INTERSECTING KNOWLEDGE FIELDS:

A CASE STUDY

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ABSTRACT

This study focuses on the task of contextualizing theoretical funds, fields, and systems of or related to teacher knowledge grounded and translated through the lived experiences of teachers. Notably, although the scope of such a study lends itself to the study of multiple teachers across multiple contexts, this study focuses on one singular teacher, which functions as a means to better understand the lived translation of multiple knowledge funds through a single lens -- one that lends a lens by which to view other experiences. Using various funds and sources described in the literature surrounding this discourse, notably such works from Lortie (1971) and Shulman (1987), I isolated, selected, examined and analyzed funds of knowledge in practice.

This study was conducted using a single interview from a purposive sample; the participant is a female English teacher, teaching in an urban context. Findings suggest that some teachers privilege sources of knowledge, such as apprenticeship and mentorship versus formal training, and ways of knowing, such as implicit knowledge versus formal training, in their decision-making and pedagogical practice; also, such funds of knowledge as knowledge of student's communities and sociocultural landscape aid in teacher knowledge development in meaningful ways.
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I have recently finished Malcolm Gladwell's *Outliers* (2008). And as I finished Gladwell's work, I could not help but think about the opportunities -- and the moments I seized those opportunities -- that were largely inherited or arbitrary. I can look no further than to the people in my life as the embodiments, the stewards, the marshals, the support of these vast opportunities that I oft take for granted. And while I cannot acknowledge every agent, I do wish to illuminate those that I often leave in the shadows.

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patience represent only the kind of relationship of two who cannot and will not be apart: 

*Wherever you go, I will go; wherever you live, I will live (Ruth 1:16).*

To my professors, thank you for treating me as your colleague. Thank you for your continued support, both academically and emotionally. Thank you for your presence. I don't know that we commend your fastidiousness and your care enough -- so please, know that you are central to who we are as young scholars and teachers and that you make a difference. Thank you to my committee members, Dr. Michelle Bauml and Dr. Robin Griffith for your mentorship and your guidance. I also have a special place in my heart for Dr. Cecilia Silva. You model an immense level of scholarly inquiry and insight -- while also providing unparalleled safety and compassion.

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Thus, I dedicate this thesis to Amber Esping . . . unless it is, in fact, poorly executed; in which case, I dedicate this thesis to Jonathan Turner, because he knows what dedication looks like: he has witnessed it directly from these.
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INTRODUCTION

*My first semester, I had only nine students. Hoping they might view me as professional and well prepared, I arrived bearing name tags fashioned in the shape of maple leaves . . . . I opened my briefcase and realized that I’d never thought beyond this moment . . . . A terrible silence overtook the room, and seeing no other option, I instructed my students to pull out their notebooks and write a brief essay on the theme of profound disappointment.* (Sedaris, 2000)

While the above quotation intends to be humorous and comical, humorist David Sedaris implicitly makes several very salient observations about teaching. Rather, he questions teaching -- his own teaching, rather, which ultimately leads to further meaningful conclusions about effective teaching, and the identity of the schoolteacher, more broadly. Sedaris reflectively observes a lack of teaching knowledge in his own teaching; quite literally, he acknowledges the lack of tools in his teacher's toolbox, physically and epistemologically. However, he also decidedly makes decisions with some measure, with some fund of knowledge about teaching -- admittedly or not -- or *teacher knowledge*. From this text, his reader might ask: how do teachers make decisions? From what funds of knowledge do teachers draw to make these decisions? Thus, what is this knowledge and what is teacher knowledge? What constitutes teacher knowledge?

This thesis effectively attempts to address such questions -- at least in part -- by engaging the literature surrounding the discourse of teacher knowledge and pedagogical practice and finding ways of knowing and doing that honor such literature in practice. I seek to understand teacher knowledge as it effectively translates from theoretical package and framework into embodied and meaningful experience. Moreover, this study focuses on the task of contextualizing theoretical funds, fields, and systems of or related to teacher knowledge grounded and translated through the lived experiences of teachers.
Using various funds and sources described in the literature, notably such works from Lortie (1971), Shulman (1987), and Buchmann (1987), I isolated, selected, examined and analyzed funds of knowledge in practice, translated through lived experience -- theory contextualized and made practical and authentic.

Thus, this study examines the teaching practice of one high school English teacher and her individual and collective funds of teacher knowledge. Notably, although the scope of such a study lends itself to the comprehensive examination of multiple teachers across multiple contexts, this study focuses on one singular teacher, which functions as a means to better understand the lived translation of multiple knowledge funds through a single experience of teaching with multiple ways of knowing such experience -- a lens that provides a way to view the multiple and diverse experiences of others.

I find that knowledge constructed from lived experiences, funds of content knowledge, and contextualized sociocultural knowledge provide funds to support effective teaching in ways that perhaps surpass funds developed through traditional or formal ways of knowing. By engaging the literature, explaining methodologies and procedures, analyzing findings of such engaged qualitative data, we may make conclusions both timely, as teachers make moves toward more effective pedagogical practice, as well as far-reaching -- notably, we will recognize the place for formal preservice teacher training criticisms.
LITERATURE REVIEW

The rhetoric regarding [teacher knowledge], however, rarely specifies the character of such knowledge. It does not say what teachers should know, do, understand, or profess that will render teaching more than a form of individual labor, let alone be considered among the learned professions. (Shulman, 1987)

In the following sections, I describe the research- and theoretically-based understandings of teacher knowledge funds, i.e. formal training, implicit theories, personal epistemologies, apprenticeship of observation, and content/pedagogical content knowledge (PCK), as they relate to teacher knowledge based on a selected collection of the literature; this selection of literature is intended to provide a basic review of pertinent frameworks within which I am working.

For this purpose, teacher knowledge is best described as a specialized knowledge base; a “...codified...aggregation of knowledge, skill, understanding, and technology, of ethics and disposition, of collective responsibility – as well as a means of representing and communicating it” (Shulman, 1987). Implicit in this exploration is also the notion of source, or the external experiences and internal resources that contribute to rich funds of knowledge, such as the ability to cognitively organize teacher knowledge, e.g. expertise and various levels of conscious and unconscious competence.

Formal Preservice Teacher Training

One may categorize teacher knowledge in two distinctive measures: 1.) The quality and character of a specialized knowledge system utilized and employed in teaching contexts and 2.) The source from which teacher knowledge is influenced, constructed, or experienced. In terms of formal training, we define such as both a source of knowledge, or a composite form of existing funds of knowledge one draws from
perception, and an isolated fund of knowledge that one constructs for him- or herself internally; note, this delineation will serve as the normative definitions for sources and funds throughout this thesis.

Thus, we will define formal teacher training, and teacher knowledge within this context, as any formal, structured, intentional, and organized training designed for individuals who have declared both a teaching identity and vocation -- with all of the roles and responsibilities ascribed to this position and level of training -- and are actively pursuing candidacy for teaching internship and professional practice. This may include formal preservice teacher training completed in a college of education, continued developed/in-service teacher training and staff development, or, this also may include as a broad umbrella term, training received from an alternative certification program.

While formal teacher training is largely the dominant paradigmatic training for preservice teachers and individuals interested in professional teaching practice, such training has historically received harsh criticism -- notably regarding the effectiveness of such training as well as correlation to both teacher efficacy and student performance. We see the emergence of problems within the academic institution of teacher education and training. This type of training displays patterns of being, doing, and knowing upheld by empirical data. Thus, "underlying this way of defining teacher education was a technical view of teaching, a behavioral view of learning, and an understanding of science as the solution to educational problems" (Cochran-Smith, 2004).

In essence, formal teacher training is the fidelity to acceptable patterns of being. The question of "acceptability" creates necessary tension in the way we conceptualize teacher training. Acceptability is thus rooted in the research, research that does not,
perhaps, consider the complexities and shifting contexts of classroom instruction and applicable, meaningful pedagogies (Shulman, 1987). Further, the point of research on teacher education was the identification or the invention of transportable teacher-training procedures that produced the desired behaviors in prospective teachers. . . . With process-product research, the goal was to develop "the scientific basis of the art of teaching" (Gage, 1978) by identifying and specifying teacher behaviors that were correlated with pupil learning and applying them as treatments to classroom situations . . . (Cochran-Smith, 2004)

However, Shulman (1987) maintains:

The actions of both policymakers and teacher educators in the past have been consistent with the formulation that teaching requires basic skills, content knowledge, and basic pedagogical skills. Assessments of teachers in most states consists of some combination of basic skills tests, an examination of competence in a subject matter, and observations in the classroom to ensure that certain kinds of general teaching behavior are present. In this manner, I would argue that teaching is trivialized, its complexities ignored, and its demands diminished. (Shulman, 1987)

While such criticisms seem directed towards research methodologies and assessment of teaching, key to this argument is how this research is translated and adapted for teacher training and education as well as how formal teacher training programs work to support teacher knowledge and development. Although critics of formal teacher training have made their criticisms known, policymakers and teacher educators continue to develop novice teachers through this way of knowing -- through empirical data that "assumes that complex forms of situation-specific human performance can be understood in terms of generic underlying processes" (Shulman, 1987).

While the community of researchers and educational scholars may agree that such underlying processes, such as cognitive processes and learning sciences, are valid explanations of human learning, that these underlying processes are more or less generalizable across learning events, and that we can better understand human ways of
knowing through these complex explanations, they may argue that these processes may not effectively contribute to our most nuanced understanding of effective teaching. Shulman notes, "Critical features of teaching . . . are generally ignored in the quest for general principles of effective teaching" (Shulman, 1987). Further, the general principles described in the literature that have become the assessment of effectiveness, and thus are integral aspects of formal teacher training, due to their status as "research-based" or based on empirical data; however, "while the researchers understood their findings to be simplified and incomplete, the policy community accepted them as sufficient for the definition of standards" (Shulman, 1987).

While the empirical data suggests certain findings as valid understandings and measures of effective teaching, such generalizable principles may disregard the complexities and contexts of teaching -- and thus, traditional teacher training maintains such measures, assessments, and strategies. We can interpret the criticism as a fundamental issue with the formal training of teachers, how such training utilizes research, methodological and epistemological flaws included, and how teachers then internalize this training as a fund of knowledge. Recent findings suggest formal training is largely ineffective in their support of effective teaching -- and thus, in developing funds of applicable and meaningful teacher knowledge. This data concludes that in elementary and middle school teachers, the most meaningful training was experiential -- "on the job" training. Further, some literature maintains an "inconsistent relationship between professional development and teacher productivity" (Harris & Sass, 2011).

Note, this thesis does not in any way denigrate preservice teacher training; however, for a balanced and rich understanding, we must take into account both that
formal teacher training, in any iteration of formal teacher training (i.e. traditional training, teacher in-service/staff development, and alternative certification models employing any component of formalized training), is the paradigmatic method for training teachers -- thus holding with it an established status -- and that there are fundamental flaws, at least criticisms, maintaining resistance to the current models and methods of teacher training.

**Implicit Theories and Knowing**

Learners approach various situations, or events, with prior knowledge, beliefs, attitudes, presumptions and socially constructed collective public knowledge -- this is thus a foundational aspect of learning; these cognitions inform their worldview, facilitating the meaning made and further influencing the construction of knowledge (DeFrates-Densch et al., 2004). Implicit theories, as a mode of constructing knowledge and meaning, require the individual to peer through the conceptual lenses we, as learners, have constructed, ourselves, based on our epistemic standpoint, our perspectives on the world, and our prior experience. These dimensions of learner "thought space" work in tandem to create what psychologists refer to as "implicit theories"; implicit theories are those strongly held ways of being, doing, and knowing constructed based on prior held cognitions rather than direct fidelity or adherence to a standard, research-based theoretical/conceptual construction. Implicit theories are situated within the minds of the individual learners, often as the products of misconceptions, myths, misinformation, or "common sense" (DeFrates-Densch et al., 2004).

In other words, implicit theories are personally held, personally constructed theories about various phenomena, determining how learners, or, in this case preservice teacher-learners, see and approach a learning event and make meaning from the event or
Implicit theories can function as the starting position for scientific or generally accepted theories within a determined context (DeFrates-Densch et al., 2004). While implicit theories are not validated, necessarily, by the tenants of the discourse within which they may be situated, implicit theories, in both science and other fields, such as education, can, and often do, inform and determine not only practice, but also the genesis by which accepted or validated theoretical frames are built. Keeping this in mind greatly informs later research on the use of implicit theories and personal epistemologies.

This work recognizes, however, that "implicit theorizing" may be too broad of a term for this discussion; thus, I would like to acknowledge three categories of teacher knowledge, as proposed by Buchmann (1987), that implicitly uphold this notion of personal theorizing and implicit knowledge as a valid way of knowing. Buchmann categorizes these three types of teacher knowledge as dependent sources in a system; however, using the operational definitions/delineation posed above, such analysis may prove overly simplistic -- or conversely, too precise.

Buchmann notes that these act as sources, rather than a quality or kind knowing, as "less what the associated knowledge is about than how it is held and used (Buchmann, 1987). However, using the language of "funds, fields, and system" as a composite way to put all types of such categories into conversation, these three categories effectively reflect funds of knowledge, or ways of knowing -- and while these three unique categories are indeed sources, they also function as a type of knowledge or way of knowing, even as funds of knowing that composite external sources and internal ways of knowing/funds of teacher knowledge. Moreover,

[t]he folkways of teaching describe 'teaching as usual,' learned and practiced in the half-conscious way in which people go about their
everyday lives, in which they carry themselves fittingly. These folkways are typical and generally work; they have their correlates in the character of school knowledge -- that is, in the content and structure of what children learn in school. (Buchmann, 1987)

Further,

[1] Local mores constitute teaching knowledge held and used like the folkways and mostly based on them, yet local mores are more variable and likely to be articulated as maxims or missions. Teachers' private views are like Bacon's . . . 'idols of the cave.' Personally compelling, these 'idols' arise from the peculiar experiences, feelings, and characteristics of individuals who nevertheless are members of groups; hence even their idiosyncrasy is socially colored and bounded. For these three sources of teaching knowledge, 'familiarity, common repute, and congeniality to desire are readily made the measuring rod of truth' . . . (Buchmann, 1987)

Because these categories of teacher knowledge, and what this thesis maintains as ways of knowing and funds of knowledge, are held as opinion, guesswork, and mere tradition, acquired by habit, false inference, and simple internalization which turns patterns of action and interpretation into things 'no longer easily accessible to reflection, criticism, modification, or expulsion . . .' (Buchmann, 1987),

such categories readily fit into the overarching implicit knowledge framework proposed here. While these sources of knowledge may have some sort of direct external output device or model, they are internalized to a degree difficult to measure or reflect; thus, they act as implicit knowledge, or knowledge that cannot be articulated necessarily in terms of research or external sources as an input device or model. Again, while the notion of implicit knowledge is a broad term, these three categories of teacher knowledge, or what I maintain as ways of knowing as well as funds of teacher knowledge, act as a framework by which to understand "knowing without knowing."
Personal Epistemologies

Related, personal epistemologies are ideas held about knowledge, and the nature of knowledge, defined and constructed by an individual rather than direct consultation with existing, standard, generally accepted ideas/perspectives within the field of philosophy, psychology or, perhaps more specifically, epistemology, a specified branch of philosophy (Elby). Although related, personal epistemologies and implicit theories are decidedly distinct. Implicit theories are individual, personal explanations for the existence or relationship of various phenomena, based on individual prior cognitions, including teaching, pedagogy, and instructional strategies; personal epistemologies are individual constructions of knowledge, in the abstract, the nature of knowledge, and, only when very broadly defined, views on learning. Also, the separation between "views on knowledge" vs. the "views on learning" is a somewhat contested space within the discourse of personal epistemologies. While there is an obvious intertwining relationship, as one's notions of knowledge and the nature of knowledge are related to, if not influenced by, conceptions of learning (Elby); however, researchers still maintain that for the integrity of epistemological studies within the domain of philosophy and psychology, there must be a distinction as well as a recognition of relation.

For the purposes of this paper, we are working with the broadly defined personal epistemologies, the conception of knowledge, the nature of knowledge, the construction of knowledge, and the process of learning. We will also work to maintain both the distinction as well as, conversely, the interplay between implicit theories and personal epistemologies. Within this operational definition, we can then determine how implicit theories and personal epistemologies work in the practice of teaching, and the process of
teacher education -- both formal and informal -- as these relate to the construction and use of teacher knowledge.

Little work has been done specifically regarding the connection between personal epistemologies and pre-teachers (Brownlee et al., 2012). While this paper focuses on the relation between practice and personal epistemologies and implicit theories, I contend that to better understand how these relate in practice, we must fully understand how they relate to preservice teachers, both prior to and during a teacher preparation program. Once this is established, we may begin to view literature that has tracked the progression of personal epistemologies, as this implicates, at least on one level, the development of teacher knowledge as it specifically relates to theorizing from the personal -- analyzing this part of teacher knowledge development. The literature on personal epistemologies and implicit theories describes the relationship between theorizing from the personal and practice.

Evidence suggests that individuals' beliefs about knowledge and knowing, or personal epistemologies influence the knowledge construction of teachers. These beliefs work to organize and prompt teacher behavior (Whitbeck, 2000). Some researchers consider these epistemologies as a filter, filtering preservice teachers' new knowledge or experiences; thus personal epistemologies influence learning strategies and outcomes -- influencing what knowledge is constructed and the use of that knowledge (Brownlee et al., 2012).

Research indicates that preservice teachers enter into teacher prep programs with varying levels of knowledge and understanding -- both personal and standard research-based. However, most preservice teachers come into programs with beliefs about
teaching, knowledge, and learning (Whitbeck, 2000). Gaining insight into how these personal theories or epistemologies work to further the advancement of teacher knowledge is vitally important in understanding how to approach teacher education as well as improve in-practice, in-service teaching. Researchers in the Whitbeck (2000) study were interested in student beliefs about teaching and learning as concepts as well as the genesis of these beliefs. These researchers studied 14 preservice teachers' personal beliefs about teaching and learning. In this study, they concluded that these personal theories organize ways of being and doing the teacher identity; they also determine what is learned and constructed as a result of personal epistemologies and implicit theories.

The researchers first studied the genesis of these beliefs. The majority of the implicit theories about teaching are a result of being a student and observing -- a sort of apprenticeship of observation. Also, their beliefs derive and develop from their experiences as students in terms of empathy, having an idea of what it is like and what it means to be a learner in partnership with a teacher, and from others' comments -- recognizing a "natural" ability to teach. They also appeared to hold a simplistic view of teaching and learning. Speaking back to the varying theories in which students operate, this study also noted key differences in theories relating to the desire to become a teacher; there were several sorts of tropes, used loosely, in which preservice teachers embodied entering into the program. Some were interested in what they theorized was educational strategy, others identified as "born to teach," holding a view of teaching as closely related to their own personal ethos, and others wanted to be "students of teaching and learning" (Whitbeck, 2000). All of these tropes are operating under implicit theories and personal epistemologies about what it means to "be" a teacher, to teach, and to learn.
In this study, determining what was believed prior to entrance into the program and what had been constructed since admittance was challenging. However, despite the obvious challenges, the researchers determined that beliefs informed the ways preservice teachers saw themselves as teachers and saw teaching and learning in the abstract, some claiming that teaching is a calling and others focusing on a self-as-teacher view (Whitbeck, 2000). All of these theories were part of the developing implicit theories and personal epistemologies about their vocation. Many of the participants in the study perceived themselves as teachers even prior to entrance into the teacher prep program, indicating that they had some sort of conception of what teaching "is"; however, as these participants were limited in their understanding, limited in that they had yet to become teachers or adopt the teacher identity, they are working under implicit theories about teaching and learning (Whitbeck, 2000).

This presented a problem when confronted with challenges to their personal theorizing; also, in terms of teacher education, many of the instructional strategies and theoretical frameworks of which they were exposed were trivialized, with many of the students believing that they could effectively navigate most common classroom problems with relative skill -- even prior to having confronted these challenges in the field. In general, evidence suggests that preservice teachers are working within implicit theories that work to romanticize teaching, indicating that these individuals' theories are promoting unrealistic optimism (Whitbeck, 2000).

Conversely, however, other studies demonstrate that preservice teachers with sophisticated personal epistemologies were open to new perspectives and ideas. For instance, in research on first year Norwegian preservice teachers, researchers concluded
that accessing personal epistemologies influenced the capacity for critical thinking. More broadly, however, most research, including the research discussed in this paper, indicates personal epistemologies have a direct influence on attitudes and beliefs about teaching, learning, and pedagogical strategies (Brownlee et al., 2012; Whitbeck, 2000).

Moving forward, researchers, as described by Brownlee et al. (2012), analyzing the performance of preservice math teachers beginning their first year of in-practice teaching, noted that the newly in-service teachers regressed to traditional instructional theories; they did, however, become more constructivist over time, transferring from their traditional beliefs to the a more research-theory oriented mode of teaching. In other research, described by Brownlee, personal epistemologies and implicit theories guide teachers of special education. These researchers found a relationship between personal epistemologies regarding beliefs about ability/disability and pedagogical practices (Brownlee et al., 2012).

The researchers determined that teachers with more sophisticated personal epistemologies, using a more specific definition regarding the nature of knowledge, demonstrated a tendency to use dialogue as a means of critical thinking with individuals with disabilities; teachers with less sophisticated personal epistemologies, those that, for example, construct knowledge as absolute and received passively, used more teacher-centered strategies and traditional, didactic teaching approaches. Finally, we find that personal epistemologies also inform teachers within literacy education. Personal epistemologies have been found to define views about effective literacy teaching.

If the personal epistemology defined knowledge and learning as simplistic, the teacher was more likely to engage in behavior management; however, those that viewed
knowledge and learning as a complex process were less concerned with classroom management and more tolerant of independent study (Brownlee et al., 2012). In general, the literature on personal epistemologies and implicit theories indicates that 1.) personal epistemologies and implicit theories play a role in the development of teacher knowledge and 2.) they work to inform teaching practices and strategies.

How, then, can the attitudes and beliefs of preservice teachers translate into in-service teaching? For this, we must view research that actively tracks personal epistemologies -- projecting the use of personal epistemologies and how they develop in preservice teachers. In terms of tracking, the research team, which Brownlee described, tracked a group of preservice teachers through a program, analyzing their personal epistemologies throughout. The results indicate that the preservice teachers experienced a general increase in the sophistication of personal epistemologies, suggesting that preservice teachers are likely to perceive learning in a holistic way, engaging in meaning pedagogical strategies and teaching approaches (Brownlee et al., 2012).

In terms of personal epistemologies about teaching in the aggregate, the literature illuminates a link between highly sophisticated personal epistemologies in preservice teachers and theoretical practices that promote meaningful learning. The personal epistemologies of various aspects of knowledge, teaching, and learning showed significant shifts with the exception of "knowledge construction" (Brownlee et al., 2012). Preservice teachers in their final years "were no more likely" than in their first year to "view the process of knowing as based on personal construction" (Brownlee et al., 2012). This is interesting, in so far that meaningful shifts occurred in personal epistemologies
regarding the nature of knowing and learning. However, to determine the effects of personal epistemologies in a longitudinal sense, research still remains.

**Apprenticeship of Observation**

Similar to the notions of implicit knowledge/knowing and personal epistemologies, Lortie (1975) proposes an apprenticeship, or, specifically, apprenticeship of observation: "the phenomenon whereby student teachers arrive for their training courses having spent thousands of hours as schoolchildren observing and evaluating professionals in practice" (Anderson et al., 2013; Borg, 2004; Lortie, 1975). Whereas this phenomenon is specific to teaching, as young people aspiring to other professional vocations have less access to those counterpart models, Lortie proposes that it is from this fund of knowledge that preservice teachers draw as a foundation for their beliefs about teaching -- or, acts as a way of knowing about teaching that in turn functions as a fund of knowledge supporting pedagogical practice (Lortie, 1975).

Thus, Lortie posits that the approximate four years of preservice teacher training may not be sufficient in "de-programing" twelve years, approximately, of intensive observation of teaching -- and, by extension, what teachers know. These images, these representations of teachers and teaching, become a fund of knowledge due to the quality of the knowledge and how this way of knowing is employed and used to effectively teach. The apprenticeship of observation becomes a template for preservice teachers (Lortie, 1975), although often left implicit, to adjudicate new ways of knowing, funds of knowledge, or pedagogical practices. This form of apprenticeship becomes what teachers know -- or teacher knowledge (John, 1996).
However, the apprenticeship of observation is complicated by the relatively limited, subjective epistemological standpoints of students observing and acting as apprentices (Borg, 2004). Students rarely experience the full depth of teaching, because the role of student does not permit such close examination. The role of teacher, a multifunction role, and the responsibilities of the role and vocation, is in part mystified to the learner and learning community. In addition, "the apprenticeship and its ensuing inscriptions are troublesome to teacher educators (Darling-Hammond, 2006) who seek to provide a theoretical knowledge base for PSTs and foster nontraditional perspectives (Feiman-Nemser, 1983)..." (Anderson et al., 2013).

Only singular segments of richer teacher experiences are accessible to a learner -- thus, the knowledge constructed by students of teaching, and, by extension, the multifunctionary role of the teacher, is oft skewed and lacks a depth of experience. Further, students are not "privy to the teacher's private intentions and private reflections of the classroom event" (Borg, 2004). One may argue, then, that apprenticeship of observation, while an implicit and internalized template for organizing novel experiences of teacher knowledge, is a fund skewed by one's own epistemological standpoint and epistemic burden (John, 1996).

It is from such apprenticeship that one may develop the "folkways of teaching," mentioned in previous sections of this thesis (see "Implicit Theories and Knowing"). Borg (2004) contends,

As these teaching behaviors are largely unanalyzed, they remain 'intuitive and imitative (Lortie, 1975) and have been described as 'folkways of teaching', that is 'reading made recipes for action and interpretation that do not require testing or analysis while promising familiar, safe results (Buchmann, 1987: 161). This model thus provides student teachers with
'default options', a set of tried and tested which they can revert to in times of indecision . . . (274)

Folkways, then, become a quasi-default by which novice teachers refer. Again, a central tension here is that these default modes are largely unrecognized and usually without analysis. They are, as Buchmann (1987) notes, "familiar" (161) and benign, safe -- the logic follows that if some practice was effective, or not, it resulted in the novice teacher-as-outcome. Folkways and apprenticeship of observation complicate and amplify issues of formal training v. previous experience and implicit knowing. Notably, as stated above, these ways of knowing often order themselves, as meaningful practice, before funds of knowledge constructed from formal training -- so, we may ask, in this context, why do we maintain fidelity to traditional models of teacher education? This topic will be addressed in the "Discussion" section below.

While many, Lortie included, recognize this form of apprenticeship as inherently negative (Borg, 2004; Lortie, 1975), perhaps this fund of knowledge proves most effective in teacher development -- through both formal training and implicit knowing alike. For instances, "other scholars . . . have suggested that the autobiographical memories of students should be solicited for exploration and sometimes affirmation" (Anderson et al., 2013).

Whereas teacher educators may have at one time dismissed or taken for granted these autobiographical experiences (Anderson et al., 2013), research supports a notion that engaged autobiographical material makes explicit the implicit apprenticeship of observation. Reasons for such exploration into making the implicit apprenticeship explicit range; however, most relevant for this thesis' purpose is the notions of 1.) making privately held ideological norms known so that we may systematically challenge the once
held broad-reaching conclusions of realistically limited ideologies and norms, and 2.)
deconstructing previously held images and templates to acknowledge limitations and
promote exploration of novel conceptual packages and practices -- or the assimilation of
novel concepts into the existing effective template (Anderson et al., 2013).

The notion of control complicates issues of apprenticeship of observation and
preservice teacher autobiographical awareness. Namely, control of these images, having
command over the reaches of prior experience and prior models of teaching from limited
viewpoints, and acknowledging these cognitions, may help stave off ineffective practice
(Anderson et al., 2013) -- or stave off resistance to the ever changing pedagogical
landscape as cognitive and educational research continue to shift our conceptions of
effective teaching and learning. As Anderson et al. (2013) note,

[t]he apprenticeship of observation can be challenged, despite its supposed
intense effects on PSTs. An opportunity exists in teacher education
to recognize the autobiographical experiences of students and to mediate
them, in some fashion, with coursework and experiences.

Rather, while the apprenticeship of observation has both a life as a way of knowing
implicit, and made explicit by formal coursework, one could argue that this way of
knowing translates directly into a fund of knowledge -- as it is concurrently a source,
coming from an external model, and a fund, an internal feature that organizes experiences
and makes meaning by which we internalize, utilize, and employ.

**Shulman's Teacher Knowledge Framework and System: Pedagogical Content Knowledge**

While the above may best be described as a conversation of sources and ways of
knowing as funds, this work has ignored, in large parts, systems as funds as it fits into the
overarching and encompassing scheme of fields, systems, and funds -- on which this
thesis rests. In terms of systems that work, in part, as funds, Shulman (1987) provides a framework by which to categorize at least three distinctive knowledge types/categories into one system. Note, this thesis grossly synthesizes and reduces: as of all the categories enumerated in his system, I have isolated and selected the three overarching and, for the purpose of the present paper, most important to this discussion. However, this is done with the aim of these three categories acting as broad understandings of all that Shulman enumerates; i.e. all others are in some way related to these major three categories.

Shulman (1987) maintains recognition of content knowledge, general pedagogical knowledge, and content pedagogical knowledge (8). Content knowledge is the knowledge specific to each disciplinary domain; i.e. this is the knowledge of a teaching field, such as English or mathematics (Shulman, 1987). Sufficient and general pedagogical knowledge is also consistently an important aspect of the umbrella term "teacher knowledge." Associated knowledge includes "special reference to those broad principles and strategies of classroom management and organization that appear to transcend subject matter" (Shulman, 1987). At the intersection of these two categories is pedagogical content knowledge, or this notion of ability to teaching respective content effectively -- or utilizing pedagogical strategies specific to this content area. Shulman describes this category as "that special amalgam of content and pedagogy that is uniquely the province of teachers, their own special form of professional understanding" (Shulman, 1987).

Of these categories, pedagogical content knowledge is of emphasis, particularly as it relates to the context and content of this thesis. Pedagogical content knowledge, or PCK, "represents the blending of content and pedagogy into an understanding of how particular topics, problems, or issues are organized, represented, and adapted into diverse
interests and abilities of learners, and presented or instructed" (Shulman, 1987). Thus, this category of knowledge, that I will maintain acts as a fund of knowledge, enables teachers to access entry points into the nuances of content teaching. This fund, however, is unique in that it does not operate independently as some of the funds mentioned in this paper. Rather, the source for this fund is left unidentified, as such a knowledge base may come from apprenticeship or formal training, implicit knowledge or explicit. Regardless of source, PCK, as well as the system in the aggregate, acts as a fund of teacher knowledge, as it provides a transitional bridge between the various and diverse ways of being, doing, and knowing teaching and learning.

**Expertise and Levels of Competence**

For the purpose of this paper, we will also take for granted the existence of teacher knowledge as a legitimate part of the teaching and learning experience. Rather than discussing what teacher knowledge is, or how it is defined, I would rather discuss how teacher knowledge is used by expert teachers -- as a way of understanding the theoretical underpinnings, the conceptual base, from which we work, promoting a much more global understanding of this domain. Most striking is the dichotomy between expert and novice. Many of the differences between experts and novices are not only in the knowledge and experience, but also how knowledge is used and organized. More specifically, out of the six underscored differences between novices and experts, four are concerned with knowledge and are vital to the notion of this dichotomy; these include: noticing features and meaningful patterns of information based on funds of knowledge, the extended funds of content knowledge (and for our purposes, "content" knowledge will broadly encompass "teacher knowledge" and the experiential knowledge teachers
I posit, extending this argument to the domain of teaching specifically, that expert teachers acquire and develop teacher knowledge much in the same way other experts acquire "content knowledge"; in other words, teacher knowledge is part of the content "domain" of a teacher. This is not to say that teachers don't develop expert levels of knowledge within their content fields (such as English or mathematics); however, also a vital part of a teacher's "content knowledge" is teacher knowledge and all of the subsets of knowledge required in the creation of teacher knowledge. For our purposes, I will describe the two characteristics of expertise most relevant to our later discussion of personal epistemologies and implicit theories as teacher knowledge: recognition of meaningful patterns and organization of knowledge for fluent retrieval.

Early research of expertise illustrates the difference between funds of knowledge in experts and novices. In turn, how an expert approaches a situation is greatly different than that of a novice, as this knowledge base informs perspectives and allows the expert to make meaning that a novice cannot with his or her limited knowledge -- and time. Part of expertise is the time spent becoming an expert. Researchers determined that knowledge constructed over thousands of hours, such as a chess expert, allows an expert to outperform a novice. While this seems logical, it is actually more complicated than common sense. The time and exposure to various conceptual frames is vital in the acquisition of knowledge; however, this acquired knowledge then works to illuminate meaningful patterns of information. For instance, in the research on chess, chess masters became expert chess players by recognizing meaningful configurations of chess plays,
understanding strategic implications of the chess event (National Research Council, 2000).

Similarly to domains such as math and chess, described above, expert teachers also demonstrate the capacity to recognize meaningful patterns; according to the research, teachers had similar schemas to the chess and mathematics experts. Illustrated by research written on expert teachers, findings indicate that part of recognizing meaningful patterns is also the ability to notice actions or ideas expressed in a learning event that novices do not notice -- as their knowledge base, specifically experiential knowledge, is limited. For instance, in the research described by the National Research Council, teachers and novices were tasked with the same activity -- to study and observe classroom events from three monitors with simultaneous movement. The results concluded that novices and experts differ in both what they noticed and what meaning was made from this observation, all of which, according to the council, was a result of the experts' time/experiences, relatively rich funds of knowledge, and recognition of meaningful patterns (National Research Council, 2000).

Moving forward, experts differ from novices not only in the recognition of meaningful patterns of information, but how knowledge is organized, accessed, and retrieved. Expert knowledge is organized around core conceptual frames rather than isolated facts and formulas of the domain, the way of the novice. In other words, experts organize information around the larger picture to guide their thinking and understanding (National Research Council, 2000). Experts think conceptually; they work through problems by first assessing the underlying concepts and theoretical underpinnings. They solve problems based on applicable principles centered around a core concept; novices,
however, approach the problem from a surface level understanding, looking at the
problem in the "face," so to speak, rather than critically analyzing and exploring the
various conceptual core and theoretical underpinnings vital to understanding the domain
as well as the situational problem. Even when assessing schematic constructions, or the
schema constructed for various concepts, novices demonstrated surface attributes of, for
example, a physics concept. The experts organized their information, or contributed to
and extended their schema of a concept, around important ideas and conceptual cores
(National Research Council, 2000).

Further, such literature describes research that tested novice and expert historians
in American history, for example. In this research, the two test groups were asked a series
of history questions about a broad range of American histories. The novices were high-
achieving high school students; the experts were historians, all of whom were experts in
different studies within the broad domain of history. When tasked with recall about
American history, the novices answered more questions correctly than did the historians;
however, the historians far outperformed the novices when making meaning from
historical documents. The researchers concluded that the experts approached the task
much differently than did the novices. The experts had funds of knowledge organized
around core conceptual frames. They had limited experience, if any, with methods of
inquiry in terms of historical thinking. They lacked the experts' deep understandings of
how historical documents function and how to interpret these documents - they had no
systematic way of knowing, doing, or being to support the conceptual work needed to be
done (National Research Council, 2000).
This was both a lack of knowledge base as well as a lack of "seeing" or perceiving information the way the experts "see" information. More, they lacked the organizational structure centered on essential ideas or conceptual cores of knowledge so necessary to make meaning in the same ways that experts make meaning. The study of expertise emphatically speaks back to the broader teacher knowledge framework and, more indirectly, relates to the type of knowledge, specifically personal epistemologies and implicit theories, experts use when approaching a learning event. The characteristics of expertise expressed above are all concerned with knowledge use -- how knowledge works in funds to shape perceptions as well as how knowledge is organized around large core concepts in which to think in terms of applicable central principles as opposed to surface level facts or isolated pieces of information alone.

How, then, does expertise apply to personal epistemologies and implicit theories? In understanding how these work with teacher knowledge in terms of development, we must understand how teacher knowledge gets used and organized; from my observations, supplemented by critical research, part of the funds of knowledge expert teachers use is in part teacher knowledge, and all of the subsets of knowledge required for teacher knowledge. Part of the aforementioned teacher knowledge is the knowledge constructed from implicit theories about teaching and personal epistemologies about knowledge, the nature of knowledge, and the act of learning. These guiding theories and epistemologies work as a type of teacher knowledge, or at least function in the development of knowledge, as discussed below. For instance, from the definitions of implicit theories and personal epistemologies, we can determine that our prior theorizing plays a role in our approach to other learning events. This connects directly with experts' ability to recognize
meaningful pattern based on experiential, and most likely personal, knowledge. It logically follows that personal theorizing shapes the knowledge teachers construct about curriculum, instruction, and pedagogy. This knowledge, either influenced by or centered on implicit theorizing, is then organized in such a way that it further shapes perceptions and subsequent knowledge; however, I will explore this topic further in later sections.

I posit that central to understanding how expert teachers use teacher knowledge, furthering the development of teacher knowledge as a part of pedagogical experience, is understanding the nature and quality of the consciousness of competence; central to understanding teacher knowledge in application is analyzing the intentionality of the event or activity in relation to outcome. Part of the expert process is recognizing meaningful patterns; however, implicit in this argument is the idea that to be able to recognize meaningful patterns over time, error, or "wrongness," must have occurred in the process of development. As indicated by the research above, one does not start their academic enterprises as experts. Experts develop. Central to this idea of development is the recognition of competence, being able to critically determine competence and then attempting to apply this competence to multiple activities within a domain of thinking. The consciousness of competence is determined in levels, ranging from unconscious incompetence to unconscious super competence (according to my select literature on the levels of consciousness and competence.)

In this first level, the unconscious incompetence is characterized by underperforming without recognition of underperforming. In other words, one may make a mistake without the cognizance necessary to understand that he or she made a mistake. The subsequent level of consciousness is the conscious incompetence; the individual is
aware of the mistake or misconception but is unable to understand a solution. He or she is aware of the incompetence, but lack the tools or strategies to fully solve the problem.

After, the third level, is the conscious competence; the third level is concerned with understanding. He or she not only understands the competency, but they are aware of the competence required and understand how to approach a problem to determine a solution.

Following, the more or less beginning expert level of consciousness is the unconscious competence. This is characterized by high competence; however, less attention is focused on being conscious of "doing" the activity. Rather, the unconscious competent expert is focused less on cognizance; he or she is, rather, simply "doing" the activity. Finally, the final level, the most rare, is the unconscious supercompetence. This is characterized by "losing" the self in the activity. The literature describes musicians as such; they are so invested and involved in making something meaningful that they lose the cognizance of "doing," or even simply doing, and lose themselves within the activity (Howell, 1982).

METHODS

*If qualitative inquiry in education is about anything, it is about trying to understand what teachers and children do in the settings in which they work. To achieve this aim -- and there are other aims for qualitative inquiry that are equally important -- it is necessary to 'get in touch' with the schools and classrooms we care about, to see them, and to use what we see as sources for interpretation and appraisal.* (Eisner, 1991)

The following section details the employed methodologies used to forward and achieve the overarching goals of this thesis. Thus, we will explore various tenets of qualitative research inquiry and, also, how these methods of inquiry, methods of knowing, are utilized to contextualize various funds of teacher knowledge translated through lived experience.
Teacher Effectiveness

Prior to selecting my research participant, I needed to first select a framework by which to assess the effectiveness of the teacher -- as I wanted to acknowledge that my teacher was an "expert teacher," and thus, effective. I used a cross-comparison; thus, I engaged both Arends (2009) and Kaplan and Owings (2009) frameworks for effective teaching and found themes and trends consistent across both.

Arends (2009) first maintains that the definitions of effective teaching and, to a greater extent, the characteristics that contribute to effective teaching are contested spaces -- whereas we might have an idea of what effective teaching "looks" like, isolating individual characteristics and then determining which characteristics contribute in most meaningful ways varies across research lines. However, Arends asserts one central, overarching goal of effective teaching; Arends writes, "the ultimate purpose of teaching is to assist students to become independent and self-regulated learners" (Arends, 2009). This statement of purpose works as a guiding idea when considering the context of effective teaching as well as constructing a framework, as all components of such a framework will fall under this guiding idea and cumulatively work to accomplish this purpose. More specifically considering the characteristics of effective teaching, Arends sets up what one could argue are the necessary pre-requisites of effective teaching, implicitly identifying domains (further explanation of these domains implicit in this argument below in the "discussion" section) from which the researcher pulls specific characteristics.

Arends writes,

Effective teaching requires at baseline individuals who are academically able, who have command of the subject they are required to teach, and
who care about the well being of children and youth. It also requires individuals who can produce results, mainly those of student academic achievement and social learning. (Arends, 2009)

Further, in terms of Arends' proposed components, Arends maintains the aforementioned pre-requisites for effective teaching are incomplete without the proposed following five components of effective teaching: 1.) effective teachers have specific personal qualities that contribute and support development of relationships, 2.) they have a sense of social justice and seek to create democratic classrooms, 3.) effective teachers have positive attitudes about both learning and knowledge as well as about their own learning, 4.) teachers who are effective have a specific skill set, of which they have command and control, composed of strategies and practices for student success, and 5.) they are reflective practitioners (Arends, 2009).

Moving forward, Kaplan and Owings maintain that each teacher is a person, a person with individual characteristics and ways of being, doing, and knowing; however, Kaplan and Owings further maintain the following position regarding the personal characteristics of teaching: "personality" is difficult to shift, personal characteristics of teachers are of utmost importance, and "teaching is more than what you know and can do in the classroom. Who you are as a person greatly affects how you are as a teacher" (Kaplan & Owings, 2009).

The Kaplan literature constructs the following framework for effective teaching: 1.) effective teachers have great care for their students, 2.) there is a degree of fairness and respect in an effective teacher's classroom, 3.) they will show interest in the lives, both academic and personal, of their students, 4.) effective teachers model and encourage enthusiasm for learning, 5.) they have positive associations and attitudes with learning as
a construction/activity as well as towards their learning, keeping the identity of life-long learner, and 6.) they are reflective (Kaplan & Owings, 2009). Moreover, unique to the Kaplan and Owings frame is that it touches most directly on the notion of personal characteristics of effective teachers -- teachers as relating, reacting, and responding to the needs of other humans, which becomes very important in aligning the various relational components of the frameworks. Note that how a teacher teaches content or other knowledge bases, such as teacher-specific skill sets in relation to instruction, are perhaps implicit or assumed while the framework most directly, and explicitly, maintains a relational dynamic or dimension.

In terms of alignment, the literature seems to agree, either explicitly or implicitly, on four, or more, components or dimensions of effective teaching. While perhaps surrounded by different language, conceptually, again either implicitly or explicitly, these dimensions are expressed or assumed across research lines and by many researchers.

These include, but are not limited to: 1.) Effective teachers build genuine, appropriate, and authentic professional and student relationships. Particularly in Owings (2009) and Arends (2009) is the notion of the value and importance of relationships in maintaining effectiveness in teaching. For Arends (2009), it is the primary quality discussed in the text; it is important for effective teachers to "possess sufficient interpersonal and group skills to establish authentic relationships" (Arends, 2009). Also noted explicitly, "establishing authentic relationships with students is a pre-requisite to everything else in teaching" (Arends, 2009). Further, Kaplan and Owings (2009) devotes the vast majority of thought space within the framework to how relationships work to support effective teaching, noting that the relationships are the crux of teaching and
learning. Kaplan and Owings (2009) maintain that being able to relate in positive ways as well as attending to students' needs supports all other facets of teaching (Owings, 2009).

Moreover, respect seems to be the predicate on which other frameworks are built. Without this notion of social justice and respect for all students, the relationship components mentioned above cannot function effectively in the learning space. Respect for students and colleagues, fairness for students and colleagues, results not only in social justice in the classroom, but it supports the other dimensions of effective teaching by creating a fair and just learning environment in which all student learning is fostered and nurtured, supported and scaffolded, and ultimately transferred and extended.

3.) Effective teachers have positive attitudes towards learning, have strong/deep knowledge bases, and promote meaningful student learning (Arends, 2009; Kaplan & Owings, 2009). The knowledge component of effective teaching aligns itself in all of the frameworks explicitly. In keeping with Arends' notion of the purpose of teaching, mentioned above, this component is decidedly crucial in order to promote independent, self-regulated learners, capable of critical, analytical thinking that has been supported and nurtured through authentic learning experiences. However, this dimension incorporates and integrates a very diverse set of competencies, components and sub-dimensions. Notably, it touches on affective characteristics regarding learning -- the attitudes of teachers and students about learning and knowledge more generally as well as in the context of identity and the self, how students and teachers feel regarding their own learning (Arends, 2009; Kaplan & Owings, 2009).

Also embedded in this aligned component is the notion of teacher knowledge, or the knowledge base from which teachers draw to support student learning that is teacher-
specific; this can include instructional practices, learning theory, instructional practices relating specifically to context, or pedagogical context knowledge, and the other repertoire of teaching strategies used in this context. This is vitally important, as several of the frameworks note the poignancy of teacher knowledge and skills, the base or repertoire of teacher-specific knowledge, practices, and strategies. Without this component, teacher-specific knowledge, learning is not fully supported. In addition to teacher knowledge, student learning is, of course, at the heart of the learning experience.

Effective teaching is predicated on the notion of meaningful student learning. This component most directly influences efficacy of the purpose Arends (2009) identifies as the purpose of teaching and learning within a school context. Effective teachers engage in critical, reflective practice. Reflection also permeates the frameworks, either implicitly or explicitly. The majority of the frames include reflection as standard and effective practice (Arends, 2009; Kaplan & Owings, 2009). In tandem with other components, reflection is necessary and crucial, as reflection provides entry points for critical analysis of our own teaching, allowing not only more control of our learning as teachers, but also a more meaningful perspective of our teaching.

Thus, my participant must first and foremost fit within the proposed frameworks for effective teaching; this is a decidedly rhetorical move, as ineffective teachers also maintain some measure of teacher knowledge -- however, the ethos of an effective teacher proves much stronger and much more positively within this discussion.

**Research Questions**

We can organize my inquiries based on my three broad research questions:
1.) What knowledge funds are accessed in practice, and how are these funds related?
2.) In what ways do high school English teachers apply pedagogical content knowledge in their classrooms and practice?
3.) How do these teachers describe their approaches to teaching for content knowledge?

The purpose of this study was to access and analyze funds of teacher knowledge in context; thus, I ask questions whose answers provide meaningful insight into the overarching questions posed in the "Introduction" section of this thesis, notably, how do teachers use teacher knowledge as they make pedagogical decisions? The former three questions, then, act as a guide by which to navigate the landscapes my participant describes and then make meaning from this pedagogical, epistemological, and, ultimately, ontological landscape.

Thus, my anticipation is that my participant will in some way address one or more of the funds of knowledge addressed in the literature review; although the literature used is highly selected and representative of a broader discourse, I have provided a thorough preview of the conceptual frameworks supporting the discussion. The ultimate goal of my thesis, and, thus, for the aforementioned questions is to contextualize, isolate, select, and analyze these funds of knowledge, or, the collective "fields, systems, and funds," as they are translated into pedagogical practice and embodied through lived experience.

**Participant**

One participant was voluntarily selected through purposive sampling, described below at greater length; recruitment began in December 2014 at the end of the fall
semester; the participant was invited to the study via email correspondence. My
participant, from henceforth referred to as "A.P.," is a forty-year-old African American
woman from the southern regions of the United States, notably, "Southern Louisiana."
A.P. is from a middle class background and socioeconomic status. She attended a
historically black college (HBC), where she earned an undergraduate degree in English;
she then pursued graduate level work in English at a nationally recognized state
institution outside of her region of origin. A.P. is a legacy educator, meaning that one or
more of her family of origin was/were employed in a school district in a teaching or
administrative capacity. She has been teaching for thirteen years; she is alternatively
certified, one of the impetuses for my interest in her as a participant. Also, as described
above, she was asked to participate due to a history of effective teaching -- which I will
discuss further below.

Setting

The setting for this study took place at an urban, Title 1 high school located in and
around Central/North Texas; the school is a public institution and is part of an
independent school district. The school is positioned in an intersection between suburban,
rural and urban contexts; thus, the school's student population is of an even representation
of various demographic and social identities -- racial heritage, socioeconomic status,
ethnicity, ability, etc. The institution can best be described as a multicultural, although
debatably culturally pluralistic, and culturally sensitive learning environment. There are
approximately 1,500 students in the student population. Specifically, this study took place
in an English/Language Arts classroom. A.P. teaches two separate grade levels; all of her
classes are identified as "on-level" -- i.e. she has no advanced, honors, AP, or IB courses.
**Purposive Sampling**

The participant, A.P., was selected based on prior experience with her teaching and in her classroom. As an undergraduate student, I had previously identified her as an exceptional teacher, and correctly identified her teaching as effective -- based on the above framework for effective teaching. Thus, as my interest in teacher knowledge and decision making developed, I decided to analyze her exceptional teaching further to contextualize, identify, select, and analyze her funds of teaching knowledge. In addition, I employed prolonged engagement and observation from a very intimate vantage point, as she was my cooperating teacher during my clinical/student teaching experience; during this time, I had unfiltered access to her pedagogical events, lesson plans, strategies, understandings, attitudes, beliefs, and performance. It is through these observations that I collected follow-up data -- as described below.

**Procedure**

The following subsections describe the various procedural components of the present study:

**Data Sources**

Data collection came from one intensive, transcribed semi-structured interview with A.P. as well as an approximate two month span of persistent observation, lesson plan analysis, and informal teaching reflections. The majority of the data presented in this study originates from the semi-structured interview; the subsequent data sources act as a model by which her interview responses are situated, contextualized, and affirmed. In the continuation of this study, A.P. will be interviewed at least once more in a proposed longitudinal study in which I will mark for changes in attitudes, beliefs, experiences, etc.
Carspecken's critical epistemology guided my interview protocol -- (See Appendix A) which will be discussed in greater detail in the subsequent sections -- notably the use of covert categories (Carspecken, 1996).

**Data Analysis**

In terms of analysis, I used aspects of Carspecken's (1996) critical epistemology as a guiding framework. Note, however, that only aspects and certain procedures of this critical epistemology were used; the more advanced components were omitted from my data analysis. Carspecken (1996) utilizes several rigorous validity checks (Esping, 2008) that I employed and applied to my study; notably, these are the assignment of meaning fields, low-, middle-, or high-inference depending on the nuances requisite of the situation and the context of the study (Carspecken, 1996).

For this study, I utilized both low- and high-inference meaning fields. Thus, the low-level codes invoked low-inference meaning fields -- i.e. outcomes aligned closely to the original transcript and interview; the high-level codes follow the pattern and invoke high-inference meaning fields -- i.e. outcomes aligned closely with numerous and multiple possible meanings and interpretive claims of the data (Carspecken, 1996). The data were analyzed based on Carspecken's (1996) notions of meaning fields, first in terms of low-level and high-level coding and the application of said meaning fields.

For the pursuit and successful completion of the aforementioned purpose and goals, I coded the most relevant aspects of the interview into low-level and high-level codes. However, the entirety of the interview may be examined for research consumers (see Appendix B, the full-text transcription). In addition, persistent observation, systematic lesson plan analysis, and direct teacher reflections were analyzed as means to
support data collected from the interview -- as a means to affirm the data as authentic practices translated through lived experience.

**Credibility/Validity**

The following subsections detail any and all validity checks to ensure credibility and truthfulness in the present study:

**Direct Quotations**

The first measure of validity, or validity check, is the use of direct quotations from my interview with my participant. Thus, research interpretation is made transparent with the inclusion of the transcript and both low-level and high-level codes -- see Appendix C. While the interpretation of the data is left open, the inclusion of direct quotes in the "Findings" section as well as the submission of all available data and materials acts both first as a validity check and second as researcher accountability -- that I did in fact maintain the integrity of my participant through my interpretations and low-/high-level coding.

**Peer Debriefing**

In addition, I utilized extensive peer debriefing. In the data analysis process, I marshaled the help of a young scholar, much like myself, to subsequently check the validity of my findings. My peer provided feedback that then helped me refine my process and my understanding of the data. It was from this interaction that I was able to apply correct meaning fields and interpretations of the data.

**Member Checking**

Further, A.P. was asked to subsequently review the materials as a means to ensure accurate representation of her person and as a teacher. She was then asked to provide any
additional information or make any measure of revision based on her perception of events and of the interview. She did not feel as if she had been misrepresented, nor did she clarify or make moves to amend her representation in the interview. Note, the participant felt mildly insecure about the vernacular used and her stylistic language choices; however, after consideration, and conversation, she permitted the use of these choices -- as to preserve the integrity of her representation. No further changes were necessary, and I was permitted to use the materials provided by the participant.

**Limitations**

As with any study, even with the relatively limited scope of the present thesis, limitations are constraints and, thus, must be explicated. The first limitation includes the singularity and ethos of the study and the researcher -- this is one single study conducted by an undergraduate honors student, toward the completion of honors requirements, with no formal research methodological coursework or intensive formal training in such methodology. While the supervising professor has been extraordinarily helpful and knowledgeable, beyond the duties of her position, the benefits of formal coursework and experience with educational research methodologies, and the lack thereof in the present study, may be somewhat palpable. And while this is an aspect of this thesis that cannot be escaped -- a constraint, perhaps -- it also acts as a relative limitation and should therefore be documented as such.

Additionally, only one participant was interviewed. While this was conscious and intentionally pursued prior to the study, more voices offering varied and diverse perspectives would only enhance the findings. However, due to the scope and purpose of this thesis, I maintain that only one participant was sufficient; although, with only one
participant in the case study, the enumerated experiences can be honored without
generalization -- i.e. one perspective cannot become a generalizable truth for all and
every teacher; she cannot be the arbiter or adjudicator of truth for every teaching
experience. Further, while her relative lack of formal teacher training, as she was
alternatively certified, was an incentive for her participation in this case study, from the
standpoint of the researcher, this limited perspective may cast doubt to conclusions. For
the sake of balance, a comparative examination of both a traditionally certified teacher
and an alternatively certified teacher would perhaps provide a richer understanding.

Due to the nature of the findings, in so far that they are self-reported, they are
limited to epistemological standpoint; additionally, due to such a limitation, the
generalizability is further complicated. For instance, the study was conducted in a very
specific setting that may or may not reflect a authentically representative setting; this
very specific setting may not even generalize to other similar institutions, as it is by most
accounts an intersection of rural, urban, and suburban with an overarching urban identity
-- rather than an urban context proper. My research participant identifies as female, but
notably an African American woman -- even more specifically, a southern African
American woman. Thus, these concurrently intersecting and divergent lenses influence
her experiences.

To maintain the integrity of intersectionality, we cannot parse out these individual
levels of identity; her experiences, then, are specific to this complex identity and
therefore not generalizable. This pattern holds true for the remainder of her demographic
and background information. The issues of identity and limited epistemological
standpoints create the conditions for a major limitation if one were to generalize these
findings; in addition to the single study of one participant with self-reported findings, generalizability is compromised by the standpoint from which the research participant observes her world. Note, however, that the purpose of this study is not to generalize necessarily, but rather to contextualize funds of knowledge translated through lived experience.

There is also no mechanism for adjudicating the role of negative bias regarding formal training. Further, we are left unaware of the effects of such negative bias against both formal training and in-service staff development on findings -- nor do we have privileged information about private beliefs, or, rather, the intimate details, prior experiences and prior conceptions of formal training during A.P.'s certification process. From her interview, we know her initial thoughts, feels, beliefs, etc.; however, we do not have access to the nuances of such beliefs and experiences, specific experiences, and the attitudes and biases prior to such training.

**FINDINGS**

*It might come from my educational background, it may come from my mother, it might be innate, um, but I think that perhaps a good 30% comes from my educational background, 40% comes form my own experience, the other 30% comes from what I picked up on the way: my unofficial mentors, my colleagues, stuff I have read, lesson planning, things that I have incorporated into my own thing. (A1.9)*

The findings suggest that early experiences with teachers, and the persistent observation such experiences entail, prove very influential in the participant's present pedagogical practices. She maintains that she utilizes strategies, either procedural or relational, she observed her teachers employing. For instance, A.P. Notes:

*My primary teachers were very significant, um, I was a quiet and shy child, and sometimes, they were they only people I could talk to, so, I*
think that probably my own prowess, or, I don't know what the word is, my ability to be able to listen to and talk to children probably stems from that. The knowledge that sometimes the only person a kid can talk to is the teacher, because she is close enough, but objective enough, and, kind of has to listen, but is supposed to listen. So, I always had very positive relationships with teachers. (A1.3)

And,

I kind of pattern myself after [my high school English teacher] in some respects, like whereas she might review in the beginning of class, it was a lot of verbal exchanges, but even the way she would dictate notes, the ways she gave tests, some of her nuances I believe I have incorporated into my classroom. (A1.3)

A.P. contends that, in terms of her present procedures and pedagogical strategies, she still uses her "old notes from high school" (A1.4) and that while her private school experiences did not train her, more broadly, for work in urban public schools, she states,

I brought with me was my knowledge of English which was shaped in part by my love of English, but also in part by how it was cultivated by those English teachers that I had, who I learned, I learned something from each one. (A1.4)

Thus, these findings suggest that background experiences, using her own teachers as a form, template, or model, particularly teachers with whom she had a special relationship (A1.3), proved to be helpful for her moving forward in her own pedagogical events and current practice. Further, this contextualizes and affirms Lortie's (1975) apprenticeship of observation; thus, it becomes evident that this type of cognitive apprenticeship plays a role in shaping teacher knowledge -- or knowledge about teaching -- and remains consistent with the literature described above of autobiographical influences.

In addition, A.P. disregards any formal training she did have; rather, she dismisses the notion that any part of such training was worthwhile or valuable to her current
practice. While she had "formal training" in the context of alternative certification, she
does not recognize this training as significant or worthwhile -- that actually, she does not
see value in such training, at least for her teaching (A1.5). Any and all formal training
was relegated to her certification process, which was reduced compared to more
traditional preservice teacher programs. When invited to give candid opinions of such
formal training, she responded:

I think it is beautiful in its intent, but poor in its execution; many of these
kids come in with this Utopian, idealistic idea of how a classroom should
be run, will happen, how the kids are going to react, they are going to love
everything you place in front of them, they are going to be in good moods
everyday, they are going to bring you an apple, and we are going to skip
through the lessons, they all read and write well, and then, many of them,
have their hopes and dreams dashed after time when they realize that you
are working with these little creatures who feel one way one day, and then
feel the complete opposite way the next day with no rhyme or reason, but
you still have to make them do something. (A1.5)

Further, she shares this similar sentiment about formal training as it manifests
itself through in-service staff development. She describes this training as, in her opinion,
"weak and pointless" (A1.6) She contends,

I've had maybe five in-service sessions out of however many we've had to
have over the course of thirteen years that I would say have benefitted me
in some way, and that even includes the ones I taught as the lead content
teacher; they are pointless. (A1.6)

However, she does not regard in-service training as generally worthless; rather, she has
attempted several strategies and incorporated them as she saw fit:

Like if it were some kind of educational strategy, like for instance, let's
use, like "Get the Gist" or the "KWL chart," I would try that might work
that day for that group of kids, but the next year when I tried it, they stared
at me like I was stupid. It just depends on the day, the year, the hour or the
topic. So sometimes, it just didn’t work; and if it didn't work every time I
tried to use it, I threw it out. (A1.6)
Thus, she maintained an openness to new procedures or strategies; while this seems consistently true across the interview, she noted that she often disregards these funds of knowledge -- as they often, for her practice, are less effective to some measure.

Throughout our interview, A.P. stressed the importance of mentorship -- perhaps even above the role of apprenticeship. This form of interaction with practicing teachers during one's own practice builds community and thus creates a fund of knowledge from that community. Also, individual mentorship provides a valuable and worthwhile source of knowledge. For instance, A.P. notes:

I am not too proud to admit when I don't know something, so I will read up about it, or I will ask a colleague: well, how did you do this? For instance, this year, I haven't taught tenth grade in about eight years, and now there is a new test that I am not familiar with, so I relied heavily on my colleagues to kind of help me limp along a bit until I got to my own knowledge base. How do you write a paper? Well, that doesn't change based, and I don't care what test you are taking, SAT, STAAR, TAKS, TAAS, whatever the hell they want to throw at us in the next five years, how you write an essay does not change, and, especially how you help a struggling writer does not change -- so once I figures that out, what do they, and by "they" I mean the education gods concerned with STAAR, want and how do I help these children from [researcher omission] write this essay? (A1.8)

And also,

But, again, I asked the teachers who had done this already: what did y'all do? Then I made it fit, let me come up with my own ideas based on what I have heard or read, let me study the test, let me look at the types of questions they ask, and this year, let me pay attention to the training at in-service to see what they want. (A1.8)

However, mentorship goes beyond peer and community resources. Mentorship from a more competent source, such as a mentor teacher, shapes A.P.'s practice in ways very similar to her prior teacher experiences. In terms of mentorship in this capacity,

I didn't know what the hell I was doing when I first started teaching. I didn't know how to plan a lesson until halfway through my second year
teaching. My mentor was supposed to be my department chair, but that bitch didn't give two fucks what I did or didn't do as long as there was a warm body in the classes. (A1.8)

Although she had a negative experience with one mentor, this does not prove that mentorship exists only in this very specific model of mentor-as-assignment, as she describes previously; rather, A.P. had several positive mentor relationships, such as the following description of one of her most influential mentors:

An older black woman . . . who, if you think of a cookie cutter English teacher, she's it. She said: oh no, no, no, dear, you need a lesson plan. What are you doing? What? What do you mean you just go in there and try to figure it out? No ma'am, that will not work. And then I burst into tears again. Thanks. But no, she taught me how to write a plan, how to have a plan, and how to put it into action; um, you can have all this knowledge, but if you cannot sell it, it doesn't matter. (A1.12)

Thus, these two experience become crucial in shaping how A.P. conceptualizes both the need for effective mentorship as well as mentorship as a source and fund of knowledge. In this respect, she continues such mentorship, acting herself as a fund of knowledge:

I have been a mentor for many, and I have had all of those teachers tell me they were glad I was their mentor. When I became one, I decided to be a better mentor than the one I was supposed to have when I first started teaching; my [real] mentor was a science teacher; my mentor was the assistant principal who say me crying and came to help; my mentor was another English teacher who was not assigned to me, but took me aside and said: Sister, this is not going to work. (A1.12)

In terms of "knowing" more specifically, A.P. also maintains that implicit knowledge, or knowledge constructed without direct links to an external source, plays an important role in her practice.

She notes:

I also knew that kids were supposed to sit down and be quiet in the classroom, so behavior was number one; if I could get you to sit down and
shut up and listen to what I am saying, that's half the battle; and nobody told me that, that is just something I knew... (A1.6)

And further, she describes this implicit way of knowing using the language of implicit knowledge -- or, rather, "just by simply knowing," often relationally:

It's just some shit I know: how to talk to a kid, how to get a kid to feel like you give a shit whether they live or die; that's not something I can teach you; you feel the way you feel. Or how to develop a relationship with children: It's about relationship building. I can teach them anything if they think I care about them. (A1.13)

Rather than tracing her funds of knowledge to externalized, formal sources, such as formal training funds or funds from continued development, her process for knowing is much more personally constructed -- for it is "shit she just knows" (A1.7).

Finally, her funds of sociocultural knowledge shape her teaching in ways that supports overall teacher efficacy. She has a way to interact with students beyond building relationships for classroom management purposes. For instance,

I am influenced by my environment and by pop culture and by what they know. So that has to change as they change. So, I am not this static, stoic person that doesn't ever change; because I have to change as the generations change. So what I said ten years ago does not apply now. (A1.13)

How does, then, this knowledge of pop culture and context affect her teaching? How does this rich fund of knowledge, knowledge of her student's sociocultural landscape, their social and cultural identities, support her overall, teacher knowledge? She provides the following example:

Now, you don't have to be as well versed in pop culture as I am to get them to listen; but, I need to be able to say: ok, this group of kids doesn't like Frankenstein. I am going to have to come up with something else. Five years ago I could teach that text. I cannot teach it today. What else am I going to do? I can teach Beowulf every year because they like it. I can't teach Canterbury Tales anymore because they don't get it. And I don't have the time to help them to get it. So what can I do more
effectively instead? We are going to skip that and move to something else, maybe Sir Gawain and the Green Knight, let's try that this year. Nope, they didn't like that. So let's move on to something else. Let's go back to Beowulf. (A1.13)

She demonstrates that understanding the context of her students, effectively responding the shifting trends and patterns of the larger and broader sociocultural landscape then gives her insight into how to teach, and respond to her students, in ways most effective for her learning community. In this way, it seems as if this fund of knowledge is even more reciprocal than the others mentioned here -- A.P. largely develops this fund through her interactions, relationships, and understanding of her students' current context. Also, A.P. is effectively able to code switch -- in the broadest sense of that term -- between academic ways of being and more accessible ways of being. She switches between these identities not as a way to simplify, but as a way to amplify -- to support burgeoning schema and content knowledge development (A1.15).

From her experiences, she notes:

But, as I was saying, you have to know where they are, what is their context? What is going on in their lives? What are they hearing? What are they seeing? What does "on fleek" mean? "Ms., your hair is on fleek." Now you can be an old white lady and not know what that means. And they might not care that you know what it means, but it helps that you do and why they write the way that they write. I mean, the slang. They could be calling you a bitch and you have no idea. (A1.15)

She uses her knowledge of shifting sociocultural landscapes, in this case, specifically, the use of slang, as a way to first communicate with her students, but also as a means to effectively teach. Her successful use of this knowledge appears to build solidarity as well as act as a pedagogical tool -- specifically in terms of slang, using this socioculturally specific lexical unit as a tool to evaluate the roots of writing issues.
DISCUSSION

I forgot about my senior English teacher [...] She and I recently became "Facebook" friends, and I told her I was an English teacher [...] she was stunned. She asked: Why? -- which is what I always ask student teachers or teachers who are interns who observe me: Are you sure you want to do this? And then when I told her I was an English teacher, that didn't surprise her. She knew I had a passion for English and she said: you always were a really good student, and you were so good in my class; I told her some of the things I experienced, and she was like: Yeah, I guess you were meant to do that. (A1.4)

Throughout systematic study, it becomes apparent that apprenticeship of observation and implicit knowledge play significant roles in shaping teaching practice and funds of teacher knowledge while formal training and structured continued development play a lesser role in developing teacher knowledge for this participant – however, this may be as a result of negative perception, ineffective teacher training, or an issue with teacher training in the aggregate. Regardless, it brings into focus the criticisms of formal teacher training mentioned in the literature review of this thesis.

These become poignant questions as we move forward in our understanding of teacher knowledge. Whereas such a solution to this timely issue is not accessible as of yet, such studies as the present allows for the contextualization of teacher knowledge -- and acts as a form of pedagogy mapping by which to adjudicate the landscape of teacher training and education by contributing meaningfully to the conversation at large. The above culminates in a cliché: experience is the best teacher. And although a cliché, perhaps it is time for the teaching, research, policy and scholarly communities to begin considering mediation -- thus, we must consider how we authentically reflect, and mediate, the prior experiences and the authentic classroom experiences discovered
through meaningful engagement and observation in the research, in the literature, and in our formal teacher training and teacher preparation coursework.

Various sources contribute to the vast funds of knowledge we can identify as teacher knowledge; for A.P. the most important sources are as follows: apprenticeship, “menteeship,” mentorship, learning/teaching communities, and current cultural contexts and expressions. Again, these are funds of knowledge fostered and nurtured by practical experience and authentic relationships rather than formal training. Whereas I maintain a place for formal training, we must also account for authentic experience in authentic ways -- rather than account for these relationships superficially, as is a common practice, some of which is described in the literature posed above.

Further, knowledge of sociocultural contexts and an intimate awareness of present cultural landscapes underpins effective teaching, acting as itself a fund of knowledge; thus, this fund of knowledge, which is a shared fund between teacher and student, presents a foundation by which pedagogy rests – as this knowledge builds solidarity, shapes perception of teacher-as-partner and cultural participant, and supports identification. This is another component we must consider as we move forward and continue to propel the goals of teacher preparation and education. This research suggests that incorporation of curriculum that reflects the critical understanding of various social contexts is imperative in developing rich funds of teacher knowledge -- which, ultimately, underpin and support effective teacher and learning.
APPENDIX A

Sample Interview Protocol

INTERVIEW PROTOCOL

Interviewee: A.P.
Interview Date: 1/2/2015
Interviewer: Jonathan Turner

CONTEXT NOTES
This interview took place at a Fort Worth ISD high school near Benbrook, TX on 2 April 2015 after three months of observation and interaction. As such, my interactions with the participant have been daily -- in both professional and semi-professional contexts. Notably, interactions center on lesson planning and design. Secondary to this function, our interactions are advisory in nature, as she acts as a teaching model/cooperative teacher.

TOPIC DOMAIN 1: DEMOGRAPHIC INFORMATION
1. As we have discussed in previous interactions, from what geographic region were you born/raised?
2. Describe your social identity:
   a. How do you identify in terms of racial heritage or racial identity?
   b. How do you describe your gender identity or gender presentation?
   c. How do you describe or define your sexual assignment?
   d. How do you describe or define your religious affiliation/orientation, spirituality, and/or religiosity?
   e. How would you describe your placement in your current social context?
3. Are there any other teachers in your family?
4. Please describe your schooling from your earliest recognition until you began your teaching practice:
   a. What level of education did you reach?
   b. Do you remember your high school and college GPA's?
   c. What was your major in college, and do you have any advanced degrees? What did you do prior to teaching?
   d. What were your original educational goals?
5. Please describe your current position within your institution:
   a. What positions do you hold?

[covert category: teaching shaped by family, religious community, cultural identification, or early experiences, experience with teachers in the family, demographic information shaping identity, racial identity and heritage, cultural heritage of teaching and/or teaching-like roles]
INTERSECTING KNOWLEDGE FIELDS

TOPIC DOMAIN 2: PRIOR EXPERIENCES WITH TEACHERS
6. I'd like to ask you about your experiences with teachers during your formative primary and secondary school years:
   a. What were your attitudes about each successive level of school?
   b. Beyond your attitudes about school, what were your attitudes about teachers? -- the role, not individual teachers
7. Tell me about your favorite teacher.
   a. What was special about that teacher?
   b. How did you build this relationship?
8. On the other hand, is there one teacher that comes to mind with whom you had a particularly poor relationship?
   a. What factors or variables played into your negative experience?
9. Do you think that these experiences shaped your teaching in any way, positive or negative?
10. In what ways were these teachers knowledgeable?
[covert category: apprenticeship of observation, attitudes about learning and knowledge, relationships with teachers, teacher modeling]

TOPIC DOMAIN 3: FORMAL TRAINING
11. Describe your formal teacher training
    a. From where do you think you received the most formal teacher training?
    b. Describe from where you believe you receive most of your teacher training
12. What are your attitudes about formal teacher training?
    a. What are your thoughts on alternative certification?
13. What "knowledge" do you think you "picked up" in teaching/pedagogy classes?
14. Describe or detail your experience with in-service teacher support.
    a. In your opinion, describe your beliefs regarding effectiveness of such training.
    b. Can you tell me more about in-service
    c. How has in-service teacher training helped you in your practice?
[covert category: formal teacher training; the role of formal teaching/pedagogy courses in shaping knowledge, teachers interacting and sharing community, open-sourced funds of knowledge;]

TOPIC DOMAIN FOUR: IMPLICIT KNOWLEDGE/THEORIES
15. Do you ever "just know" what to do without having to have formally know what to do prior?
    a. Describe any teaching knowledge that you believe to have "just known" or that "just made sense."
    b. How do you explain these moments?
16. Have you had any experience in which someone validated some sort of personal theory you had about learning or teaching?
   a. How do you describe this validation?
   b. How do you explain this awareness from your own theorizing?
17. Describe your process for personal theorizing, pedagogical development, experimentation, and evaluation when your knowledge is by all accounts implicit.
18. After hypothesizing/planning based on perceived implicit knowledge, has there ever been a time when you retroactively or reflectively discovered this teacher knowledge of which you employed came from one singular source?
   a. Or, describe your process for "knowing."

[covert category: teacher knowledge implicit or from implicit/personal theorizing]

**TOPIC DOMAIN FIVE: EXPERTISE AND COMPETENCY**

19. Do you consider yourself an "expert teacher?"
   a. What does the term "expert teacher" mean to you?
   b. Have you witnessed expert teachers?
20. How do you describe your process for cognitively organizing what you have learned?
   a. That is, describe what you do with your new observations about teaching content.
   b. Describe how you learn from this experience, to the best of abilities.
   c. How do your perceptions of a teaching event affect how you think about your teaching?
21. How do you describe your ability to recognize meaningful patterns of information as a teacher?
22. Describe the differences you've noticed in accessing and organizing information/experiences about teaching, planning lessons, assessing learning, sequencing lessons, and any other form of teacher knowledge between your early years teaching and your current teaching practice.

[covert category: cognitive construction of knowledge; expert teacher's ability to effectively organize knowledge]

**TOPIC DOMAIN SIX: TEACHER KNOWLEDGE & PEDAGOGICAL CONTENT KNOWLEDGE**

23. Describe your thoughts on the notion of "teacher knowledge."
   a. What do you believe is teacher knowledge?
   b. How does teacher knowledge shape your practice as a teacher?
   c. How does teacher knowledge affect the advice or mentorship you provide to younger teachers?
24. Do you believe that there is an overlay between "pedagogical knowledge" and "content knowledge?"
a. Describe this overlay (or, describe how you negotiate the differences between pedagogical knowledge and content knowledge.)

25. Describe your experiences with learning to teach English through various strategies and theories.

[covert category: origin of pedagogical content knowledge; the ways experience underscores PCK]

**TOPIC DOMAIN SEVEN: FINAL THOUGHTS ABOUT KNOWLEDGE**

26. From where do you believe you "get" most of knowledge?
   a. Describe the places/people/experience that you feel have shaped your knowledge most as a teacher.
   b. Although experience and experimentation may guide your decision making for future learning and teaching events, from what knowledge do you originate your teaching practices?

27. Describe how you effectively teach content knowledge through your knowledge of how to teach English, or pedagogical content knowledge (PCK).

28. Describe your reaction to the notion of "funds" of knowledge.
   a. Define your own notion of funds of knowledge.
   b. Describe your beliefs about such funds.

29. What are your attitudes about knowledge in the context of teacher knowledge and the various places, situations, experiences, and contexts in which we construct knowledge?

**TOPIC DOMAIN EIGHT: CONCLUSION**

30. Is there anything that you wished I had asked you?
APPENDIX B

Low-Level Codes

A.P. LOW-LEVEL CODES: INTERVIEW 1 OF 1

Early experiences, apprenticeship, effects of prior teachers:
Teachers from her background play role in current practice: "repeats patterns"
  "My primary teachers were very significant" A1.3
  "I think that probably my own prowess, or, I don't know what the word is, my ability to be able to listen to and talk to children probably stems from that" A1.3
  "So, I always had very positive relationships with teachers." A1.3
  "...and I kind of pattern myself after her in some respects, like whereas she might review in the beginning of class, it was a lot of verbal exchanges, but even the way she would dictate notes, the ways she gave tests, some of her nuances I believe I have incorporated into my classroom" A1.3
  "But, I actually have used some of my notes from high school to help formulate some of my notes, because I was in honors English classes, and those classes in the Catholic school setting were equivalent to today's AP classes" A1.4
  "They seemed to know about how to relate to children" A1.4
  Although maintains that her private school experience did not transfer to public school practice: "The only thing I brought with me was my knowledge of English which was shaped in part by my love of English, but also in part by how it was cultivated by those English teachers that I had, who I learned, I learned something from each one..." A1.4
  "I relied heavily on: ok, what did my high school teachers give me that I can give to them? That was just pure logic to me. Ok, they don't get that, and as the years go on, how can I make them understand this?" A1.7

Attitudes about formal training, in-service, and teacher prep:
  Had limited preservice teacher training: Um, I was alternatively certified, because I said hey, I'll be a teacher, and that was about all that I had; I did have to take some quote/unquote let's call them certification processes, and that's what I needed to be certified in Carolina; so, maybe two or three classes I attended that I would call education-based classes, but it wasn't anything significant" A1.5
  "But I couldn't even tell you what I learned from those classes, I have no idea. Um, I was thrown in. The only prep I had was a sub, a long-term sub, that was my only experience. That was it..." A1.5.
  Has negative attitudes about teacher prep programs: "I think it is beautiful in its intent, but poor in its execution; many of these kids come in with this Utopian, idealistic idea of how a classroom should be run, will happen, how the kids are going to react, they are going to love everything you place in front of them, they are going to be in good moods everyday, they are going to bring you an apple, and we are going to skip through the lessons, they all read and write well, and then, many of them, have their hopes and dreams dashed after time when they realize that you are working with these
little creatures who feel one way one day, and then feel the complete opposite way the next day with no rhyme or reason, but you still have to make them do something." A1.5

Picked up no knowledge from in-service training A1.5

They were: "Weak and pointless. I've had maybe five in-service sessions out of however many we've had to have over the course of thirteen years that I would say have benefitted me in some way, and that even includes the ones I taught as the lead content teacher; they are pointless" A1.6

Might try something from in-service, but rarely worked or kept A1.6

Clarified: It worked for me, um, in whatever I was trying to use. Like if it were some kind of educational strategy, like for instance, let's use, like "Get the Gist" or the "KWL chart." I would try that might work that day for that group of kids, but the next year when I tried it, they stared at me like I was stupid. It just depends on the day, the year, the hour or the topic. So sometimes, it just didn’t work; and if it didn't work every time I tried to use it, I threw it out." A1.6

One notable exception: This year has been the only year that training has been helpful for me as far as STAAR is concerned; just simply listening, and learning, and reading is all I need to do for me. And then, I know it wasn't perfect this year, and prayerfully some of them passed, and I will do better next year, because I know I will be teaching tenth grade, because he already told me I was." A1.8

The role of formal training in actual practice: "...because the teaching program might teach you well; I have heard teachers say that either their teacher program at the college of alternative certification programs helped them in some way; more often than not, it doesn't." A1.12

"You don't get prepared for the classroom by sitting in a classroom reading a book; you get prepared for the classroom by standing in front of children trying to teach them something and feel the push back or resistance or apathy; books don't tell you that. Harry Wong is a bunch of shit. Somebody gave me that book the third day of school and I threw it in the corner, because I said: This is some bullshit. I don't know what to do with this. It made me feel even worse. I would never tell a new teacher that...it made me feel worse. I might as well quite today, because I haven't done any of this shit and now it's too late. It's the tenth day of school" A1.12

What she knew, what she knew implicitly, and what she didn't -- but found out:

"I also knew that kids were supposed to sit down and be quiet in the classroom, so behavior was number 1; if I could get you to sit down and shut up and listen to what I am saying, that's half the battle; and nobody told me that, that is just something I knew..." A1.6

What she had to find out for herself: No one taught me how to do that; people say that you can be taught how to make kids behave, but I don't know. I almost want to say that it's something innate, that you might get better at it, and, you know, hell, there are some kids you just cannot control, and that has nothing to do with you personally, but I think you can get better at it. Some people are just naturally gifted givers of information A1.7

Most of her knowledge seems to come about by classroom management experiences. A1.7
About why she knew what she knew: "I have been able to figure that out, even, as you said, without any formal training, because I did not major in education -- it's just . . . shit I know how to do."

"And I had to create the curriculum for that. So I was swimming upstream for the first three years of my career. Two years in North Carolina. In Louisiana, I had English III, Yearbook, and Newspaper, which I have never taught; there has been a lot of creating; in my third year, it started to come together in terms of relationships with my kids; that has been the most important thing to me; The English stuff is going to come. Either you are going to figure it out or you are not. And I know I know English; there is a lot of stuff I don't know, but there is a lot of stuff I know well."

"It's just some shit I know: how to talk to a kid, how to get a kid to feel like you give a shit whether they live or die; that's not something I can teach you; you feel the way you feel. Or how to develop a relationship with children. It's about relationship building. I can teach them anything if they think I care about them."

Mentorship:

"How do you talk to kids and get them to understand what it is you want them to understand? That's just [researcher omission]. I don't know if I could teach anybody that. I could tell you what I do and what I say, and you might be able to mimic or pattern yourself after me, but, and I have seen teacher do that, some of them do it better than others, but if you can pick up on the subtle nuances of what I do, hopefully you can incorporate them into your own teaching practices and it might work for you."

Also, peer mentorship and modeling: "I take, I base, what I am going to do, mm, how can I put this? I am not too proud to admit when I don't know something, so I will read up about it, or I will ask a colleague: well, how did you do this? For instance, this year, I haven't taught tenth grade in about eight years, and now there is a new test that I am not familiar with, so I relied heavily on my colleagues to kind of help me limp along a bit until I got to my own knowledge base. How do you write a paper? Well, that doesn't change based, and I don't care what test you are taking, SAT, STAAR, TAKS, TAAS, whatever the hell they want to throw at us in the next five years, how you write an essay does not change, and, especially how you help a struggling writer does not change - - so once I figures that out, what do they, and by "they" I mean the education gods concerned with STAAR, want and how do I help these children from [researcher omission] write this essay?"

Again: "But, again, I asked the teachers who had done this already: what did y'all do? Then I made it fit, let me come up with my own ideas based on what I have heard or read, let me study the test, let me look at the types of questions they ask, and this year, let me pay attention to the training at in-service to see what they want."

Describes previous mentors: "I didn't know what the hell I was doing when I first started teaching. I didn't know how to plan a lesson until halfway through my second year teaching. My mentor was supposed to be my department chair, but that bitch didn't give two fucks what I did or didn't do as long as there was a warm body in the classes; I had three preps, tenth, twelfth and a nine through twelve creative writing class that was a dumping ground for every idiot that needed an extra elective."
"and I have seen a couple of success stories from a couple of *whew-wee, I am not sure she is going to make it*, because I was that story, too. Um, they took bets on me my first year. They didn't think I was going to make it until Halloween, and then they didn't think I would make it to Christmas. I didn't either a couple of times. But, I don't know, it depends if it all falls into place and that teacher is in a setting where he or she can be nurtured; I wouldn't have made it if I didn't have people who actually cared tell me what I was doing right and wrong; that is the trick."

Herself as mentor: "I have seen them, and I have been in the game long enough to recognize them as a mentor, as a struggling first and second year teacher myself, so I am not talking out the side of my neck when I say: *Look. This is terrible. You need to do this or You sure you want to do that? I don't if that's going to work*" A.11

"I have been a mentor for many, and I have had all of those teachers tell me they were glad I was their mentor. When I became one, I decided to be a better mentor than the one I was supposed to have when I first started teaching; my [real] mentor was a science teacher; my mentor was the assistant principal who say me crying and came to help; my mentor was another English teacher who was not assigned to me, but took me aside and said: *Sister, this is not going to work.* And older black woman . . . who, if you think of a cookie cutter English teacher, she's it. She said: *oh no, no, no, dear, you need a lesson plan. What are you doing? What? What do you mean you just go in there and try to figure it out? No ma'am, that will not work.* And then I burst into tears again. Thanks. But no, she taught me how to write a plan, how to have a plan, and how to put it into action; um, you can have all this knowledge, but if you cannot sell it, it doesn't matter."

A1.12

Ends interview with advice from mentor to mentee A1.15

**Describing teacher knowledge and expertise:**

Describes in the following: "It might come from my educational background, it may come from my mother, it might be innate, um, but I think that perhaps a good 30% comes from my educational background, 40% comes form my own experience, the other 30% comes from what I picked up on the way: my unofficial mentors, my colleagues, stuff I have read, lesson planning, things that I have incorporated into my own thing." A1.9

More specifically, expertise: "It might come from my educational background, it may come from my mother, it might be innate, um, but I think that perhaps a good 30% comes from my educational background, 40% comes form my own experience, the other 30% comes from what I picked up on the way: my unofficial mentors, my colleagues, stuff I have read, lesson planning, things that I have incorporated into my own thing."A1.10

Process for organizing knowledge and expertise: "I go back and ask: *is there a better way for me to deliver that knowledge to the next set of kid?* More often than not, it is usually yes. Now there are some things I do every year that I will continue to do every year I teach that grade level. Um, because they just work. The way in which I deliver, or my methods might change. For instance, you and I talked about how to do the research paper unit, and the topic I picked was time travel. Now, three or four years ago . . . that subject didn't trip them up. But this year, we ran into some roadblocks where they
got so bugged down in the topic that they couldn't look at the format. Now will I change that for next year? I don't know yet. I might, I might not." A1.10

**Knowledge of sociocultural contexts and shifting social landscapes:**

Describes a level of knowledge of what is in her environment: Like, how I explain what verb is . . . it can . . . let me go back and amend what I said earlier. I am influenced by my environment and by pop culture and by what they know. So that has to change as they change. So, I am not this static, stoic person that doesn't ever change; because I have to change as the generations change. So what I said ten years ago does not apply now." A1.13

"Now, you don't have to be as well versed in pop culture as I am to get them to listen; but, I need to be able to say: ok, *this group of kids doesn't like* Frankenstein. I am going to have to come up with something else" A1.13

Code-switching and use of linguistic patterns: " But, as I was saying, you have to know where they are, what is their context? What is going on in their lives? What are they hearing? What are they seeing? What does "on fleek" mean? "Ms., your hair is on fleek." Now you can be an old white lady and not know what that means. And they might not care that you know what it means, but it helps that you do and why they write the way that they write. I mean, the slang. They could be calling you a bitch and you have no idea." A1.15
APPENDIX C

Examples of Meaning Fields and High-Level Codes

Meaning Fields (MF) and High-Level Code (HCL)

A.P.: "...and I kind of pattern myself after her in some respects, like whereas she might review in the beginning of class, it was a lot of verbal exchanges, but even the way she would dictate notes, the ways she gave tests, some of her nuances I believe I have incorporated into my classroom" (A1.3)

MF: I structure my teaching similarly based on the pattern or model presented to me OR I do what my teachers did because it was familiar and I have experienced results OR I use the nuances, the ways she was that she used for teaching OR I used the materials and strategies she used.

HLC: A.P. was influenced by her teachers' teaching; this seems to affirm the notion of the apprenticeship of observation in that she is using a template from her previous experiences with teachers as a means to engage and support her current teaching practices.

A.P.: I have been a mentor for many, and I have had all of those teachers tell me they were glad I was their mentor. When I became one, I decided to be a better mentor than the one I was supposed to have when I first started teaching; my [real] mentor was a science teacher; my mentor was the assistant principal who say me crying and came to help; my mentor was another English teacher who was not assigned to me, but took me aside and said: Sister, this is not going to work. And older black woman . . . who, if you think of a cookie cutter English teacher, she's it. She said: oh no, no, no, dear, you need a lesson plan. What are you doing? What? What do you mean you just go in there and try to figure it out? No ma'am, that will not work. And then I burst into tears again. Thanks. But no, she taught me how to write a plan, how to have a plan, and how to put it into action; um, you can have all this knowledge, but if you cannot sell it, it doesn't matter." (A1.120)

MF: I recognize the role of the mentor because mine was helpful OR I am a mentor and am carrying on the legacy of my mentor OR my first few years of teaching would not have been as positive without someone taking me under her wing THEREFORE I know what effective mentorship looks like OR through my mentor, I was able to learn procedural knowledge OR through my mentor, I was supported OR through my mentor I learned how to be a mentor OR I have empathy for new or novice teachers and become a mentor like the mentor I had or in a similar capacity OR I have had a good
mentor and a bad mentor AND one was helpful and offered me support SO I want to continue the tradition to help teachers like I was.

HLC: The mentorship experience seems particularly beneficial for the participant. She had a good mentor in this teacher who showed her not only the benefits of a good mentor, but how and why to be a good mentor to others; perhaps it is this empathy and experiences that makes her privilege mentorship as a significant knowledge source.
WORKS CITED


Walker, Sue; Brownlee, Jo; Whiteford, Chrystal; Exely, Beryl; and Woods, Annette (2012). A longitudinal study of change in preservice teachers' personal epistemologies. *Australian Journal of Teacher Education: Vol. 37: Iss. 5, Article 4*.