult or child education pedagogy of instructors, and the distinction between a training and preparation instructional paradigm. Although these theoretical distinctions were not immediately familiar, once explained, they did seem to resonate with study participants.

Although the researcher supposed that instruction by district employees and practicing K-12 teachers would be very significant for residents, their responses suggested that it mattered, to an extent. When asked, Did it matter that your instructors were from the district? A resident replied, "I enjoyed that, you get to hear what people in the district are doing" (R10). Another said, "I think so. They have experience in the same kinds of schools" (R8). One resident felt this arrangement was quite important:

> It's really helpful to me. For instance, in my sped classes my professor has been another sped teacher at a DPS school. And I know that she is practicing and applying these things, and that she is working with the same things. And that she's going through the same things as I am. I just think her advice corresponds more directly to what I'm experiencing. (R11)

These remarks suggest that residents perceive adjuncts who are working in the district to have a kind of street credibility that university professors are assumed to lack. Other responses indicted that residents hadn't given any thought to the issue. However, all of the residents had comments to share about their experience as students in courses taught

by adjunct faculty.

Adult or child education pedagogy?

Initial interviews revealed commonplace criticisms of coursework. For example, some residents complained that deadlines were frequently changed, or that expectations for assignments were unclear. "It doesn't do us any good to do things ahead of time because it will get changed . . . they've tried to be flexible, and it ends up stressing us out more" (R8). Some felt that time in class was not always spent productively. But a stronger criticism arose. Specifically, residents felt patronized. One comment, in particular, caught the researcher's attention: "Attending to the needs of an audience of adults, might have lowered some walls" (R13). This sentiment was corroborated by the researcher's observation of courses, and emerged as a theme in data analysis. Subsequent cycles of data collection included questions about the pedagogy of adjunct instructors. In follow up interviews, residents were asked, Do the adjunct instructors have a sufficient background in adult education? One of the participants responded:

> I did notice a little bit of a gap there. I think our field managers are great at teaching adults and running seminar. They're more versed in how adults learn and how to teach adults . . . Whereas some of our professors have taught us like we are fifth graders. And that is extremely frustrating. It's almost belittling. But it's because they don't have experience with adults. (R10)

Several residents echoed this characterization of adjuncts' teaching:

> A lot of time I feel like we're infantilized. It's like, ok . . . turn and talk to your neighbor . . . Just tell me what we need to do. Sometimes I feel like it comes across as being very condescending. (R8)

In addition, residents stated, "the activities need to be meaningful . . . they need to be explicit activities, not just 'turn, talk to your partner' about what you thought . . . it's frustrating" (R9). Given the busy schedule of these working graduate students, it is not surprising they cared about time. "Adults don't want their time wasted. Don't give us an hour to do something that would take 10 minutes" (R8).

The question of adult education pedagogy was also put to the Manager of Program and Curriculum, who responded, "You hit the nail on the head . . . I do agree that that's an issue." She added, "I don't know if the [adjunct] faculty really understands that distinction" (MPC).

Training or preparing?

In addition to the adult or child education pedagogy of adjunct instructors, the question of their instructional paradigm surfaced. While a few observed classes seemed designed to encourage residents to think, reflect, interrogate, analyze, or construct knowledge (reflecting a preparation paradigm), several courses seemed designed to dispense information (reflecting a training paradigm). A training approach was evident in a special education course, where the emphasis of the observed segment was on how to avoid litigation. A training paradigm was also evident in many segments of instruction devoted to the district evaluation framework. In both cases, students were not asked to consider *why*, only to understand *that.*

During another course this researcher observed, an adjunct instructor presented *The Global Achievement Gap* (Wagner, 2010). Students had not been asked to read the text, but the instructor described its premise, which has to do with the knowledge economy and the workforce preparation mission of public schools. The instructor

presented the author's seven survival skills (critical thinking, problem solving, collaboration, leadership, initiative, etc.) by projecting a paragraph-length quotation explaining each one. The instructor seemed concerned (and a follow-up conversation confirmed this) with connecting the book to the residents' field experiences, frequently asking, "What does this skill mean?" or, "What does this have to do with . . . ?" Ironically, this segment was lecture based, and didn't engage students in any of the 21st century skills that the instructor was describing. Nor were students invited to interrogate the author's basic assumptions, that the primary purpose of public education should be workforce preparation, or that capitalist economies employ numerous critical thinkers. Although likely effective in his district work and likely having significant expertise, this adjunct instructor seemed to teach his DTR students from a training paradigm. From the researcher's perspective, his instruction resembled a typical professional development session at a K-12 school. Observation of these lessons helped to explain the kinds of frustration residents were describing, and underscored the importance of a distinction between the two instructional paradigms.

A preparation paradigm was much more prevalent in the seminar, where instruction was more likely to be Socratic than didactic. Prominent examples included activities designed to prompt residents to deliberate on the importance of race, gender, socio-economic status, and privilege. In contrast to the non-seminar courses, seminar instruction was interactive, discussions were lively, and participation was extensive. A greater variety of activities and teaching strategies seemed to engage students more fully.

Although most of the residents were unfamiliar with the difference between training and preparation, several indicated that it made sense, and in fact helped them to

think about their experience in courses. After explaining the distinction, the investigator asked if their courses felt more like training or preparation. One resident responded:

> You're spot on. I'm glad you said that because I think it helps me frame my frustration sometimes. Yes, they are trying to impart their experience and knowledge . . . And I think that's how districts do it. You go out and do a PD . . . it's more training, they're giving us things to bolster what's happening here [in the classroom]. They really are training us . . . Some other classes have been . . . we had this math class that was really solid, like this is how kids develop number sense. And I remember we were all so in love with that class . . . and I think it's because it was a break from the training and saying, 'Here's some of the method behind the madness' . . . So she would say, 'Here's how it would look in your lesson, but here's what is going on in their minds.' So that's a class I'm constantly going back to. (R13)

Assuming that elements of both preparation and training are needed in any teacher education program, the researcher asked if an instructor's clarity with respect to the instructional paradigm, or the expected outcomes of a given class, segment, or course would make any difference. A few residents indicated that this could have helped:

> There were certain classes that I was frustrated with. At certain times, to be completely frank, I was sitting there wondering, What am I doing here? Especially in the thick of it, in the middle of the year. When you're that busy, it's kind of on the professor to make this worth my while . . . if they had done something like that, and been very explicit, and said either training or digging deeper, then I would have known what the purpose was . . . we want to know what is going on, and what is expected. (R15)

Another resident agreed:

> I can see that …both aspects are present. But that distinction is never made . . . I think that's where some frustration comes in. People want to be taught how to do things. You want to be trained . . . I had a problem in [my] class. How do I fix it? That kind of thing. So making that distinction would alleviate some of that. (R3)

Modeling best practices.

A surprising issue that arose while investigating DTR faculty revolved around adjunct instructors' modeling of best practices, which is sometimes assumed to be an advantage of having district personnel, or K-12 teachers lead education courses. While modeling the methods that instructors espouse is a reasonable proposition, it apparently backfired for study participants. Residents nearly unanimously reported feeling offended by the use of K-12 classroom management strategies. It "grinds on you" (R13). This critique was connected to feeling that they were not being taught as adults. "Another frustration [was that] sometimes they're modeling strategies in an elementary classroom, but then you're making an adult learner feel like a child . . . it's kind of counterproductive" (R15).

An alternative, or perhaps supplementary, explanation of this phenomenon has to do with the residents themselves. By all accounts, the typical DTR student has a type A personality. Virtually every study participant used this term to describe residents. A rigorous screening and admissions process (which admits fewer than 10% of applicants) selects for ambition, academic ability, and intelligence (among other qualities). Some of the study participants discussed tension between residents and adjunct instructors, which

they attributed to a lack of humility on the part of residents. One resident reported a little frustration with her peers, adding that the "residents could use some hubris" (R12).

To conclude this examination of DTR's adjunct faculty, while extensive K-12 experience and deep knowledge of effective teaching practices is an asset, a less robust adult education pedagogy appeared to be problematic. Their experience as trainers of colleagues in the district context seemed to translate poorly in the context of pre-service teacher education. Their teaching seemed to reveal a lack of familiarity with the distinction between training and preparation. Moreover, instructors seemed not to appreciate the distinction between *modeling* and *using* K-12 classroom strategies, with detrimental effects. The Manager of Program and Curriculum was very much aware of this issue, saying, "I need them [instructors] to understand. This is graduate level work. It's not a PD that you're running for two hours in the afternoon."

The Denver Teacher Residency program has deliberately fashioned the roles of field manager and adjunct instructor. In both cases hiring practices emphasize classroom and district experience, as well as compatibility with program values. The field manager role helpfully unites clinical and instructional responsibilities that are often separated in traditional programs. The impact of these program features for deliberately situating learning in a K-12 classroom, however, is difficult to establish. Based on analysis of data collected for this study, the potential impact appears greater than any demonstrated impact.

Adopting the District's Evaluation Framework

The third and final way in which the program helps to situate learning in the clinical setting of a K-12 school is in the adoption of, and emphasis on the local district's

teacher evaluation framework, Leading Effective Academic Practice (LEAP). The LEAP framework is intentionally woven into virtually all curricula and instruction. Performance indicators from the framework are deliberately described, explained, and illustrated in courses. Virtually all assignments reference LEAP. And residents are evaluated on the basis of LEAP indicators. LEAP is introduced early in the program. During an observation of seminar in the first quarter, instructors used the *The Class* (2008), a film about a novice French teacher struggling with his culturally and linguistically diverse students in an urban Paris school. Students were asked to observe this teacher through the lens of the LEAP framework. In another class, the instructor focused on LEAP indicator, LE1 (Demonstrates knowledge of, interest in and respect for diverse students' communities and cultures in a manner that increases equity). This session was apparently designed to help residents translate the LEAP indicator into practice. On a projected slide was the heading, "Application to Establish LE 1." The instructor explained that it was "all about intention . . . self awareness . . . where you stand" (FM2). The instructor further explained:

> The residency is a sheltered environment, in terms of [your] not being a teacher of record. But next year you'll be on the numbered system [LEAP]. If you don't have a strong LE1, leaning will not occur. How are you going to do that? You're gonna create culture [in your classroom] and the culture you create is the culture you're gonna live with. (FM2)

In general, instructors taught the LEAP framework by explaining the indicator, helping students understand what it might look like in a classroom, and then providing additional resources and tips. For example, one instructor introduced a text, *The Five*

Love Languages (Chapman, 2010), and explained the value of establishing agreements, rules, or norms. In another class an instructor taught LEAP indicator LE 4 (Fosters a motivational and respectful classroom environment). In this case the instructor simply asked students to brainstorm a list of suggestions for creating a respectful classroom environment.

Residents unanimously appreciated this aspect of the program. For some, it was a matter of understanding how they would be evaluated the following year as a teacher of record. "I'm not at all worried about LEAP. I know I'll do fine" (R12). Residents described LEAP instruction as better, in general. "Sometimes they've been very successful, like with the LEAP" (R16). Classroom sessions devoted to LEAP were cited as examples of when "things will be like super relevant, when a topic was taught thoroughly . . . broken down, and it felt great. Now I know that indicator, and I know five things I can do in the classroom" (R6). Another resident explained that these lessons were helpful because instructors offered concrete examples of what an indicator looked like in a classroom, and what student and teacher behaviors look like. "And that is what is so useful" (R8).

> One resident explained that the framework helped her become more reflective:
>
> I've learned to be more reflective, not just reflective, because I think I always was . . . but to be reflective with a rubric now and a set of standards, so that I know what I'm looking for. So I'm more analytical. Maybe that's the most important piece. I think that I've learned how to analyze my teaching, and how to analyze my students' behavior, and their learning, and make adjustment that will be really meaningful. (R11)

The researcher asked this participant to elaborate, asking, What did you mean by rubric? The response was interesting:

> Before, when I would evaluate something, I think it was more based on my personal preference, which changes. And that's not a good indicator of the validity of something. So now I'm like, What is this for? How can I use it? How will it be beneficial to my students? How can they use it? I just ask more pertinent questions. (R11)

Residents also appreciated the kind of focus that the LEAP framework provided for learning. One resident spoke to this issue at length:

> The program would have the gradual release calendar and then would roll out indicators with LEAP. And so for a couple of weeks, you were focusing on rigor, differentiation, whatever it was. And so my mentor was very much in tune with that. She would take the template that they provided to her . . . [then she] would observe me during that time period. We would sit down and debrief. The two of us together would set goals for me, specifically for differentiation. And then she would observe me continually throughout that two-week process, tracking the different things we had selected. That was so helpful. I didn't feel overwhelmed. I'm working on these two things. And then it was like, Got it. Let's move on to whatever is next. (R13)

One mentor appreciated the deliberate manner in which the program focused on individual LEAP indicators for a few weeks at a time. "I could see that coming through. She [my resident] would say, How can I get more academic language?" (M12).

The researcher was surprised to discover that at one of the host schools, several of

the lead teachers (not just mentors, but other veterans on resident's team) shared their own LEAP evaluations with residents. "They talked to the residents about [their own] areas of strength and struggle, how, why, etc." (R6).

Does embracing the LEAP framework help to deliberately situate teacher learning in the classroom? In all likelihood, yes. Analysis of data collected in observations of courses and interviews with residents suggests that residents connected the LEAP framework to learning to teach in the locus of host classrooms.

Locus Conclusion

The first research question asked, *In what ways does the DTR deliberately situate teacher learning in the clinical setting of a K-12 classroom*? This investigation explored three ways in which this might occur: 1) in its basic design as a residency program, 2) in how the program defines the teacher educator roles of faculty, and 3) in embracing the local district's evaluation framework. Analysis suggests that two of these factors, the residency design and embracing the LEAP framework, are the most impactful ways in which the program situates novice learning clinically. With respect to the residency design, the quality of mentors, and the compatibility of host schools were identified as significant factors in determining the locus of residents' learning. Adopting the district's LEAP evaluation framework seemed to enhance and focus novice learning in a classroom.

In terms of a third factor, how the program defines the roles of field managers and adjunct instructors, results are inconclusive. Although field managers value time spent in the host schools, and believe that it enhances their teaching of seminar, residents identified only modest advantages to the arrangement. More interesting, and unusual for a

master's level program, is the practice of drafting district employees to teach the majority of courses. Problems were found to accompany this arrangement, specifically with the instructional paradigm and adult education pedagogy of these instructors. While these issues are likely resolvable, currently the practice does not help to situate learning clinically. In conclusion, the DTR situates learning clinically by adopting a residential design, and by adopting the local district's teacher evaluation framework. The practice of drafting district personnel as instructors does not help to situate learning clinically.

Results: Praxis

In what ways do clinical practices, learning experiences, and curricula develop the capacity for praxis in residents?

The second research question asked, *In what ways do clinical practices, learning experiences, and curriculum develop the capacity for praxis in residents?* Although praxis is not a goal of the program, the potential of clinical practices, learning experiences, and curricula to develop praxis was investigated.

The exploration of clinical practices focused on mentoring, and effective mentoring was determined to have the greatest potential to develop praxis. Although residents greatly valued the (host) classroom learning experiences, insufficient data was collected to support any conclusions about the effect of these experiences for the development of praxis. Curriculum was the most difficult facet of this research question to investigate. Due to its centrality to the program, the researcher investigated the seminar, and how theory was presented in courses generally. The operative assumption was that a graduate's view of theory has an important bearing on whether he or she will develop praxis. Evaluating the potential of program curricula for developing praxis was complicated by an apparent tension between competing goals, as well as the appearance

of an unwritten curriculum.

Clinical Practices: The Mentor's Impact on Praxis

DTR's clinical supervision is provided by three categories of teacher educator, each with different responsibilities: 1) field managers, 2) site coordinators, and 3) mentor teachers. The clinical work of field managers has been described above. The researcher suspected that due to time constraints, field managers are unlikely to have a great impact on the development of praxis in residents. Because site coordinators were involved in the supervision of only a few of the residents participating in the study, and because no site coordinators participated in the study, the site coordinator role in the program was not examined. This exploration of clinical practices focused instead on mentor teachers, who bear the primary responsibility for clinical supervision.

As noted above, developing praxis in residents is not a goal of this program. However, when the concept was explained, and examples offered, study participants made reference to habits of thinking that are closely associated with praxis. When asked for examples, residents offered a range of skills and dispositions that reflect DTR program emphases. "I feel like what you're talking about is being flexible, and we talk about that a lot. Like we talk about using data" (R11). Some residents explained that they were repeatedly urged to discover what would work in their own classrooms. Some seemed to interpret this is a process of trial and error, or "trial by fire," as one resident put it (R16). Residents were encouraged to change course if a lesson wasn't working. As a resident explained, if she knew she was losing her students, she would just say, "You know what guys, I'm really sorry. This isn't working. I apologize. Let's find something different" (R6).

The terms *adapting* and *reflecting* were used repeatedly, and many participants echoed the sense that these skills were "a very large component" of the program (R3). Some residents interpreted the research term *adaptive expertise* as just being adaptive, and cited examples of modifying a technique to their teaching context. Residents associated this with being vigilant, being self-critical, and using data. "That's a huge thing that we've talked about . . . checks for understanding, progress, in the moment . . . using data, and then how to adapt" (R15).

One comment from a resident was especially interesting: "They [instructors] always told us to think outside the box and to try different things . . . However, they never explicitly connected those skills for us, at least not for me" (R6). This raises the question of whether or not praxis can effectively be taught in the setting of a university classroom. At the university, residents were *told*, and encouraged be reflective, adaptive, thoughtful, etc. Some residents reported seeing adjuncts model this. But in the best of mentor classrooms, they were *shown* how. Indeed, several residents emphasized that they were gaining expertise in the classroom, not at the university. "I would say that's something I have definitely learned from the residency . . . I definitely think I've learned that . . . through mentors (R10). One resident put it thusly: "It was never discussed [in classrooms] at DU, but constantly in the classroom with my mentor" (R12). Another explained that she was developing expertise in "the mentorship, definitely. You're becoming an expert of your own craft. How do I reflect, and how do I try to constantly be better?" (R15).

In one interview, the researcher explained the term *adaptive expertise* by referencing Captain Sullenberger's famous emergency landing an aircraft on the Hudson

River. After considering this, one resident offered a rather eloquent description of a teacher's adaptive expertise as "reading what nobody's telling you" (R13). The researcher asked her to elaborate:

> I think my mentor has been a great model of that. Just how you have no idea until that day. And that's every day as a teacher. You have to be completely . . . you may think [you have a great plan], but you realize that your students don't have the background knowledge for this lesson. So then you have to adapt . . . I think that's been a huge, huge emphasis in the program. Take what we're giving you, and find a way to use it. And we're not going to be able to tell you how to do that, because it's going to look different for all of you. (R13)

Although the quality of mentoring was found to vary drastically, the best mentors helped novices develop the capacity for praxis, and strong mentoring may be the most important contributor to the development of a resident's praxis. In addition to daily observing their mentors teach, residents developed praxis through dialogue. "That is when we debunked. Sometimes it was just, Why did that go so wrong? Why aren't they using commas? How can we teach this in another way?" (R13). One mentor was apparently able to unpack her teacher thinking by inviting the resident into the inquiry, and by soliciting the resident's questions and thoughts. "She would talk out loud . . . She would say, 'I'm going to do this or that because.' But she would always ask, 'What do you think?' (R13). In the follow up interview, the researcher asked, Was your mentor able to reveal her wisdom? "Oh yeah." This resident clarified, saying that when she saw a teacher move, she would later ask, "What told you?" (R13). This is an interesting question for a novice to ask. It was not, How do I *do* x? But rather, how do I *know* when

to do x? The researcher posits that this is an indicator of praxis. Asked if she thought the program was helping her to develop adaptive expertise, this resident replied, "I think so. My mentor and I talked about this very explicitly." We talked about, How do you know when it's not working, when kids aren't getting it?" (R13). This particular partnership arguably exemplified the best mentoring practices, as well as deep learning on the part of a resident. Interviews with this pair strongly suggest that the mentor helped this resident to develop a capacity for praxis. It is unlikely, however, that all mentors were equally effective in this regard.

In conclusion to this section, it appears that some residents developed a capacity for praxis through effective mentorship, and especially through a particular kind of dialogue. Many of the program emphases, such as reflection, the use of data, and formative assessment are compatible with praxis.

Learning experiences

The second factor suspected to contribute to praxis was learning experiences, which refer to activities residents were required to do outside the university classroom (aside from reading, writing, and research). Although study participants reported many instances of individual, informal, and even transformational learning, in this context, *learning experiences* were defined as formal activities assigned and evaluated by instructors. They include the Lead Teach (solo teaching of 2-3 weeks, done in the fall and spring), teaching rotations, and learning rotations. All of these activities entailed either practice or direct observation of teaching. Study participants repeatedly cited these experiences as momentous. In fact, when asked to talk about examples of their most significant learning, residents rarely mentioned anything besides these apprentice-like

opportunities to learn the craft. In explaining their value, residents frequently mentioned putting theory into practice, or adapting a theory to their particular teaching context. "I take a lot of what we're learning at DU and apply it to the host school. But if I didn't have the host school and my mentor, and all of the observations that they provide for you, then this [university course work] wouldn't really mean as much" (R6).

According to participants, the Lead Teach was among the most important learning activities in the program. This solo teaching experience lasted for two to three weeks, and occurred in the fall and spring. Study participants attached great importance to lead teaching, and seemed to view it as a rite of passage. Indeed, the first Lead Teach was sometimes an occasion for poorly performing residents to exit the program. As one of the field managers explained, the Lead Teach could be an epiphany, if it revealed "they can't hold all the plates" (FM6). Residents perceived doing well as confirmation that they were making good progress. Another field manager identified the lead teach as "the cornerstone assignment for seminar" (FM2).

Learning rotations were opportunities for residents to observe experienced teachers. The assignment included a structured protocol for the observation with explicit references to LEAP indicators. Residents cited the learning rotations as very educational:

> In terms of what the program has provided . . . being able to observe other teachers, going to other schools, going to other classrooms, that has given me a wealth of knowledge . . . I think it's fantastic . . . The teaching rotation was phenomenal. I loved that. (R8)

One explained that, "learning rotations were helpful and I wish we could have done more of them . . . even seeing another classroom was great" (R10). Another

resident stated, “learning rotations and teaching rotations were invaluable . . . I learned a lot” (R6). Another resident felt the observations and learning rotations were so important that they should have been added as a second axis to the continuum this researcher used to investigate the locus question. Teaching rotations provided an opportunity for residents to practice in another classroom, perhaps with students of a different grade level. One resident explained that teaching students in another grade level helped him appreciate the developmental continuum of elementary students. “The other thing I wanted to see was the independence. When they come into KG they’re not independent at all” (R8).

After data collection was completed, the researcher realized that sufficient data to support any conclusions about these learning activities had not been gathered. While residents clearly valued these school-based learning activities, and reported learning from them, it is not clear, exactly what residents had learned, except that this learning revolved around classroom practice (this topic likely warrants another study). However, it is unknown whether residents developed a capacity for praxis from these experiences. It may be this learning had more to do with basic classroom competence.

Curriculum

Curriculum was the third component suspected to contribute to the development of praxis. This was the most difficult facet of the praxis question to investigate. One problem was that the investigator began data collection with a limited definition of curriculum (the subjects, topics, and texts comprising courses), which quickly proved inadequate. Early interviews with residents surfaced two issues germane to the praxis question: 1) the manner in which theory was presented in courses, and 2) the actual goals of curricula. Although these unexpected issues complicated this research, data analysis

led to the conclusion that DTR curricula develop the capacity for praxis to a limited extent only. In this section, the curriculum for the program will be described. The core course, seminar will be described. The manner in which theory is presented generally will then be explored. Finally, the program's goals for curriculum will be examined.

Coursework overview.

The Denver Teacher Residency offers a M.A. degree in several specialties, including Elementary, Special Education, Secondary Mathematics, and Secondary Science. The program takes an entire year, and includes a summer session before the actual residency. The seminar course meets every quarter, and provides a common ground for the university side of the program. This class is taught by the field managers, and is the one course where all students in the cohort of 75 meet. The summer quarter includes an off campus overnight retreat designed to promote relationships between residents and instructors, as well as among residents. In the summer session, seminar is devoted to urban education issues, and plays an important role in helping residents understand the mission of the program. In this course, students are challenged to consider the importance of race, class, socioeconomic status, and privilege, as well as their assumptions about urban education. Taken together, the five courses of the summer quarter were described by participants as being more theoretical than later courses. In general, the program's curriculum resembles that of typical preparation programs, and courses address education foundation topics in sociology and educational psychology. Several courses address Special Education, Second Language Acquisition, Literacy, and Culturally Responsive Practices. Additional courses address content methods and instruction, effective classroom management, curriculum, and assessment.

In reviewing documents available on the DTR Hub (a SharePoint site for the program) the researcher encountered topics and texts that are likely familiar to many teacher educators, for example, Webb's Depth of Knowledge, essential questions, National School Reform protocols, *Understanding by Design, Classroom Instruction that Works,* and *Teach Like a Champion.* What distinguishes the curriculum overall is an emphasis on urban education, the social justice mission of closing the achievement gap, and local district reform initiatives. An example of an emphasis on local reform efforts is the district's evaluation framework, LEAP, which was discussed at length above. LEAP indicators are written into the syllabus for seminar. Although it was not possible to observe all 18 courses, the researcher did observe both the seminar and non-seminar classes. Because of its centrality to the program, the researcher focused special attention on the seminar.

Seminar.

The objectives for seminar are stated in the course syllabus:

Upon successful completion of this course, teacher candidates will be able to:

* Understand and demonstrate effective classroom management practices as aligned to the LEAP framework
* Collect and analyze student performance data to drive instruction
* Set measurable standards based goals for student achievement
* Integrate classroom experiences with the study of theory to inform their daily practice

One of the central assignments, the "Theory into Practice Paper," is well designed to help residents integrate theory and practice. It resembles a practitioner research project, and includes scholarly research. The assignment reflects a thoughtful understanding of how novices best apprehend and apply theory. Rather than presenting a priori theory to students, the process begins with the resident identifying a "problem of [their own]

practice," which is tied to the LEAP framework. The resident becomes an investigator, collects data, conducts scholarly research, and then designs a plan to address the problem.

One of the residents described his research on the challenge of managing transitions between learning stations. The researcher asked, Did this project give you a model that you might use in the future? "Yeah. I think it's important to think of whatever your problem is in that sense . . . like a scientist" (R9). Another resident described the project as "all tied up in practice . . . What's the problem? What's the practice to improve?" (R16). This resident also focused on a student behavior issue:

> I looked at what I was doing to encourage him [an attention seeking student] to raise his hand, or to not be distracting. And then I observed another teacher to see if he had been a problem in their classes. Then I researched in a book how to do that. And then I looked at our school's approach to his behavior" (R16).

Although this assignment looked promising, at the time interviews were done in the late spring, many had trouble recalling their projects, which they had completed months earlier. Those who did remember did not express excessive enthusiasm for the assignment. "It's like even the theory to practice paper. It was interesting and good. But did I get that much out of it? Maybe" (R16).

How theory is presented.

An important aspect of any teacher education program is the manner in which theory is presented. As explained in Chapter 2, some of the problems identified with traditional programs stem from how theory is presented, and how theoretical knowledge is connected (or not) to classroom practices. Residency programs are ostensibly well designed to help novices integrate theory and practice. The schedule and structure of the

Denver Teacher Residency seem to be ideal for allowing residents to experiment with theoretical models they learn about. Potentially, theories discussed in university classrooms on a Thursday could be applied, considered, and adapted back in the host classroom the following day or week.

Although the Manager of Program and Curriculum described the program as based on a "theory into practice model," and "integrating classroom experiences with the study of theory to inform their daily practice" is one of the seminar's stated objectives, early data analysis suggested that residents' learning of theory is uneven. Because this issue is so important for understanding the praxis question, the researcher pursued it in later cycles of data collection and analysis.

It may not surprise the reader that faculty members talk about the value of theory differently than do their students. DTR instructors generally spoke about theoretical knowledge as an essential foundation or "framework" for effective teaching. Residents, on the other hand, typically discussed the challenges of learning and (especially) applying theory. During data analysis these kinds of issues were organized into themes (e.g., integrating theory, application of theory, exposure to theory, the fit between theory and teaching specialty, and front loading theory), which will now be explored.

When asked to talk about how theory was presented in coursework, participants often spoke about the efforts of instructors to present theory helpfully. "I think they're tried really hard to give us hard applications of the theory they've given us . . . every step of the way. And a lot of that has been through . . . anecdotal wisdom" (R12). This interviewee cited Dewey and Vygotsky as education thinkers whose names were mentioned. She noted that no first hand sources had been assigned, and that she often did

further research on her own.

When asked, To what extent had the seminar met its goal of integrating theory and practice, residents' answers seemed to reveal a pattern:

> I guess it depends. In the case of the class [that this researcher had just observed], that class has been all theory. And I have not been able to bring any of that theory back here, because I have no context for it . . . I feel like I've been thrown a big book of just theory and I have no context to place that in . . . no real life examples that have been told to me. So I can't bring that back into practice. (R6)

Asked if this comment referred primarily to this one class, or others in general, the resident replied, "There have been other classes where the theory came in handy and I've tried to adapt that to [my classroom]" (R6).

Residents seemed to be aware that that their instructors were trying to present theory carefully, if sometimes unsuccessfully. "A fault they've had with . . . the seminar class at least, is for the most part, we haven't been able . . . I think there's been a disconnect between our experience at the schools. And I think what they're trying to do is that [connect]" (R16). One resident added that she thought the program was trying to "get a little heavier on the theory" (R15). The Manager of Program and Curriculum corroborated this perception, and discussed her conversations with adjunct instructors about the need to retain theoretical texts in course syllabi. However, many residents reported that they valued the practical over the theoretical. "The things I found the most valuable . . . [were] the very practical strategies . . . it was much better when they would say, here's this strategy, that's obviously based in theory. Go test it out" (R15).

Study participants used interesting phrases in these discussions, like *exposure to*

theory. "Exposure to theory was important . . . straight up exposure" (R3). Another resident said, "I think they throw a lot at us in the beginning . . . and it's like I don't even know what this is saying. I have nothing to tie this to" (R10). The impression that took shape from several interviews was that instructors were presenting theory, sometimes in a cursory fashion, and then leaving it up to residents to make sense of it on their own. In follow up interviews, participants were asked, Is the basic approach to teaching theory, 'Throw a lot at the wall and see what sticks'? Several residents answered in the affirmative. "Yeah. They do that a lot" (R9). The researcher found it interesting that this approach may actually be effective for some learners. "I think their style is throw and throw and throw. And then by the end of the year, hopefully enough has stuck. It did . . . It worked. I took ten things that were thrown at the wall" (R3).

Fit between a resident's specialty and theory presented.

A complicating factor results from the fact that students are sometimes grouped together in classes (e.g., seminar), irrespective of teaching specialty. Secondary math and science teachers, who made up a minority in the cohort of 75, experienced this as problematic. "Sometimes I thought they were a little more geared towards elementary school" (R16). This meant that theories or techniques were presented with the expectation that the residents (who could be teachers of KG/ELA or high school science) would adapt them to their grade level or content area. As a resident explained, "It as been a little tricky during the year . . . applying some of the ideas that we've learned about. Because there's a lot of digging you have to do" (R12). Other participants echoed this concern. "We've been searching for more concrete examples that we can use" (R8). This resident voiced a common complaint that residents were given a tool or technique,

and told to just modify it to their setting. “But we haven’t been able, we don’t have the experience . . . to translate that activity to make it work for us” (R8).

The researcher was somewhat surprised to hear residents report that they “wished the university had been more theoretical” (R16). A resident explained, “I think that’s something we’re kind of lacking . . . you don’t get that pure theory from that academic [perspective]” (R9). Another resident was more specific. “I wanted child psychology. I have a science background. I thought there would be more science to teaching . . . like this is how kids develop number sense” (R13). Yet another resident put it this way:

> I wish I knew more about how children actually learn . . . [course work] never goes that much in depth . . . I expected psychology or a more scientific perspective. There was a lot of educational theory, which is helpful . . . maybe a remedy to that would be more choices (R16).

Some residents suggested that more theoretical reading would have been valuable, but they were not sure how any more work could be squeezed into the program. One interesting remark captured this:

> One thing I will say . . . there is so much stuff on your plate . . . if anything gets x-ed, it’s your reading, which is usually theory . . . if it’s one thing that got dropped, or one thing I didn’t pay a lot of attention to, it’s readings in theory . . . but that’s actually one thing I’m looking forward to this summer . . . actually reading some of the books that I’ve bought. (R10)

Another comment the researcher heard often was that the first quarter courses were much more theoretical. “Like I said, in June and July [it] is all theory . . . It is so theory driven” (R10). Theory was front loaded in the program’s curriculum. And by

many accounts, theory took a back seat as the year went on. “And then once you get to your placement site, they get away from that” (R10).

Despite these concerns, some remarks indicated that residents benefitted from learning theory, eventually. As one explained, “when you’re first exposed to theory, it doesn’t make sense. You’ve gotta study it for it to really sink in” (R3). Another cited the example of learning about a child’s perception of volume and cognitive development, as being very important. Like some others, this resident expressed the desire to circle back and read further at some point.

In interviews with seminar instructors, it became clear that they have not assessed the seminar goal of bridging theory and practice. Asked to address this goal, a seminar instructor quietly responded, “I hope so. I don’t know. We try” (FM6). Another instructor was cautiously optimistic, suggesting that the objective might be met **“**with some residents . . . Some don’t make a strong connection” (FM4). Asked, How is theory presented? Do you have to make the case that it matters? Another instructor explained, “It’s hard. I want them to see connections. I think it’s so important” (FM4).

In conclusion to this discussion of curriculum and its impact on the development of praxis, data analysis indicates that the program curriculum, as currently organized and delivered, develops praxis to a limited extent only. In isolated cases, residents reported being able to apply theory in their classroom teaching. For the most part, residents seemed to find learning theory burdensome, unhelpful, or both. Factors that may explain this were explored.

Investigating the program’s approach to teaching theory was complicated when data analysis identified competing (or perhaps coexisting goals) in the program’s

curriculum: on the one hand, an academically rigorous, theoretically robust, graduate level education, and on the other hand, basic classroom competency. The latter goal is arguably dominant. As a resident explained, "the focus was really, 'you need to learn how to do this [teach]. If you want to dig into that theory you can'" (R13).

This issue appeared to be somewhat charged, especially for faculty members, for whom it seemed important to represent the program as academically rigorous. One field manager talked about this issue at length, explaining that she felt the rigor of the program resulted not from coursework, but rather from the simultaneous demands of student teaching in an urban school and graduate work. "People get upset if you say it's not rigorous," she added (FM6). Actually, many residents said just that. "This is not the program" for rigorous graduate work (R3). Many residents seemed to agree that course work had not been "academically rigorous . . . it has been time consuming, and informational" (R13). This response corroborates what is perhaps the single most interesting response from a resident on this topic. "We're not in a masters program to learn about teaching. We're in a program to learn how to teach in the quickest way possible" (R13).

In conclusion, an explicit goal for the most important course (seminar) was bringing theory to bear on practice, which is foundational to praxis. But the extent to which this goal was achieved is modest. One of the seminar's anchor assignments, The Theory to Practice paper, was well designed to help residents integrate theory and practice. However, residents' discussion of this project would not support any definitive conclusions about its impact on praxis.

Praxis Conclusion

The second research question asked, *In what ways do clinical practices, learning experiences, and curricula develop the capacity for praxis in residents?* This exploration of praxis examined clinical practices, learning experiences and curriculum. Inquiry into clinical practices focused on mentoring, and effective mentoring was determined to have the greatest potential to develop praxis. However, the ability of individual mentors to develop praxis in residents varied significantly. Although residents greatly valued the classroom-based learning experiences, insufficient data was collected to support any conclusions about the impact of these experiences on the development of praxis. Curriculum was the most difficult facet of this research question to investigate. Because of its centrality to the program, the researcher investigated the seminar, as well as how theory was presented in courses generally. Assessing the curriculum's potential to develop praxis was complicated by an apparent tension between competing goals for curriculum. The real priority of the program may have been captured in the Manager of Program and Curriculum's response to the question, Is it a goal of the program to develop expertise, or for graduates to become master teachers? The response was unequivocal. "Yes. As long as what it also equals is student achievement." In summary, DTR curricula do not appear to develop praxis; DTR learning experiences more likely develop basic classroom competence; effective mentoring does develop praxis in residents, but not all residents had effective mentors.

Conclusion: Locus and Praxis

The results presented in this chapter affirm a point that many education researchers will appreciate, specifically that teacher education programs are complex and

involve a dynamic network of institutions, individuals, and ideas. Data collected for this case study also reflect the "immense complexity of human nature and the elusive and intangible quality of social phenomena" (Cohen et al., 2011, p. 7). In some cases, this study's data was insufficient as a basis for any definitive conclusions. In other cases, conclusions had to be qualified by mitigating factors. A more detailed discussion of these results will be presented in the next chapter.

Chapter 5

Discussion of Results

To assist the reader, this final chapter briefly restates the research problem, the methodology of the study, and the results. Discussion of the results will then be organized under the headings: Researcher's Insights, Relationship of the Current Study to Prior Research, Theoretical Implications of the Study, Unanticipated Findings, Implications for Practice, and Recommendations for Future Research.

Statement of the Problem

Providing a highly effective teacher in every classroom, and an excellent education for every child is a social justice obligation (Cochran-Smith, 2004). Reforming urban education is a "moral and economic imperative" ("Paul Grogan on Crisis in Urban Education," 2014). The Urban Teacher Residency is a model to recruit, educate, and retain a highly qualified urban teacher corps. It is "designed to embody best practices in recruitment, screening, preparation, placement, induction and teacher leadership for urban school districts" (Gatlin, 2009, p. 470). The UTR is arguably a pocket of vitality (Berry et al., 2008; Gatlin, 2009). Currently, over 400 residents are participating in UTR programs in 20 American cities. Early evidence from the first programs established in Boston and Chicago suggests that they are meeting an important objective of combating attrition: the reported retention rates were "90% and 95% at BTR [Boston Teacher Residency] and AUSL [Academy for Urban School Leadership in Chicago], respectively, after 3 years" (Gatlin, 2009, p. 473).

In addition to retention, recent data from Colorado suggests that the Denver Teacher Residency program is producing more effective teachers than other programs.

The Denver Public Schools 2013/2014 district assessment of all first year teachers, based on the district's teacher evaluation framework, Leading Effective Academic Progress LEAP), revealed that "DTR first year teachers outperformed all other first year teachers on every single indicator of LEAP" (Manager of Program and Curriculum [MPC]).

Review of the Methodology

As explained in Chapter 2, the purpose of this qualitative investigation was to explore the concepts of locus and praxis, as they pertain to teacher education practices and novice teacher learning in the Denver Teacher Residency. An analytical case study investigated two research questions: *1) In what ways is teacher learning deliberately situated in the clinical setting of a K-12 classroom? 2) In what ways do clinical practices, learning experiences, and curricula develop the capacity for praxis in residents?* Two terms essential to the study were fully explained in Chapter 2. The term *locus* was meant to suggest a nuanced and comprehensive way to consider the K-12 school and classroom as *the* essential location for learning to teach. The term *praxis* was associated with the more common notions of adaptive expertise, practical reasoning, problem solving, and wisdom informed by theory *in* practice. In general, praxis means "informed, committed action" (Smith, 2011). A participant in the study aptly described praxis as "reading what nobody's telling you." In the context of teacher education, praxis has moral, intellectual, and dispositional implications.

The research design for the study was emergent (Cohen et al., 2011; Creswell, 2013; Glatthorn & Joyner, 2005; Lincoln & Guba, 1985), and included extensive fieldwork and interim analysis (Creswell, 2013). Data collection included nearly 30 semi-structured interviews with, and multiple observations of program participants, as well as

document analysis (course syllabi, assignment descriptions, assigned readings). Data was collected over the course of 20 nonconsecutive days, at numerous program sites, for a period of two months. Recursive interim data analysis entailed thick description of the case, identifying themes, and developing interpretations and assertions (Creswell, 2013).

Summary of the Results

In what ways is teacher learning deliberately situated in the clinical setting of a K-12 classroom?

It was determined that teacher learning is deliberately situated in the clinical setting of a K-12 classroom by virtue of the basic design of this residency program, which affords significant opportunities for learning to teach in a classroom, and by embracing the local district's evaluation framework. While the practice of recruiting adjunct instructors from the district is interesting, their operative teacher education pedagogy and instructional paradigm largely undermine the potential of this arrangement to situate learning in the clinical setting.

In what ways do clinical practices, learning experiences, and curricula develop the capacity for praxis in residents?

The investigation focused on three factors suspected to contribute to the development of praxis: clinical practices, learning experiences, and curricula. Exploration of clinical practices focused on mentoring, and effective mentoring was found to have the greatest impact on development of praxis in residents. Unfortunately, mentors' abilities to nurture their residents' capacities for praxis varied substantially. One resident described deep and continuous learning with the mentor, while another reported that at "a certain point, probably after a couple weeks, I just stopped learning from him" (R16).

While residents valued school-based learning activities, and reported learning from them (especially the Lead Teach), it was not possible to form a conclusion as to whether residents developed a capacity for praxis as a result these experiences. The researcher suspects that these apprentice experiences are very effective in developing the residents' basic classroom competency.

Curriculum was the third component suspected to contribute to the development of praxis. This was a challenge to investigate. The researcher began the investigation with a too narrow definition of curriculum (the subjects, topics, and texts comprising courses), which quickly proved deficient. A more helpful, and more interesting definition would open the door to questions like, "What beliefs, values, or attitudes are learned from the way classrooms are? [and] . . . what lessons are taught but not planned, acquired, but taken for granted" (Flinders & Thornton, 2009, p. 1). Data analysis was further complicated by questions about the actual goal of curricula. Two goals were found to co-exist uneasily: a) to deliver a rigorous, academic, graduate level teacher education, and b) to produce an effective urban teacher with basic classroom competence, able to produce measurable student achievement. Data analysis surfaced another theme within curricula, which the researcher would characterize as DTR's *unhidden* curriculum. This unwritten curriculum expresses values about social justice, closing the achievement gap, and becoming an agent of change. The question, What is the "Kool-Aid? will be addressed under the heading of Unanticipated Findings below.

Researcher's Insights

Having spent considerable time investigating the Denver Teacher Residency, this researcher was struck by the culture of learning that seems to characterize this program.

The Manager of Program and Curriculum (the researcher's gatekeeper) was extremely cooperative, and welcomed the researcher. No kind of access that the researcher requested was ever denied. Likewise, instructors were open to observation of classes, and willing to discuss all the strengths and weakness of the program. In fact, one instructor solicited the researcher's feedback after the observation of a course. This disposition permeates the program, and the faculty provides a model of reflective practice (Schon, 1983), and critically reflective teaching (Brookfield, 1995). This reflects a positive culture of a learning that was likely established, and is now maintained by DTR leadership.

The residents also make an impression. As one resident put it, "It's an intense bunch of people . . . used to being at the top, a lot of over achievers . . . ambitious" (R15). As a group they are energetic, articulate, thoughtful, and deeply committed to the mission of urban education. Because the descriptor, "type A personality" was so consistently used by study participants, the researcher would conclude that the admissions process screens for this characteristic. The verbal and intellectual abilities of those residents who participated in the study made conducting interviews somewhat easy.

In the summer of 2014, DTR faculty welcomed Cohort 6. With five years under its belt, the program stands at an interesting juncture; it is old enough that observers can expect results. Based on this investigation, the researcher would conclude that the program provides a clinically rich and thorough preparation for teaching in Denver public schools. This assertion is corroborated by the district's recent analysis of teacher evaluations, which revealed, "DTR first year teachers outperformed all other first year teachers on every single indicator of LEAP" (MPC). Although this is a much stronger

endorsement of a program than the principal surveys that are so often used to evaluate program graduates, it does not provide direct evidence of student achievement. It may be a challenge for the DTR to produce evidence that its graduates tip the balance of achievement as measured by standardized test scores.

Learning opportunities lost.

This case study permitted the researcher to examine the program from the inside out. The researcher discovered issues with courses, curriculum, and instruction that pertain to praxis and locus, and these were explained in Chapter 4. Some of these problems represent the unavoidable pitfalls that accompany any new program. However, interpretation of a persistent critique of courses by residents led the researcher to suspect that opportunities for academic learning were frequently lost. The researcher was surprised when several residents admitting fabricating data in order to complete what were perceived as poorly structured assignments, one of which a resident described as "a meaningless assignment on an imaginary student" (R6). "I've had to make up data or make up observations to make it fit what the assignment asked for," another resident confided (R8). These kinds of remarks were sufficiently frequent to suggest a pattern. "There were certainly assignments . . . I did them to do them . . . because they were required . . . not because they were meaningful" (R3). During one interview just before residents were about to meet for class, another resident confided, "Even right now, you know, I'm supposed to read two chapters and write a reflection. I'm not going to read two chapters and write a reflection. I don't get anything out of it" (R3). A mentor also commented on this problem, citing an example of an assignment having to do with college pathways, even though the students in question were in the third grade. "And the

kid was borderline autistic . . . this is not the most realistic of assignments" (M13). Another mentor, who was especially familiar with the program (as a DTR graduate), suggested that all the adjuncts should sit down and address the "overlap" problem. "It doesn't feel coherent. A lot of times you repeat assignments" (M15). A resident repeated this observation. "I think there are a couple of classes they could scrap because they're just a waste of time. I think they could be evaluating their assignments and making them applicable to what we're doing here in my room" (R10).

In addition to criticisms of specific assignments, some residents characterized coursework in general, as less than optimal:

> They have the best of intentions, but sometimes it felt like busy work. Like you have to spend so many hours at the university and do so many assignments, so they can give you these grades, so they can give you this masters. Whereas here, at your placement site, everything you're doing is timely and [related to] what you're going to be doing next year. (R10)

The term *busy work* came up more than once. "Sometimes it felt like busy work. Or it's work that we're not coming back to . . . not busywork like it's worthless, but it's just something to do" (R9). The frequency with which this issue arose in data suggests more than a minor problem. Analysis of this data clearly suggests that opportunities for academic learning were lost. Two speculative explanations are offered next.

The missing *problem of the day*.

Criticisms of assignments, and lost opportunities for learning may stem from a feature of the program's design. The cohort of 75 includes several grade level and content area specialties: Early Childhood, Elementary, English as a Second Language, Special

Education, Secondary Math, and Secondary Science. Even though students are sometimes grouped by teaching specialty, to a large extent the program attempts to meet the learning needs of residents by offering a kind of smorgasbord. When residents were learning about a method (for example) that was suited to their particular teaching context, they reported satisfaction. In many cases, however, specific methods were presented that didn't fit residents' individual teaching context. The instructors' repeated advice to translate, adjust, and modify became a source of annoyance for some. "I felt like it was hard to be told do this. And you're doing it, but it isn't working. You're told "prescribed" methods . . . but they don't work" (R9). While they understood that they would always need to modify a concept or technique to fit a particular situation, residents expressed frustration at having to do this so often.

The researcher found an insight for understanding this problem in the work of Lampert (2011). A mathematics teacher educator and a consultant for the Boston Teacher Residency, this author contrasts the teaching of math in a K-12 setting to clinical teacher education. She notes the value of a common "problem of the day" when teaching K-12 math. In teacher education, however, no two student teachers have a common problem on any given day; each experiences different teaching challenges. So a teacher educator cannot focus instruction around a problem of the day. In the case of a program like the DTR, where students represent as many as seven different teaching specialties, and grade levels ranging from KG to high school, the absence of common problems may well result in missed opportunities for learning.

Vestiges of a university based preparation.

In addition to the explanation described above, opportunities for learning may be lost due to unhelpful vestiges of a traditional university-based preparation. These could be characterized as dispositions toward students, and include a sometimes condescending view of learners, the related belief that preparation needs to change candidates, and the habit of ignoring candidates' prior knowledge and experience (Korthagen, 2001; Hagger & McIntyre, 2006). The Manager of Program and Curriculum was aware of some of these issues. "Unfortunately," she explained, "the attitude that was put forward was 'you're the child and I'm the teacher,' and I heard that in the evaluations that came back on the field managers" (MPC).

A vestige of traditional preparation programs is the notion that preparation should change teachers, which is often accompanied by the assumption that preconceptions a novice carries into a program are likely harmful. "It's kind of this mindset. You're coming in, and let's pretend you don't know" (FM6). This perspective may explain why a licensed teacher is ineligible for admission. "We've got to overcome some of those bad habits that they develop, thought processes" (FM6). The problematic message residents seemed to hear was that they should forget about prior experience and "wipe the slate clean . . . you don't know anything about this" (MPC).

In addition to what appears to be a somewhat negative view of residents' thinking, the DTR faculty does not help residents identify potentially helpful prior beliefs and experiences. Asked, Do you make an effort to identify those skills that might be transferable and help them teach well? The Manager of Program and Curriculum responded, "I don't think we're very good at doing that." In exploring the issue of praxis with residents, the researcher was intrigued by the range of prior work experience

residents described, and their acquisition of skills of enormous value for effective teaching (e.g., problem solving, critical thinking, thinking out of the box, and 'reading' a situation). This experience came in interesting forms, and from such diverse fields as science, athletics, music, and even equestrian training.

Two of the residents had experience as research scientists. Both spoke about the need to solve problems. If a lab experiment or field procedure wasn't going well, it was incumbent on the scientist to "figure it out." Another resident talked about her experience as a college athlete, and how this taught her to adapt her play in the heat of a game. Another interesting example came from a musician, who described becoming a critical thinker in a conservatory, through "analyzing and annotating classical and jazz scores . . . and try[ing] to find hidden patterns in it. So I think that's sort of [how I learned]" (R6).

One resident eloquently explained the value of her lifelong work with horses. "That has been one of the most valuable . . . because you have no idea how things are going to go, or how they're going to react. Ok, you're scared of grass. So what can we do? If they won't walk straight, we'll walk in circles" (R13). The researcher asked if this was akin to differentiating instruction. "You totally do. I use that all the time with students in the school . . . and that instinctual . . . reading what nobody's telling you . . . kids can't articulate what they're thinking or feeling" (R13).

The interesting variety of these examples of prior experience, and the skills they nurtured, suggests at least two conclusions. First, these novices arrived with a capacity for praxis. Residents' learning might be advanced by helping them to identify and translate into practice the considerable skills they bring to teaching, many of which, like "reading what nobody's telling you," suggest praxis. Second, while candidates obviously

arrive with unhelpful preconceptions about teaching and learning, they also arrive with helpful ones. Inviting novices to unpack these preconceptions — to claim the helpful and discard the unhelpful — could enhance novice teacher learning.

Relationship of Current Study to Prior Research

In chapter 2, the historical, theoretical, and empirical foundations for the current study were established. This study connects to the extensive scholarship devoted to understanding the UTR's predecessor, the Professional Development School (PDS). As a new model of teacher preparation, the UTR mandates a significant change in the role of the university, and makes no effort to reform higher education. Like the PDS, DTR does embrace the mission of changing K-12 schools. What kind of systemic impact the program will have on Denver public schools, or the educational outcomes of its (nearly) 90,000 students remains to be seen. Fullan et al. (1998) concluded that, "PDSs were on their own an insufficient strategy for changing two such complex social institutions" (p. 32). Perhaps the DTR will prove capable of changing one complex institution. Future research might investigate the extent to which DTR is changing host schools with the strongest presence of DTR alumni on faculty.

A primary goal of the PDS was creating a bridge between K-12 schools and universities. Although the UTR model ignores this goal, the "asymmetry" (Hagger & McIntyre, 2006) between K-12 and higher education helps to explain some of the problems with DTR courses that were discovered in this study (it may also explain the challenge of effective mentor professional development). Universities are designed for educating adults; "schools, in contrast, generally seem to have been designed with no thought to their suitability for the continuing professional education of the adults who

work in them" (Hagger & McIntyre, 2006, p. 65). Results of this study suggest that this asymmetry impacts residents' learning negatively.

The current study draws from a body of research into the nature of teacher learning. This study connects to theories of social cognition (Bandura, 1986; Vygotsky, 1978), situated learning (Lave & Wenger, 1991), and community of practice (Wenger, 1998). Analysis of data collected in this study suggests that most residents' greatest learning took place in the host classroom, and that they learned most effectively "from participating in the culture of teaching [and] by working with the *materials and tools of teaching practice*" (Darling-Hammond & Bransford, 2005, p. 405).

A theory that receives great attention, and which was included in the literature review in Chapter 2, was Lortie's (1975) apprenticeship of observation. This researcher did not investigate the issue, but neither did it arise in any of the numerous interviews or observations. The researcher is somewhat surprised by this, and wonders if the theory actually has the explanatory power with which it is so often credited.

The current study drew heavily on research exploring the teaching of theory in preparation programs. Results of this study suggest that the perceived dichotomy between theory and practice is consequential. Despite the potential of a clinical program to do so, and despite this program's efforts to do so, bridging the gap between practice and theory remains an elusive goal. The researcher was surprised to hear the Manager of Program and Curriculum explain that the program was based on a "theory into practice" model, since this is the traditional concept of theory that a residential or school-based teacher education (Hagger &McIntyre, 2006) should replace. Literature presented in Chapter 2 suggested that the premise of traditional pre-service teacher education, that teachers

"should first understand about good teaching, and should then put that understanding into practice," is ill conceived (Hagger & McIntyre, 2006, p. 10).

Results of this study, which examined problems in the way theory was presented, and which identified lost opportunities for learning, seem to corroborate the scholarship of Korthagen (2001; Korthagen & Kessels, 1999; Lunenberg & Korthagen, 2009), who argued that theory should not (and perhaps cannot) be understood in isolation from practice, and that preparation should develop the perceptual capacity of novices.

Theoretical Implications of This Study

The most important question regarding any implications of this study is whether or not the concepts of locus and praxis are actually useful. One problem with using new, unfamiliar, and/or academic terms is translating them for study participants. The problem of explaining praxis was already mentioned. Initially, interviewees equated the term with merely being adaptive. On the other hand, the example of pilot landing on a river seemed to work, prompting an interesting description of teaching praxis as "reading what nobody's telling you" (R13). The unfamiliar term *locus* may have also been problematic for interview purposes. While these terms served as useful lenses for this study, they are unlikely to be helpful to program developers or administrators. However, these terms may have helped this researcher to identify flaws in the program, as well as potential solutions, which will be addressed below, under the heading of Implications for Practice.

Unanticipated Findings

The investigation delivered a number of unanticipated discoveries: the enrollment effect, the importance of the context of the DTR, the unhidden curriculum, and perhaps most important, the significance of cohort learning.

Enrollment effect.

The first unanticipated finding has to do with the program's rigorous application process. Each year approximately 1,000 candidates initiate the admissions process. That group is winnowed down to 400 individuals, who participate in "Demonstration Day." This includes interviews, a teaching demonstration, and a structured interaction with other applicants. After this step, approximately 80 are admitted. The program is selective in admitting fewer than 10% of applicants. Participants proudly spoke of making it into the program, and according to the Manager of Program and Curriculum, alumni are developing a reputation that makes them attractive to principals.

Though beyond the scope of this study, this researcher suspects the enrollment influence may be significant. It has a bearing on this study, especially with regard to the praxis question. Because most of the residents who participated in this study entered the program having acquired a variety of praxis-like dispositions and skills, the researcher suspects that screening parameters favor such applicants. So, determining the extent to which the program develops these skills and dispositions is difficult.

Screening also appears to select for the moral and ethical values that are foundational to praxis. One resident described this as "never being content, always continue to read literature . . . and [ask yourself] What else can I do? What else can I try?" (R10). When asked about the moral and ethical aspect of her work, another resident responded, "How else are we going to improve things? You're absolutely setting the foundation for our communities" (R13).

Context.

The second unanticipated finding pertains to the geographic, political, social, and economic contexts of this program. Denver is arguably an attractive city for young professionals. This probably helps to account for a strong applicant pool. Metropolitan Denver is enjoying an economic resurgence, driven by resource extraction in western Colorado. The political environment of Denver seems favorable to establishing a new teacher preparation program. DTR enjoys the support of U.S. Senator Michael Bennet, who happens to be a former DPS superintendent. The current superintendent also strongly supports DTR, and recently backed its expansion in the form of an undergraduate residency program. Perhaps most important of all, the program was funded by a multimillion dollar grant from the Janus Corporation, whose headquarters are in Denver.

In addition to these assets, Denver faces a set of daunting public school challenges. Reforming schools is an urgent priority captured in the district's ambitious "Denver Plan 2020." The district's 185 schools serve some 87,000 students ("Facts and Figures," 2014). In the 2013/2014 school year, the Free/ Reduced Lunch rate was 72%: English language learners constituted 35% of the district's students; the graduation rate was 58.8% ("Facts and Figures," 2014). Denver is experiencing significant population growth, as well as immigration. Between 1993 and 2003, Colorado saw an increase of 200% in the number of students of limited English proficiency (Echevarria, Vogt, & Short, 2008). Staffing Denver schools appears to be a major challenge, and according to

a study participant, DPS hired 900 teachers for the 2014/2015 school year (FM5).

Behind this current context is an interesting history, including a federally mandated busing plan that was terminated in 1995, after 22 years. While a detailed history of public education in Denver is beyond the scope of the study, the issues of white flight, de facto segregation, and the socio-economic disparities between downtown Denver schools and more affluent surrounding districts seem to energize urban school reform. DPS officials seem to appreciate reform of teacher preparation as essential to solving these problems.

Unhidden curriculum: the Kool-Aid.

The third unanticipated finding revolves around what the researcher considers an unhidden curriculum, and what study participants described as the DTR "Kool-Aid." This term came up in courses that were observed, as well as in numerous interviews. Faculty members who interviewed for the study sometimes appeared slightly uncomfortable with this topic. Residents did not. Although study participants ascribed slightly different meanings to the term, an interpretation evolved from data analysis.

Residents understood drinking the Kool-Aid as accepting a set of expectations for ambitious teaching. Also, "they want you to be an agent of change" (R15). One resident described it this way:

> I'd say the Kool-Aid . . . there is such a high standard for teachers coming out of our program around the district, and what they bring to the classroom . . . Principals and everybody expects that. I think that's true. You have to be better than good. (R9)

Asked to elaborate, this resident explained, "It's not that we're competent, but that we

have the skills and the awareness to push our students further . . . that our awareness is higher than other teachers" (R9). Clearly, expectations extend beyond classroom walls. "We have to change the culture of DPS, and in order to do that we have to work with the teachers . . . I can't just have things right in my classroom" (R11). This seemed to mean that DTR alumni should push their colleagues, especially with regard to social justice issues and the achievement gap. A resident illustrated this with the anecdote of hearing a teacher describe a racist behavioral intervention. He explained that a resident would be expected to speak up. An instructor raised this scenario in one of the classes observed, saying that if residents witnessed inequitable or racist practices, they should "consider having a conversation" with the offender (FM2).

Instructors advised caution when broaching such potentially loaded issues. In another class an adjunct instructor advised "swimming with the dolphins," observing first, and offering questions, not criticisms to their district colleagues. The issue of how to be an agent of change came up often, and residents interviewed for the study had a lot to say about assuming the mantle of change: This resident elaborated:

> I think there's definitely a push . . . you're coming in with a perspective. You need to bring people along. You need to get into leadership roles. There's definitely a push that we're coming in with the latest and greatest. It's to be cocky to the point where like, this is what we know and we know it works for kids . . . without over-stepping boundaries . . . like the new hot shot. And so there is this push for us to be those incremental steps to push the district forward. (R9)

Faculty talked about the Kool-Aid with slightly different emphases. One instructor described the Kool-Aid as "believing in students . . . understanding DTR thinks

a lot differently about education, collaboration with parents and communities . . . [and] having students at the forefront of everything you do" (FM2). Another instructor described the Kool-Aid as "the DTR core values. A mindset. Not just wanting to do the best for DPS kids, but what does that look like? [and] working with kids that don't necessarily look like you. Building those relationships with them and everyone in the building, and parents. It's a mindset" (FM4).

Another faculty member described the Kool-Aid as "The DTR way":

> We do want you to drink the Kool-Aid . . . [to] believe what we believe are the best practices, and our charge to have an effective teacher in every classroom, and that there's an equity issue in education . . . that's the Kool-Aid, a way of thinking . . . You have to believe some of these basic foundational tenets. (FM6)

The researcher asked, Can you state what those tenets are? This field manager responded, "No," but after laughing, added, "One part seems to be accepting full responsibility . . . if there's a problem in [the classroom], it's usually you . . . The crux is you have to make growth [1.5 years], no matter what. And if you didn't, what can you do next?" (FM6) The researcher asked this participant about how residents receive this message. "Some look like they struggle with it. But you know we joke, that over time, they drink the Kool-Aid" (FM6).

The Manager of Program and Curriculum stated, "The Kool-Aid is DTR," and connected this to "constantly building them up. In other words, reminding them that they have the "right stuff". According to this interviewee, the Kool-Aid includes recognizing that "this is the best way to be trained to become a teacher, and not only is a residency the best model, but DTR is constantly recognized as among the best" (MPC). When asked to

comment on the social justice values embedded in the Kool-Aid, the Manager of Program and Curriculum mentioned DPS core values, service to community, and the notion of serving vs. saving, adding "we want them to become leaders." Asked did this also include becoming and an agent of change, she answered, "exactly" (MPC).

Related to this unwritten curriculum, this investigation uncovered two uneasily co-existing goals for curricula: a) to deliver a rigorous, academic, graduate level teacher education, and b) to produce an effective urban teacher with basic classroom competence, who can deliver measurable student achievement. Analysis of curriculum (defined broadly) suggests that the latter goal prevails. The researcher asked the Manager of Program and Curriculum, Is it a goal of the program to develop expertise, or for graduates to become masters in 6 or 7 years? The response was unequivocal. "Yes. As long as what it also equals is student achievement" (MPC).

In an attempt to synthesize these descriptions of the DTR Kool Aid, the researcher would characterize the curriculum (in its entirety), as having two components: a) training towards basic classroom competence as outlined by LEAP, and b) embracing a set of personal and professional values (affectionately referred to as "drinking the Kool-Aid"). The personal values have to do with understanding the significance of race, class, gender, and privilege. This includes a moral imperative to serve (not save) urban students. The professional side of this value set includes the imperative to constantly improve one's teaching, to use data to inform one's practice, and to become an agent of change. By way of member checking, one of the field managers was asked if this description was accurate. The response was, "You're spot on" (FM4).

The researcher would describe a tension between the goals of delivering a

rigorous, academic, teacher education, and preparing a basically competent urban teacher as somewhat below the surface. Exactly how the Kool-Aid figures into the curriculum is not fully understood by the researcher. However, becoming a Denver Teacher Resident does mean embracing a set of personal and professional values. Because the term is used freely, because residents did not express unease when discussing it, and because faculty appear to be transparent in communicating the "DTR mindset," this researcher would tentatively conclude that the Kool-Aid does not constitute a hidden curriculum (though it is unwritten). The researcher asked a field manager, Is the program at least honest in saying, 'this is our value system'? "That's absolutely the truth," she responded (FM4). This researcher suspects that screening selects for candidates who embrace the basic value system of the program to begin with, even though "a few fly under the radar . . . and need a little more convincing" (FM6). Also, the first quarter classes, especially Urban Education, serve as an introduction to DTR values. As a resident explained, "When I think back to the courses last year, those beginning classes as introducing you to the mission and vision of the program, I feel like if you don't buy into that . . . it's not the right fit" (R15). It would be interesting to interview those residents who do not complete the program and investigate their perspective on this issue.

Cohort learning.

The DTR deliberately builds relationships within the cohort of 75. This includes an overnight retreat early in the year. Instructors encourage mingling and relationship building throughout the fall. One resident spoke positively about this facet of the program:

I definitely feel part of my cohort . . . At this point, I can walk into class on any

given day and sit next to any of the 60 people and feel completely comfortable. Like I don't even think twice about who should I sit next to. (R15)

As an interesting aside, the residents also created a virtual cohort. According to a resident, the DTR Facebook page was important as a way of understanding assignments, due dates, etc. "Mostly about DU school stuff, clarification. What is actually due?" (R3).

Analysis of data revealed that in addition to the large cohort of 75, smaller cohorts, based on a common content area or host school, played an important role in residents' learning. Initial data analysis suggested that cohorts were extremely important for both emotional and intellectual support. Residents were asked, Are you learning from your cohort members? "Yeah…the three of us [at the host school] have really bonded" (R9). Residents were then asked, Are you learning about teaching from the school cohort, or is it more about emotional support? "Yeah. Definitely that. But I feel like it's nice to be able to bounce ideas off of people. It was nice when [another resident] was right next door" (R9).

The cohorts based on teaching specialties gathered at the university, and were sometimes grouped together for classes. Several residents mentioned informal gatherings on weekends, at local coffee shops and bars. In describing the members of an elementary education cohort, this resident said:

> I view them as people I can collaborate with, and ask them, What do you see in your classroom? . . . They give me a different perspective and different ways to think about things, or try in my own classroom. (R15)

Residents spoke enthusiastically about their school cohorts. Early in the year, it was a resource for "navigating the [host] school setting" (R13). For many, this cohort

became increasingly important. "The school cohort can be very strong and very beneficial . . . that collaboration" (R13). Several reported that they leaned heavily on the other residents at their school. "The three of us [at the host school] have really bonded" (R9).

> Having a group of greater than three residents seemed to amplify learning: Again, I feel really lucky. There were six girls [residents] there. And I truly consider all of them my friends . . . That cohort is the one I'm in the trenches with. If I had a bad day, I could walk across the hallway and get a little support. We would sometimes just pop into another room and observe them when they were teaching, and they would come observe me, and we would give each other feedback. (R15)

The most passionate discussion of school cohorts came from a resident who belonged to a cohort of seven. It was also important to this resident that four of them actually served on the same grade level team, "which has been phenomenal" (R8). The researcher found it significant that this interviewee added, "I would include the other two lead mentor teachers as part of that cohort" (R8). This particular case is interesting, and the resident elaborated on the value of his cohort eloquently:

> It's kind of like living in Colorado. You always know west. Having all those people on your team. You always have those people to support you . . .You look at all these other people [in the program] and things were breaking down. And you think things have been ok here. Because we had four mentor teachers and four residents . . .We formed our own little island . . . because we're all teaching the same thing. I can just go across the hallway and see another resident. Or I can

just ask, How did you teach [x]? Or I can go and see another resident teach the lesson, and her mentor is giving her a different suggestion about it. (R8)

Only one participant stated that the school cohort "wasn't necessarily important" (R6). She mentioned that she enjoyed membership in the program cohort, and that she valued being able to network with DTR alumni in the district, including one at the school where she will be working next year. She indicated that the cohort of special education teachers was somewhat important to her, and added that she's "kind of a loner" (R6).

Analysis of this data points to the power of school-based cohorts as a driver of novice learning. In fact, these cohorts appear to be the real locus of learning to teach. The researcher suspects that the program has yet to fully harness the enormous potential of cohort learning. And unfortunately, several residents were in host schools alone, or with only one other resident. In addition to greater emphasis on school cohorts, the researcher suspects that tailoring a school based curricula for these cohorts could provide a powerful, clinically rich teacher preparation that would develop a capacity for praxis.

Implications for Practice

Though substantive, the issues described in this chapter are not insurmountable. All new programs, especially experimental ones, encounter challenges. In the case of the Denver Teacher Residency, many of these are endemic to teacher education. Like many programs, DTR struggles to identify, recruit, and develop effective mentors and host schools (it would be interesting to consider how the selection of mentors could be made as rigorous as the selection of residents). And programs that recruit district employees to serve as faculty face the unique challenge of targeted professional development, a problem that might have been difficult to anticipate.

The important question of professional development for mentors is alive for the DTR, and no single player is more important. Results of this study identified mentors as the most important factor in developing praxis in residents. Although the program devotes significant energy and resources to mentor professional development, the Manager of Program and Curriculum conceded that she is not satisfied with this component of the program. Several other study participants acknowledged the challenge of putting together a cadre of 75 strong mentors every year. The researcher was interested to learn that one of the participants in the study, a program graduate, began serving as mentor during her first year. This is an unorthodox practice, and raises interesting questions. Preparation programs typically require some minimum level of experience to serve as a mentor teacher. In another five years, the program will have as many as 450 graduates teaching in the district, many of whom will have acquired sufficient experience to become strong mentors, and some of them will have experienced strong mentoring. This may present a solution.

Based on results of this study, including the unanticipated findings discussed above, the researcher offers the following suggestions for improving teacher education practices and novice teacher learning in a residential program:

- make the objectives of the program explicit, and eliminate the kind of curricular tension described above
- include in these objectives an explicit rubric for effective teaching, preferably the local district's teacher evaluation framework
- treat these objectives a foundation for a backward designed, original university curriculum
- design multiple, school-based curricula, which account for the host school context and teaching specialties, and in which learning revolves around a set of common problems
- enlist mentors, site coordinators, field managers, and residents in this process
- organize the mentors' professional development around this process, which engages them as teacher educators

- enlist college of education faculty to collaborate in this process
- access residents' prior learning, identify helpful skills and dispositions
- in the short term, concentrate on the development of fewer, better host schools
- in the long term, consider establishing a dedicated residency school
- attend to the adult education pedagogy and instructional paradigm of adjunct faculty, find resources for their professional development, and time for their collaboration in writing a vertically aligned curriculum map
- be transparent with respect to program values
- encourage critical thinking skills, including the interrogation of authors, texts, methods, policies, etc.
- consider adopting the term *praxis* to avoid the potentially negative associations with the term *Kool-Aid*

Recommendations for Future Research

Like so many investigations, this case study raises many more questions than it answers. In the interest of brevity, this researcher would highlight four particular topics for research that might contribute to a better understanding of teacher education practices and novice teacher learning in the particular context of a residency program.

First, a greater appreciation for, and a better grasp of, the emotional and affective facets of learning to teach are needed. The researcher was interested to hear residents refer to the Manager of Program and Curriculum as "mama bear." This person was very involved in the lives of residents, and supported several through rough periods. How important is nurturing novice teachers? What kinds of relationships between mentors and residents are best? How can cohorts help to meet the emotional needs of their members? How should we prepare teachers for the social and emotional demands of effective teaching, especially in urban schools? Scholarship is needed to answer these questions. The smaller and informal cohorts (created by the residents themselves) appear to provide valuable support to residents engaged in learning a difficult profession. Cohorts could provide an interesting bounded system for a case study.

In addition to the affective domain, this researcher suspects that residency programs could benefit from understanding the full range of human learning that novice teachers experience. The issue of child and adult pedagogies was discussed in Chapter 4, but the researcher was also struck by references to transformational learning cited by residents. For example, one acknowledged, "this program changed me" (R15). Research into the variety of kinds of learning that residents experience, and how this learning may contribute to effective teaching, would be useful.

Third, one of the unanticipated findings was related to the program's use of the local district's evaluation framework, LEAP. In creating greater program coherence and providing an explicit rubric for effective teaching, this appeared to enhance residents' learning. The researcher wonders if the use of this framework helped residents connect specific techniques to the larger goals of a LEAP indicator, and possibly to a larger pedagogy. This is a relatively simple, and a seemingly inexpensive adjustment that any preparation program could make. A better understanding of how and why this practice might enhance novice teacher learning would be helpful.

Finally, the program's emphasis on producing agents of change warrants investigation. There is a historical precedent for this expectation in teacher education reform. This researcher wonders if this represents wishful thinking on the part of reformers, and questions the logic of asking novices who are just entering the profession to change institutions that have proven resistant. It would be interesting to investigate what impact this expectation for residents may have in terms of their learning to teach.

Conclusion

This final chapter briefly restated the research problem, the methodology, and the

findings of the study. After a summary was provided, discussion of the results was organized under the headings: Researcher's Insights, Relationship of the Current Study to Prior Research, Theoretical Implications of the Study, Unanticipated Findings, Implications for Practice, and Recommendations for Future Research.

This inquiry began with two theoretical terms: locus and praxis. The researcher wanted to understand how novice teacher learning could be situated in the clinical setting of a classroom. It is interesting that without any theoretical background, participants in this study seemed to know that their learning was situated socially, within the cohorts they actually created for themselves. The power of these school-based learning cohorts was captured by a resident who explained that, "it's kind of like living in Colorado. You always know west" (R8). The researcher also wanted to know if a residency program would enhance the development of praxis. It's possible that both terms were over theorized. A benefit of this kind of qualitative investigation follows from testing the validity and usefulness of concepts. In the case of praxis, a study participant described teaching praxis far more eloquently than the researcher. "It's reading what nobody's telling you" (R13).

The Urban Teacher Residency may well be among the best options for turning teacher preparation upside down. And if we consider teacher education's roots in the normal school, a residential program actually resembles teacher preparation right side up. While residents may not yet be able to walk downstairs to use the subject and pedagogical knowledge they gain in coursework, they do at least move back and forth between the university and the their mentor's classroom every week. In this way, residency programs attempt to build a bridge between theory and practice. The gap

between these realms of knowledge, and the asymmetry between the institutions they represent, make this bridge tenuous.

Even in the reform oriented context of urban teacher residencies, the premise of traditional pre-service teacher education, that teachers "should first understand about good teaching, and should then put that understanding into practice," haunts efforts to change preparation (Hagger & McIntyre, 2006, p. 10). If this study suggests anything about the larger project of reforming teacher education, it may be this: it will necessitate much more than first understanding about good *teacher preparation,* and then putting that understanding into practice in preparation programs.

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Appendix A

Questions for Residents (first round)

Introductory, warm up questions:

Tell me a little about yourself.
How to you come to teaching?
How did you find DTR?

Tell me about the school.
How would you describe the community it serves?
How would you describe your students?
Do you know what percentage receive Free and Reduced Lunch?

How would you describe the faculty?
Have you learned about teaching from other faculty members?

About being in a cohort:

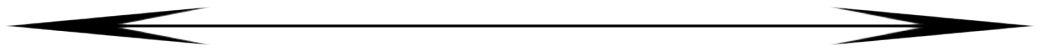
Could you talk about being part of a cohort of 75?
If you're among other residents at the host school, could you talk about your relationships with them?
Did having other residents in the building make any difference to you?
Did you learn from your colleague residents?

Locus Q:

The term *locus* is meant to suggest a nuanced and comprehensive way to consider the K-12 school and classroom as *the* essential location for learning to teach.
Where would you say was the locus of your resident's learning (your classroom vs UD)?

Locus of Learning

Denver University Classrooms — Mentor's Classroom



Praxis Q:

(P*raxis* refers to practical reasoning, problem solving, and wisdom informed by theory *in* practice.) In addition to basic classroom competence, many teacher education programs hope to develop a novice's ability to learn *from* practice and to become an adaptive expert.

To what extent do you think you have developed a capacity for praxis?

Do you think you came to the program with a disposition to reflect, and/or did the program develop that in you?

Change agent Q:

Some residents have reported a kind of tension between a sense of responsibility to become a reformer or change agent and how that is received at the host schools. Would you care to comment?

Appendix B

Questions for Residents (second round)

Note: This is the basic set of questions. Additional individual questions were included for member checking, but not included here)

About curriculum:

One of the goals of the seminar is to integrate theory and practice. To what extent do you think the seminar accomplishes that goal?

Talk about one or two of the most important assignments in the program.
Talk about one or two of the most important class activities.
Talk about the most important reading or text.

About instruction:

Does it make any difference that your seminar is also taught by the field mangers?
Is it important that your instructors for the nonsemnar classes are taught by district teachers?
To what extent, and how do instructors model best practices?

To what extent and how did your mentor model best practices?
What do you think is the most important idea your mentor would like you to take away from this year?
What do you think is the most important idea DTR would like you to take away?

About praxis, adaptive expertise, and practical theorizing

I what way do you think your instructors, mentor, and field manager are helping you to develop the capacity to solve problems in your future classroom?

Theory

Could you talk about how theory was presented in courses?

Training vs. Teaching

We didn't discuss this last time. It is something I've been thinking about after observing your courses and hearing comments from your colleagues. There's a difference between training and teaching, does that resonate with you?

It's likely both training and preparation are needed. Would it make any difference if the program and instructors were just more explicit about which was being offered?

Cohort

Could you talk a little about the cohorts that you belonged to, and whether they were important to your learning?
What difference would having a larger school cohort have made?

Locus

RQ1: In what ways was your learning deliberately situated in the host classroom/school?

Praxis

"The term *praxis* will refer to adaptive expertise, or practical reasoning, problem solving, and wisdom informed by theory *in* practice."

Were you able to witness your mentor's praxis?

RQ2: In what ways did clinical practices, learning experiences and curricula develop your capacity for adaptive expertise?

Appendix C

Questions for Mentors

Warm up questions:

Teaching experience?

Prior experience mentoring (in DTR or other programs)?

About the host school:

Can you talk about the climate of the school, faculty culture, collaboration, etc?

DTR alumni, philosophical compatibility with DTR?

Could you talk about your role as mentor?

What does that look like?

What were the most important kinds of conversations you had with the resident?

What was the most important idea you wanted the resident to take away?

Did you plan together (how)?

What do you think mentors can learn from the experience?

An expert teacher's craft knowledge is often illusive and tacit, were you able to reveal your thinking process and your teacher wisdom?

About mentor professional development:

How would you characterize the PD offered in the monthly mentor sessions?

What kinds of PD do you think you needed or wanted?

About the residents

How would you describe the resident as a future teacher?

Did he/she bring any particular skills, or dispositions to the residency?

About the resident's program of studies:

Did the resident talk to you about assignments, readings, and/or discussions?
Did he/she mention any especially important or meaningful examples?
How would you characterize your resident's learning at DU?

About theory:

What kinds of theory did the resident bring to the classroom?
Could you talk about how the resident may have integrated theory into his/her teaching practice?

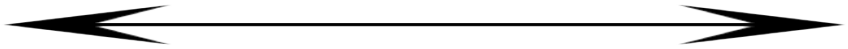
About locus:

The term *locus* is meant to suggest a way to consider the K-12 school and classroom as *the* essential location for learning to teach.

Where would you say was the locus of your resident's learning (your classroom vs UD)?

Locus of Learning

Denver University Classrooms — *Mentor's Classroom*



About praxis:

(P*raxis* refers to practical reasoning, problem solving, and wisdom informed by theory *in* practice.) In addition to basic classroom competence, many teacher education programs hope to develop a novice's ability to learn *from* practice and to become an adaptive expert.

To what extent do you think your resident has developed a capacity for praxis?
Do you think the residency will help _____ become an adaptive expert?

Appendix D

Questions for Field Managers/ Seminar Instructors

Tell me a little about yourself, your professional background, etc.
Do you have any background in adult education?
Your serving as both seminar instructor and FM seems like an important feature of the program. Can you tell me about what this means for you? Is it important for residents? Does observing them in the field impact your teaching at DU?

Questions about the residents:

Tell me about the residents? How would you characterize them? What kind of person does

the selection process render?

What kinds of prior beliefs, or preconceptions do residents bring to the program?
How does the program help residents unpack prior learning, assumptions, etc.?
How does the program build on prior knowledge and experience? (e.g., science, athletics, banking, music, training horses).
I heard the expression "drink the cool aid" several times. What is the cool aid?
I'm curious about the phrase "create a teacher." What does that mean?
Is changing residents a goal of the program?

Questions about clinical practices:
Can you talk about how you approach your work as a field manager?
What are your priorities? What big ideas guide your clinical work?
What's hard about the work?
You observe, support, advise, etc. How do you help residents develop praxis ("reading what nobody's telling you")?

Questions about learning experiences (classroom activities, assignments, etc.):
Tell me about the purpose of seminar?
What big ideas should students learn in seminar?
Is there a cornerstone assignment?
What is the difference between seminar and the other courses?
Could you talk about one of the seminar goals: "Integrate classroom experiences with the study of theory to inform their daily practice"? How does the seminar accomplish this?

In what ways do classroom activities, assignments develop residents' praxis (ability to read what nobody's telling you)?

Questions about curricula:
How would you describe the curricula of the program?
How is theory presented? What value is placed on theoretical knowledge?
In what ways do curricula develop capacity for praxis (ability "to read what nobody's telling you")?

The question of Locus:
Continuum…where is the real locus of residents' learning… at CU or the host school?
Does the program make an effort situate learning in the host school vs. the university?

General questions about DTR:
What is the primary goal of the residency?
How would you describe the ideal DTR alumnus?
One of the residents told me, "Yeah. It's not good enough just to be good" (88). What do you think he meant?
Could you talk about how you prepare residents to become change agents?

What do you think are the greatest challenges for DTR?

Are there any changes to the program you would like to see?
Is there anything else you think I should know about the program?

Appendix E

Questions for Manager of Program and Curriculum (first interview)

Study logistics and process questions:

Scheduling next visits, the program schedule for May, June, July
Priority: visit residents at host schools before year's end.
Contacting principals.
Summer session, avoiding disruptions, focus groups, protocols, etc.

How can I make the study useful to Julie? Are there any questions that I could be asking, concerns that I could be thinking about?

Questions about manager of program and curriculum role.

How did the course of studies come about?
How were curricula developed?
Could you talk about your role in coordinating curricula?
-alignment, revision, consistency among instructors, etc.

Questions about curricula, assignments and learning experiences.

Could you talk about the cornerstone assignments? What are the most important assignments, the anchors, so to speak?

Could you talk about the "Theory into Practice" paper (done in the fall seminar)?

What are the goals of the assignment? What do students learn?
Do you have exemplars you could share?

What are the most important kinds of learning activities residents engage in during coursework?

Question for second formal interview:

Do residents demonstrate knowledge and skills in the lead teach?
Is there a curriculum map?

To what extent do you think the seminar succeeded in its goal to
"integrate classroom experiences with the study of theory to inform their daily practice"

How does the program integrate the practicum and coursework?

The application, selection, and screening process?
10%?

What does "creating a teacher" mean?

What is the importance of the cohort facet of the program?

Questions for Manager of Program and Curriculum (second interview)

In a previous conversation you mentioned a process of reflecting at the end of each year and making adjustments. Can you talk about the changes you hope to make for year 6?

Questions about the residents:
How would you characterize residents? What kind of person does the selection process render?
What kinds of prior beliefs, or preconceptions do residents bring to the program?
How does the program help residents unpack prior learning, assumptions, etc.?
How does the program build on prior knowledge and experience? (e.g., science, athletics, banking, music, training horses).

The question of Locus:
Continuum…where is the real locus of residents' learning… at CU or the host school?
Does the program make an effort situate learning in the host school vs. the university?

Questions about curricula:
How would you describe the curricula of the program?
How is theory presented? What value is placed on theoretical knowledge?
To what extent do you think the seminar succeeds in the goal of "integrating classroom experiences with the study of theory to inform their daily practice"?
Are there any other ways in which the program weave the practicum and coursework together?

In what ways do clinical practices, learning experiences or curricula develop praxis, aka, expertise ("Reading what nobody's telling you")?

Questions about DTR language:
What does "creating a teacher" mean?
What does "drinking the Cool Aid" mean?
Could you talk about how the expectation for residents to be change agents?
Is changing residents a goal of the program?

Member checking:

It seems to me that the two core components of the curriculum have to do with: a) training towards basic classroom competence as outlined by LEAP, and b) embracing a set of personal and professional values (affectionately referred to as "drinking the cool aid").

The personal values have to do with understanding the significance of race, class, gender, and privilege. This includes a moral imperative to serve (not save) urban students. The professional side of this value set includes the imperative to constantly improve one's teaching, to use data to inform one's practice, and to become an agent of change in the district.

Time permitting
What makes a good mentor?
What makes a good host school?
What is the importance of the cohort facet of the program?

What do you think are the greatest challenges for DTR moving forward?

You mentioned that the PD of mentors was on your mind, what will PD for mentors look like this year?

I'm also curious about the PD for your instructors. What kinds of PD do you think FMs need? What about the other instructors, what PD do they need?

Could you comment on these remarks:
"Yeah. It's not good enough just to be good"

We're not in a masters program to learn about teaching. We're in a program to learn how to teach in the quickest way possible with the best practices, the most high yield practices" (152).