TEACHER COGNITION:
FOUR CASE STUDIES OF TEACHERS IN LOW-SES SCHOOLS

By

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TEACHER COGNITION AND PRACTICES IN A LOW-SES SCHOOL:
A CASE STUDY OF FOUR TEACHERS

ABSTRACT

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This qualitative study examined the cognition and practices of four teachers teaching in low–SES schools. The four case studies were comprised of three elementary teachers and one middle school teacher in the state of Columbia*. The study explored how the teachers’ schooling, professional coursework, classroom practices, and contextual factors affected their teaching practices. The conceptual framework for the study came from Borg’s (2003) representation of teacher cognition for language teachers.

Data were triangulated and collected from interviews, documents, and classroom observations. The four teachers were interviewed three times each. The documents collected were professional correspondence, pertinent papers, homework, or other artifacts that demonstrated the teachers’ cognition.

The findings of the study showed the teachers’ cognition was primarily influenced by schooling, classroom practices, and contextual factors, but not professional coursework. The findings also suggest that the teachers in the study found relationships with students and a student reflexive curriculum to be paramount in their classroom practice in a low-SES school. In
addition, three of the teachers all regarded the contextual factor of equity in their schools to be of paramount importance in their cognition of teaching.

*pseudonyms*
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CHAPTER ONE

INTRODUCTION

In the United States, 45% of all children under the age of 18 come from low-income families and that number is expected to rise in the next decade. (Jiang, Ekono, & Skinner, 2014) Not only for children in poverty, but for all children, No Child Left Behind (NCLB) mandates that students be assessed on their learning in school, regardless of the quality of their schools, their background, their race, their home life, the quality of their teachers, or any other variable that would influence academic achievement. The data they receive on their state tests will produce a composite score of a school’s academic progress. If that school does not perform to standard, the school administration has the responsibility to examine the data and make instructional decisions, which range from minimal to extreme measures.

In the current high-stakes testing climate, standardized test scores weigh heavily on the futures of schools. Lawmakers, the public, and school professionals all have a stake in keeping abreast of published test scores. Not only do high performing schools reap the benefits of the current system, but underperforming schools have a variety of costly reform measures from which to choose. Not all underperforming schools are high-poverty schools, but many high-poverty schools are underperforming. Empirical research reveals that children from poverty do come less equipped and less prepared on some academic measures than comparison groups from middle and upper class homes (Duncan, Brooks-Gunn, & Smith, 1998; Haveman & Wolfe, 1995; Milne & Plourde, 2006; Sirin, 2005; White, 1982). Exemplary schools across the United States have shown that certain practices are successful with low socioeconomic (SES) students.
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The research also shows that it is all too easy for educators to adopt a perception that students from low-SES homes are less able to perform than their affluent peers. It is not surprising then, that the real issue is how these students are perceived in school and how their teachers think about their abilities that make all the difference in the classroom.

The focus of this study was to examine teachers’ beliefs and thoughts and how those factors impacted instructional vision and practice. This study sought to reveal patterns in teacher cognition and teacher practices in two low-SES schools. For it is teachers’ cognition, or their thoughts and beliefs, that influence their instructional practices (Borg, 2003). This study further sought to explore patterns that existed between cognition and practice in two low-SES schools.

Literature in the field overwhelmingly contends that teachers’ experience as learners largely dictates their cognition and instructional vision as practitioners in the future (Borg, 2003; Freeman, 1992; Holt Reynolds, 1992; Lortie, 1975; Nisbett and Ross, 1980; Nespor, 1987; Numrich, 1996). That would be an asset to the profession if so many learning experiences were not detrimental. Lortie (1975) called this the “apprenticeship of observation” (p. 61) where teacher cognition was shaped early in life, unbeknownst to the learner. Teachers all have the common experience of school and bring those experiences with them to their careers. Of course, cognition might change when new evidence suggests that prior impressions might be false. Changing patterns of cognition are rarer than might be expected (Nisbett and Ross, 1980), but are still possible (Cabaroglu & Roberts, 2000; Freeman, 1996).
Teacher cognition is inextricably linked to student learning. The literature supports the theory that the patterns in teacher cognition are formed long before teachers enter their pre-service training or their first classrooms (Freeman, 1992; Lortie, 1975; Nisbett & Ross, 1980; Holt Reynolds, 1992; Nespor, 1987; Numrich, 1996). With this basis, we accepted as fact that teachers use their long-held beliefs and thinking patterns to create instructional visions. What they think, believe and understand about education affects their instructional vision. Expanding that further, teachers often already have a comfortable set of beliefs about schools and could be unaware of the incongruence in their practice, or even more detrimental, be resistant to growth through professional development. In contrast, research suggests that when the teachers in a school are learning, student learning increases (Fahey & Glickman, 2012). If teachers can identify patterns in cognition and practice, instruction is strengthened and has a positive effect on student learning. Reflection on one’s own cognition gives depth to one’s work as an educator. Thus, teacher cognition in a low-SES school is of critical importance because of the myriad issues inherent in the teacher’s assignment. An educator’s private thoughts about teaching, learning, and children’s potential from a low-SES household impact student achievement. This study sought to understand patterns that exist between teacher cognition and practices of four teachers in two low-SES schools. The following discussion defines terms that are central to this study. The central object of the study remains to be teacher cognition, with low-SES as a peripheral influence.
Teacher Cognition

Teacher cognition resides inside the mind of an educator. The literature suggests that teachers’ beliefs are formed long before they enter their pre-service training or set foot in a classroom. Teacher cognition is comprised of knowledge, beliefs and thoughts, but cognition also includes in a more subtle way, the patterns that developed over time that support the current thinking (Borg, 2003; Freeman, 1992; Holt Reynolds, 1992; Lortie, 1975; Nisbett and Ross, 1980; Nespor 1987; Numrich, 1966). One way, but not the only way that teacher cognition is developed is called the “apprenticeship of observation” (Lortie, 1975). This theory considers all the personal life experiences of a teacher and their influence on the present.

Lortie’s (1975) research examines one way teacher cognition develops--from personal experiences. In other words, the vast experiences that teachers have as learners permanently shape their cognition as professionals (Borg, 2003; Freeman, 1992; Holt Reynolds, 1992; Lortie, 1975; Nisbett and Ross, 1980, Nespor, 1987; Numrich, 1996). This shaping evolves into patterns of thinking called cognition. However, development of teacher cognition also includes professional coursework, classroom practice (clinical practices) and contextual factors (Borg, 2003). Therefore, this study focused on teacher cognition and its interaction with instructional practices.

Borg (2003) describes teacher cognition as the “unobservable cognitive dimension of teaching—what teachers know, believe, and think” (p. 81). Borg’s (2003) conceptual model of factors that influence teacher cognition was central to this study, and will be discussed later. Teachers’ knowledge, beliefs, thoughts, and instructional visions were all found to be related. Research in teacher cognition originally borrowed
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from the literature on teacher socialization, teacher perspective, and classroom practice (Adler, 1984; Goodman and Adler, 1985; Ross, 1987, 1988). Furthermore, the relationship between teacher cognition and classroom practice were corroborated by Cochran-Smith and Zeichner (2005) and Pajares (1992). In addition, Ladson-Billings (2007) explored teacher cognition as it related to the instructional practices in classrooms populated predominantly by poor children of color. Explaining teacher cognition through the lens of deficit thinking, she studied the relationship between the power of teacher thinking and its impact on classroom practice. In another context, Ladson-Billings (2004) conveyed the power of teacher cognition for new teachers and their understanding of culture as a proxy for being different. She contended that how teachers think about their students affects the teacher’s practices.

For purposes of this study, teacher cognition was used in the context of teachers’ thoughts, beliefs and knowledge about strengths of their students in a low-SES school. Additionally, the study sought to identify patterns within teacher cognition and how those patterns impacted instructional visions and classroom practices.

Low-SES

As mentioned, 45% of all children under the age of 18 come from low-income families (Jiang, Ekono, & Skinner, 2014). Although much discussion exists as to what poverty means, the definition used for this study is twofold: the family’s financial means calculated by the government’s standard and the access the family has to resources. The literature overwhelmingly shows that a family’s socioeconomic status (SES) influences the academic achievement of the children in those families (Brooks-
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Gunn, & Smith, 1998; Duncan; Haveman & Wolfe, 1995; Milne & Plourde, 2006; Sirin; 2005; White, 1982). While educational researchers cannot possibly know the income of each student at a low-SES school, an indicator of low-SES is the free and reduced lunch rate of the building. This information is available from the state, where each of the study schools was located, from the Office of the Superintendent of Public Instruction.

Research Purpose and Questions

The purpose of this study was to understand how teachers’ cognition in low-SES schools affects their instructional practice. Through classroom observations and interviews, patterns relating teacher cognition and their classroom practice were identified. These patterns, derived from the data, informed future instructional visions and impact student learning. Using case study methodology (Miles & Huberman, 1994; Stake 1995), this study examined one middle school teacher and three elementary school teachers. I interviewed the teachers and observed them in the classroom in order to document the patterns that were attributable to the relationship between their cognition and their practice. The research questions were created using Borg’s (2003) model of factors influencing teacher cognition. The words in bold are terminology from the model.

1. How do teachers describe their history of schooling?

2. What professional coursework do teachers describe as central to their practice or vision?

3. How do teachers describe and enact their classroom practice?

4. What contextual factors influence the classroom practice of each teacher?
CHAPTER TWO

LITERATURE REVIEW

Although much discussion exists as to what poverty is and is not, the Census Bureau (2014) calculates poverty as a family’s income relative to the number of family members. (www.census.gov). With nearly 45% of America’s children living in poverty, 45% of children could be perceived as having multiple disadvantages compared to their middle class peers (Jiang, Ekono, & Skinner, 2014). Very little is irreversible though; brain science even tells us that neuroplasticity allows specific changes to occur in the brain as a result of experiences, namely in school (Jensen, 2009).

**Poverty and Student Achievement**

The literature suggests that a family’s socioeconomic status (SES) influences the academic achievement of that family’s children (Duncan, Brooks-Gunn, & Smith, 1998; Haveman & Wolfe, 1995; Milne & Plourde, 2006; Sirin; 2005; White, 1982) and the best opportunity to create alternatives to living in poverty is through public education (Beegle, 2003). However, poverty is the barrier to success that supersedes any other factor in a child’s life (Burney & Beilke, 2008; Ladson-Billings, 2003). For all students, but especially for students from poverty the academic expectations teachers communicate to students in poverty need to be high—and carefully maintained (Olmedo, 1997). The research suggests that the consequences of failure are dire: graduation rates are a greater predictor of success than standardized test scores (Machtinger, 2007). If students are academically challenged with high expectations, they are more likely to stay in school. Staying in school means an even greater
opportunity for choices in life. Additionally, the research on children from poverty draws conclusions about their performance on high-stakes testing (Cunningham & Sanzo, 2002).

**Poverty and Schooling**

Prior to Anyon’s (1980) qualitative study on social class and schooling, no other researcher had looked at empirical data comparing curricular rigor to curricular relevancy. With the benefit of over thirty years’ hindsight, Anyon’s (1980) findings are not too difficult to believe. With samples from four schools that catered to specific social groups, working class, middle class, affluent professional, and executive elites, Anyon (1980) found the students’ classroom work reflected the expectations of the students’ socioeconomic group demographic. In the working class schools, the work teachers assigned to students involved “following steps, rote memorization, and very little in the way of decision making or choice” (p. 73). In the middle class schools, the teachers’ focus was on “getting the right answer” (p. 77). Students were instructed to hold onto learning because the rewards would be delayed, but most likely enjoyed in the form of college or a job. In the affluent professional schools, teachers assigned work that was “creative activity carried out independently” (p. 79). Emphasis was placed on the discussion of ideas and decision making responsibilities were expected to be shared between the class and the teacher. Finally, in the executive elite school, Anyon remarked that the intention seemed to be to develop the analytical and intellectual powers of the children (p. 83). In math, for example, it was observed that the children went through problems in the basis of whether they agreed or disagreed with the presented solutions, not whether they were simply right or wrong.
Anyon’s (1980) study raised concern about the deep social significance that lies in the relationships between teachers’ cognition and instruction that develop even at the elementary level. The curriculum taught at each school coupled with the teacher’s perspective of the students in the class had far reaching effects on the unequal social system itself.

Inequality begins with perspective in thinking. In general, the way people think developed in myriad of ways. French sociologist Bourdieu (1991) characterized the linguistic practices between people in a revolutionary way. Whereas linguists primarily focused on the empirical details of language encounters, Bourdieu (1991) “portrays everyday linguistic exchanges as situated encounters between agents socially endowed with socially structured resources and competencies” (p. 2). His essays, written within the context of language acquisition and the French Revolution, detailed how the upper classes had much to gain through the nationalization of the dominant language. Furthermore, he suggested in *Authorized Language* that it was naïve to question that the power of words exists in a silo separate from the social context from which they are being used.

Teacher Cognition, Attitudes, Beliefs and Practices

Given that the preponderance of teachers in are white, middle-income women, (more prominently in elementary school) (Diffily & Perkins, 2002; Olmedo, 1997) the possibility arises that behavioral or cultural differences might create misunderstandings and/or missed opportunities for connecting with students (Diffily & Perkins, 2002; Olmedo, 1997; Ng & Rury, 2006; Zeichner, 2006). Newer teachers might be unfamiliar with their students and could be tempted to consolidate their observations of
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them into a catchall category of “cultural” differences (Ladson-Billings, 2003), a misuse of Michael Harrington’s (1997) oft-quoted “culture of poverty.” Illuminating the children’s backgrounds for teachers is imperative to the teachers’ understanding of students.

NCLB has set standards and created expectations for teachers and students, regardless of the home environment of those students. To compound the challenge, research suggests that quality instruction is less likely to happen in a high poverty school than it is in a middle class school (Machtinger, 2007; Kozol, 2005), since the demands of a classroom teacher can call for trauma response or sophisticated differentiation strategies due to the variety of learners. Out of necessity, teachers may lower expectations. Do they feel badly for so many of the impossible personal situations of their students? Or could it be that the standards are set to ensure success in multiple areas, but disregard the culturally rich areas of a student’s experience? To decrease expectations for students in poverty, however, does greater harm than good. All students, but particularly students from poverty, need rigorous content, a robust curriculum, and meaningful assessments. Certainly, examining the roots of those beliefs was critical in understanding how it impacted instruction. One way to begin to tease out the meaning of these beliefs is to examine within the context of different meanings of curriculum and perceptions.

Story of Curriculum

The Latin root of “curriculum” means race course (Connelly & Clandinin, 1988). Throughout most of the 20th century and into the 21st century, that definition of curriculum has survived. Most teachers, principals, and volunteers in a school describe
curriculum to mean the calendar of courses and subject a school offers in a year (Connelly & Clandinin, 1988). While early views of curriculum acknowledged both a course of study and an inextricable relationship between the teacher and the lesson, later views of curriculum narrowly focus on a “methods and forms emphasis” (Clandinin & Connelly, 1992). Dating back to Dewey (1938), curriculum was seen as something not to be superficially separated from the teacher, or worse yet, to be designed for teacher to implement. Dewey (1938) saw the learning and the experience to be woven together so tightly that one was not independent of the other. Progressive education became known as a way for teachers to design experiences that would serve to benefit the student for whom they were intended. By design, progressive education considers the child’s past and the intended effect the educational experiences should have on his or her future.

The 1920s

In the 1920s and before Dewey’s (1938) Education and Experience was published, curriculum theory began as a field of study. Curriculum theory was comprised of mainly former “school people” who were said to study curriculum as a way to serve the practitioners to whom they were loyal (Pinar, 1978). They were former teachers who left the classroom to develop new curriculum with the express purpose to aid the practitioners in the field. Their primary interests were the classroom and not to research the development of curricular theory. Today, the study of curriculum is still enslaved in this initial model, wrestling with how best to understand the intricacies of a classroom.
The 1960s

The 1960s were a time of curricular reform where many intellectuals joined the field of study. Prior to academics and researchers entering, curriculum theorists were former classroom teachers with practical experience. With “cognate-field specialists” (Pinar, 1978) entering the field, the former schoolteacher was bypassed. Two things happened during this reform period: 1) empirical research about human behavior was beginning to enter the classroom and 2) trained scientists were coming into the field with new research on human behavior, but had no practical understanding of the history of education. By the 1970s, tension existed between traditionalists (the former schoolteacher researcher) and the new conceptual-empiricist (the researcher with no former school teaching) (Pinar, 1978). Furthermore, even more researchers entered the field attempting to understand the relationship between theory and practice.

Modern day researchers in curriculum studies understand curriculum to be much more alive and unable to classify so cleanly. Sawyer (2010) states “curriculum can create a space to allow the nearly impossible to happen. It can let people investigate how their personal narratives are situated in relation to other narratives, allowing for a recreation for these narratives” (p. 23). Aoki (1993) writes about the distinction between the “curriculum-as-planned” and the “curriculum-as-lived” (p. 257). Aoki (1993) explains that the curriculum-as-plan often exists outside the classroom whereas the curriculum-as lived is the narrative of the individual child in a “landscape of multiplicity” (p. 258-259). Experts know that to truly understand the act of teaching, curriculum and instruction cannot be separated. The literature has opened the door to curriculum becoming a living, breathing experience where individual
narratives are honored, nurtured, and sometimes unpredictable. Pinar’s (1978) reconceptualization movement in the field of curriculum study called for just this. His movement argued for a shift away from technical critiques of curriculum studies to becoming “colleagues in a multidisciplinary transformation of our understanding of the fundamental issues in the human disciplines” (p. 9). Pinar (1978) also called for “emancipatory knowledge” in the field (p. 9). This postmodern perspective on curriculum is shared by Doll (2008) in his self-described search for curriculum that is “dynamic, emergent, transformative, and non-linear” (p. 3). Curriculum can be much more than the standard goal-setting procedure and assessment-giving routine that has been established for centuries (Doll, 2008; Pinar, 1978). However, since the adoption of the Common Core Standards in 45 states, the national focus is one of homogeneity in goals. The future of curriculum and its focus remains unclear as the next several decades in education unfold.

**Teacher Cognition: A Theoretical Framework**

How teachers respond to the notion of curriculum is greatly affected by their cognition. The literature suggests that teachers’ beliefs are formed long before they enter their pre-service training or set foot in a classroom (Borg, 2003; Holt Reynolds, 1992; Johnson, 1994). Those beliefs and thought patterns exist, but are not immutable to change (Cabaroglu & Roberts, 2000; Sawyer & Laguardia, 2010, Freeman 1996). In a qualitative study of twenty-one K-12 teachers participating in professional development on teaching history through a cultural encounters approach, Sawyer and Laguardia (2010) found that teachers did change their thinking. They found that the participants reconceptualized their views of teaching. Those views in practice grew
from their “professional knowledge and expertise in the classroom” (p. 2016). Teachers did change, but they did so by integrating prior thinking and beliefs.

Teacher cognition is comprised of knowledge, beliefs and thoughts, but cognition also includes in a more subtle way, the patterns that develop over time to support current thinking. As stated previously, one way that teacher cognition can develop, called the “apprenticeship of observation,” (Lortie, 1975) considers all the personal life experiences of a teacher and their influence on the present. In other words, the vast experiences that teachers have as learners can shape part of their cognition as professionals (Borg, 2003; Freeman, 1992; Holt Reynolds, 1992; Lortie, 1975; Nisbett and Ross, 1980; Nespor, 1987; Numrich, 1996). This shaping evolves into patterns of thinking called cognition. This study focused on teacher cognition and how it interacted with instructional practices.

The following figure represents the dimensions of teacher cognition as constructed by Borg (2003). Borg’s model depicts the inputs that influence teachers’ cognition and their related effects on one another. Borg’s (2003) model of teacher cognition was chosen as a model for this research because of the comprehensive nature it provides and the breadth it demonstrates for the influences in teacher cognition. A matrix was developed to determine the weight of influence on teachers’ cognition in this study, which will be detailed with the following chapter. Although the model does not isolate for socioeconomic status, its factors situate themselves within the literature on teachers’ beliefs and practices (Adler, 1984; Goodman and Adler, 1985; Ross, 1987, 1988). Other studies have used Borg’s (2003) model (Nishino, 2012), but none
currently link this conceptualization of teacher cognition with practices in a low-SES school.

Figure 1. A model showing the relationship between Teacher Cognition, Schooling, Professional Education, and Classroom Practice (Borg, 2003, p. 82).

Borg (2003) describes teacher cognition as the “unobservable cognitive dimension of teaching—what teachers know, believe, and think” (p. 81). In Figure 1, Borg (2003) describes schooling as the school experiences teachers had as learners themselves, professional coursework as both the pre-service and in-service training teachers receive before certification and after, contextual factors as the pressure in the broad educational landscape such as testing, standards implementation, class size and course load, and lastly, classroom practice as the sum of the experiences teachers have while teaching in the classroom. Studies that complement Borg’s (2003) model suggest that teachers’ knowledge, beliefs, thoughts, and instructional visions are all related (Burns, 1996; Cochran-Smith and Zeichner, 2005; Pajares, 1992; Woods, 1996).

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Adding to the body of research, Ladson-Billings (2007) explored teacher cognition as related to the instructional practices of poor children of color. Although Ladson-Billings did not differentiate between children of color and children who come from poverty, she related the power of teacher thinking and its impact on classroom practice. She contended the ways teachers think about their students affects the teacher’s practices. For purposes of this study, teacher cognition is used in the context of teachers’ thoughts, beliefs and knowledge about strengths of their students in a low-SES school. Additionally, the study sought to identify patterns within teacher cognition and how it impacted instructional vision and classroom practices.

The enormity of this persistent theme in teachers is couched in the larger idea of the “grammar of schooling,” or more commonly, why schools resist change (Cuban and Tyack, 1995). Ask people of differing generations to describe their classroom experiences, and largely they will probably have more in common than not. For centuries schools have been divided into grades, subjects, levels, and classrooms with the purpose of breaking down core knowledge into palatable pieces. In fact, Cuban and Tyack (1995) asserted that the public finds more comfort in a “real” school than they do in accepting changes and ideas that have evolved through decades of research. The reality is that teachers, as part of the public, came to the profession with deeply held beliefs about school and the general public is largely conservative about change. This conclusion has resulted in detrimental effects for children and hopes for reform.

This research conclusion impacts student learning. Fahey and Glickman’s (2012) work centered on understanding that the professional development (or teacher learning opportunities) can positively impact student learning, suggesting that the more
the teachers learn, the more the students learn. Offering teachers professional
development, access to resources, and time to collaborate surely also benefits students; however, their cognition is where it all begins. The beliefs and thoughts of a teacher influence everything, their instructional practices foremost. Understanding the relationship between teacher cognition and teacher practices will provide more insight into effective teaching and appropriately designed professional development. What follows is a discussion of some commonly identified patterns of thinking in the body of research on teacher cognition.

**Teacher Attitude, Beliefs, and Actions**

Since the 1970s, teacher thinking has been a growing area of research. Teachers began to be described as decision makers during this time and researchers delved into their lives to determine what the underlying beliefs were in their decisions. In a meta-analysis of forty studies on teacher thinking, Clark and Peterson (1986) concluded that many teachers evolve in their thinking in three stages: the undergraduate teacher, the developing teacher, and the experienced teacher. The undergraduate teacher focuses heavily on content mastery; the developing teacher is more focused on making his or her beliefs about learners and theories explicit; the experienced teachers takes in students’ cues and feels confident in departing from the lesson. He or she can determine the effects on students and adjust the plan accordingly. Experienced teachers become researchers on their own effectiveness in the classroom (Clark and Peterson, 1986). Effective teaching says Clark (1995), depends just as much on thoughts, plans and decisions as it does on classroom management competence.
Teachers’ thoughts have more impact on their practices than known prior to the 1970s. House (1981) describes the three perspectives as technological, political, and cultural. Technological views of change are rather technical, focusing on the logistics of the innovation. Political perspectives adhere to the complex negotiations between stakeholders. Cultural perspectives give credence to the values inherent in change. It is the longest and slowest form of change. House (1981) suggests that effective change includes all three perspectives in the process. These stages of change are corroborated in the literature and are similar processes—especially in educational change (Berman & McLaughlin, 1978; Lewin, 1961; Clark & Guba, 1965). When faced with new information, the teachers’ perspective on change influences their next decisions. Additionally, Clandinin and Connelly (1992) state that teachers are curriculum makers who envision “curriculum as a course a life” (p. 393). They desire this new metaphor as curriculum makers in research, which calls for knowing teachers’ stories and their realities.

Rust (1993) suggests that change is not an isolated event in schools. New thinking is complex and engages many people in a school. Acknowledging that many changes can be taking place in a school simultaneously, the day-to-day activities that absorb teacher and administrators’ keep the focus off the more important change, lengthening the process even more.

An area of teacher thinking that has been a focus in research has been in the adoption of a culturally responsive approach to instruction. Previously referred to in the literature as multicultural curriculum, culturally responsive pedagogy does more than consider the diversity of students in the classroom. In fact, multicultural
curriculum refers to the selection of diverse texts used in instruction. Culturally responsive teaching refers to instruction tailored to the individual student cultures present in the classroom. It also calls into question the teacher thinking and demands they become the kinds of individuals that they want their students to become (Liston and Zeichner, 1996).

Student demographics are changing faster than teacher demographics (Zeichner, 2003). The preponderance of teachers is still white, middle-income women (Diffily & Perkins, 2002; Olmedo, 1997). It is impossible to expect that every teacher can deeply understand every culture in the classroom, but expecting a bicultural understanding where one recognizes that assumptions affect practice, should be common practice (Liston and Zeichner, 1996). A clash in worldview can surface when a middle-class teacher begins a career working with students from a low-SES background. Liston and Zeichner (1996) say that teachers need to understand “the meanings that students bring with them to school and the type of environment that would support a powerful and empowering education” (p. 91). Indeed, because teachers expect that students encompass a culturally-centric worldview, thinking of others in the classroom, teachers should also practice the same thing. Liston and Zeichner (1996) suggest that the approaches of Ted Sizer (1992) and Deborah Meier (1995) support practices that include all children. Teachers should offer a common core of learning and understanding while at the same time approaching teaching with a sensitivity that conceded they (teachers) “may not have the whole picture in front of them” (Liston and Zeichner, 1996).
Structural Contexts of Practice. In the United States, historically, multiple school sites have made radical changes to instructional practices. Those changes, however radical, still fall under the expectations delineated by No Child Left Behind. Following the 1983 publication of *A Nation at Risk*, the schools in the United States were charged with reforming education to make sure that standards were raised to increase the academic achievement of low-performing schools. What followed *A Nation at Risk* was a series of acts that frame the high-stakes climate of today. Thus, the 1994 Improving America’s Schools Act (IASA) re-authorized the 1965 Elementary and Secondary Education Act (ESEA), which ultimately ushered in Goals 2000. This series of acts brought about sweeping changes and called for local accountability, grade-level assessments, and unified content standards throughout each state. Along with these changes, high-stakes assessment took on a larger role in education, which brought about the passage of NCLB (2001) signed by Former President George Bush in 2002. NCLB demands that all students’ achievement be tracked against a set of state standards. Additionally, the spirit of the act implies that schools will be held accountable for their students’ achievement. They are free to choose the pedagogical strategies they deem necessary, but will be held publically accountable for those choices by the public. In the event that schools underperform, sanctions will be employed ranging from moving students from low-performing to high-performing schools, or firing the principal and 50% of the teaching staff, or holding a school accountable for adequate yearly progress (AYP). The more standards that are placed on schools, the more opportunity there is for teachers to make use of one-size-fits-all methods, or resort to ineffective pedagogy for the sake of efficiency. NCLB may be
unwittingly pressuring teachers to move quickly to the finish line instead of considering the unique demographics of their classrooms. In spite of enormous pressure, some low-SES schools are achieving amazing results.

Manwaring (2011) describes the Obama Administration’s requirements for improving low-performing schools. Those schools chronically failing to achieve AYP comprise about 5,000 schools in the United States. A new term to the literature collectively called “turnaround schools,” these sites have to use federal funding support in one of four ways: (a) turnaround model, which replaces the principal and at least half of the teaching staff; (b) close/consolidation model, which closes the school and transfers students to high-performing schools; (c) restart model, which closes school and restarts it as a charter school, and (d) transformation model, which replaces the principal, overhauls evaluation systems and professional development, extends learning time, and creates a community school with operational flexibility and a comprehensive instructional program (p. 12).

U.S. Secretary of Education, Arne Duncan, supports the turnaround model. Although low-performing schools on the federal list have some flexibility in choosing one of the four models, greater incentives are awarded for choosing turnaround (Kahlenberg, 2009). However, moving the teaching staff to a new school only changes one third of the persons in the building—the other two thirds, the students and the parents, remain the same. Disturbingly, none of the aforementioned programs has any research base to them. Each program is based on the assumption that children do not have what they need, and schools must make instructional decisions on how best to serve them. The problem is that this way of thinking isolates the deficit in the student
without acknowledging the larger sociological structure that contributes to a child’s success in school, i.e., health care, neighborhood safety, and inequitable funding (Ladson-Billings, 2007). According to Manwaring (2011), if research existed as to how to simply improve low-performing schools, there would not be so many of them. Pinpointing the reasons for failure and success are not easy to do. With that said, the literature does describe what successful schools are doing.

More research is still needed in this area, but specific locations in the United States have found success, in both deficit and strengths-based practices. Historically, the Comer Schools originating out of Connecticut and the Coalition for Essential Schools founded by Ted Sizer have all achieved success using strengths-based practices (Noblit, Malloy & Malloy, 1996; Meier, 2006). These models have schools operating across the nation. Individual cases of successful schools in California, Washington, and Pennsylvania have been included in the following discussion.

**Comer Schools.** Beginning in the late 1960s, professors at The Child Study Center at Yale University began researching children who were excluded by mainstream society. At the same time, the Ford Foundation was offering to support projects that helped public education, so Yale and Ford formed a partnership. New Haven Schools in Connecticut submitted a proposal for funding from Yale and Ford, and it was accepted. To fulfill the need for a research team, James Comer came to the district after finishing his child psychiatry training. Together, the Ford Foundation, Yale, and New Haven Schools embarked on a mission to turn around their local schools, calling it the Comer Process (Noblit, Malloy & Malloy, 1996).
The team of researchers in the Comer Process adopted a School Development Program (SDP), which focused on all areas of development of a child. By utilizing the social and behavioral sciences, a school with an SDP looks to improve the climate, school relationships, and raise academic achievement. Additionally, the Comer research team “emphasized analyzing the school as a system in order to understand the complex interactions within the system” (Noblit, Malloy & Malloy, 1996, p. 3). The first two schools of the project had high poverty, high behavior problems, high free and reduced lunch prices, high minority populations, low achievement, and low attendance. How did the Comer team address such negative influences on student learning? What is unique about the Comer model that has evolved over the decades is that it does not have a standardized plan for a school to follow, but uses faculty, parent, and student structures to create a climate of success, specific for the context. It makes use of guiding principles instead of programs. The functional structures in various places abide by the principles of consensus, collaboration, and no fault to “shape the decisions” of the school (Noblit, Malloy & Malloy, 1996, p. 4). The Comer Process is provides a stark contrast to the public’s view of reform because it avoids tightly structured, centralized, standardized programs. It seeks to understand the unique demographics and needs of a school, always putting the needs of children before the needs of the adults.

Since the 1960s, the Comer Process has broadened its focus, no longer exclusively schools with a low SES, African American population but includes all definitions and interpretations of diversity. In welcoming students of all abilities, languages, backgrounds, and SES, the Comer Process provides schools structures and
principles to make changes that benefit student growth. Noblit, Malloy & Malloy (1996), in their case study publication of Comer Schools examine several schools, one of which is Oceanview Elementary School. The case study findings of Oceanview present the overall impact of the Comer Process on an underperforming school.

Oceanview is situated as a neighborhood school, serving students in a nine-block radius. In that radius, “over 37 different languages and dialects are spoken” (Noblit, Malloy & Malloy, 1996, p. 18), school administration’s initial response to the languages made it difficult to make successful relationships with the families. Using the principles of consensus, collaboration, and no fault, the school experienced relational and academic success in the three years it was researched.

For Oceanview, higher academic expectations for students, an improved relationships with parents and community, and a supportive staff and school climate were enough to prove that the school had achieved major successes in the three years…The increased test scores validated everyone’s efforts (Noblit et al., 1996, p. 26).

Consistent with the structures for participation in place, the school began translating bulletins into five languages, created a parent room where adults could help with special projects, linked instructional plans and strategies to assessment data, and created an overall climate of inclusion, instead of a marginalizing failing students. The Comer Process, is still used in hundreds of schools nation wide, seeks to create healthy, involved communities that make structural decisions based on data for the benefit of the all students in the building.
**Coalition for Essential Schools.** Founded in 1984 by educational critic and writer Theodore Sizer, the Coalition for Essential Schools is a national reform effort aimed at personalizing education and making smaller learning communities in the United States. Sizer created the Coalition for Essential Schools as a response to what education was not offering to students in the 20th century. Widely cited, researched, and criticized, the Coalition for Essential Schools Network serves hundreds of K-12 schools in rural and urban areas and its aim is to build strong relationships through smaller schools.

In support of such reform, Deborah Meier (2006), senior scholar at New York University, advocates for smaller schools as a way to preserve and continue educating students about democracy. She says that the continued consolidation makes rigor more difficult to attain, weakens the critical teacher-student relationships, and puts democracy in a precarious position. Conceding that issues will invariably arise, the needs in a smaller learning community far outweigh those of a large, figuratively, shopping mall-type school.

The Coalition then aims to develop smaller learning communities in areas that have fallen victim to the large-school approach to education. What sets the Coalition apart from other reform efforts is its focus on each school as a unique institution. In a high-stakes testing climate, reformers often look for a viable solution to raise achievement throughout an entire category of schools, without the conversation on context or strengths-based practices. The Coalition seeks to promote equity and democracy and does so by advocating for district change, providing resources for educators, and opening avenues for schools to come together and create ways to make
their buildings more personalized and equitable in instructional delivery. The Coalition’s core principles of classroom practice include the following: developing habits of mind and heart, differentiating instruction, adopting culturally responsive teaching practices, and offering performance-based assessments (http://www.essentialschools.org). Results from this school model indicate students do as well or better than other schools with more traditional delivery models and practices for instruction.

It is worth noting that the Coalition has a strong research base and has collected data from multiple school sites over the years. Most notably, in breaking from tradition, the Coalition contends that academic achievement should be measured through multiple avenues; high-stakes state tests are one method and should be paired with other methods of authentic assessment when measuring student.

**Mercer Middle School.** A successful school in Washington State is Mercer Middle School, located on Beacon Hill in the Seattle Public School District. Known for being an underperforming, high-poverty school, Mercer Middle has demonstrated remarkable progress in more ways than academic achievement, although its recent test scores ranked it above the district’s mean in almost every category. A recent Seattle Times article showcased the school, its success and its ability to attract the attention of the Seattle Public School Board.

The Washington State Office of the Superintendent of Public Instruction offered comparative data for the then-WASL scores compared to the now-MSP scores. The difference is glaring: the seventh and eight grade math, science, writing, and reading tests from just 2005 were significantly below the district’s average. More recent data
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reveals significant growth, leaving educators to discover the reasons.

In 2004, the school welcomed a new principal, which is when the turnaround began. The principal, Andhra Lutz, had been trained in the Knowledge is Power Program (KIPP) model, a charter school with a vision of teaching and learning focusing on the pillars of high expectations, choice and commitment, more time, power to lead and an emphasis on results. Lutz, now the former principal, explained that she had no magic to offer for the schools success, but could attribute it to several factors. The school had strong leadership, teacher collaboration time, and a focus on respecting students, which although not exactly the pillars they outlines, encouraged great success in the school. Additionally, the school faculty began the practice of home visits to encourage parent involvement. With a high level of racial diversity and myriad languages spoken at home, teachers knew they needed to make relational connections with parents and guardians. The school needed to bridge the home lives with the school lives of the students. According to Rosenthal (2011), the school, is successful simply because the teachers and administration believe in the students.

The teachers, however, do more than believe in each student. On many days, teachers utilize formative assessment strategies to gauge the knowledge and skill development of their students. Teachers also planned together as a team every two months to be certain struggling students receive the intensive focus they need. Additionally, in a rogue approach to standards-based education, the school decided to use the district’s approved math curriculum only as they viewed it pedagogically appropriate. When data-driven instructional decisions differed from the standardized curriculum, the teacher had the freedom to supplement with other resources. The
school board was not aware of the school’s practices, but now realizes that not all curriculum is suitable given the individual contexts of schools. Board Vice President Michael DeBell commented that board members need to reconsider their strong emphasis on standardizing their curriculum across the city. This realization is not uncommon, and is also characteristic of Harborside Elementary School in California.

**Harborside Elementary School.** Manwaring (2011) describes a success story for Chula Vista, California and home to Harborside Elementary School. In 2002 “only 8% of its sixth graders were proficient in language arts and 12% were proficient in math,” which left the school’s leadership disheartened and at a loss for solutions (p. 10). After six consecutive years not making Adequate Yearly Progress (AYP), the federal government required the school to restructure. Six years is a significant amount of time in the educational life of a students receiving ineffective instruction. In a related quantitative analysis of student achievement over six years study, Rowan (2002) determined the effects of poor teaching increased exponentially after each consecutive year; in the reverse was true for good teaching.

At Harborside, a federally defined turnaround school, both the principal and two-thirds of the teachers were replaced. The new principal led the staff by beginning with a study of Douglas Reeves and Robert Marzano, a combination of research-based teaching strategies and common practices for 90-90-90 schools: 90% free and reduced lunch, 90% minority, and 90% meeting standard in reading and one other area. Additionally, the principal re-structured the day to provide for grade-level meeting time and restricted planning to eight-week blocks, allowing formative assessment data to drive the subsequent block of instruction. With leadership distributed in the teaching
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staff, Harborside made AYP two years after restructuring and saw gains in language and math by 42% and 58%. Harborside is a success story in many ways.

Conclusion

There are no perfect matches for what works in a low-performing school, which is often is a high-poverty school. The Comer Process and the Coalition for Essential Schools provide structures for improvement, but those guidelines consistently recommend that schools build relationships, consider context, and capitalize on assets. Mercer Middle and Harborside Elementary provide two such examples of what can happen when reform measures first consider the needs of students and then develop rigorous curriculum that is responsive to the demographics of the community.
CHAPTER THREE

METHODOLOGY

Since this particular study concerned itself with cognition and practices of teachers in low-SES schools, a case study methodology was used (Miles & Huberman, 1994; Stake 1995). Specifically, the purpose of the study was to examine the patterns that existed in four classroom teachers’ thinking and teaching practices. The following discussion includes a description of the case study methodology used and examines design considerations, my role, participants, data collection, analysis, limitations, and ethical issues that surrounded its use.

Research Design

This study sought to explore the following questions through a qualitative design

1. How do teachers describe their history of schooling?

2. What professional coursework do teachers describe as central to their practice or vision?

3. How do teachers describe and enact their classroom practice?

4. What contextual factors influence the classroom practice of each teacher?

Arguably, no other term in qualitative research comes with as many potential misunderstandings as a case study. Likely due to the words “case study” resembling casework, case method, and case studies, case study methodology can be fraught with misconception (Merriam, 2009). However, challenges notwithstanding, a case study methodology can be particularly helpful in describing the process of conducting the research, analyzing the data, and synthesizing the final product (Merriam, 2009). Even
so, Hammersley and Gomm (2000) contend that the term case study is not used in any standardized format throughout the literature. Taking that into consideration, multiple researchers choose to define “case study” in many overlapping and similar ways, but perhaps a defining description of case studies is simply in how they are selected. This study used the most accepted definition of a case study, which includes an understanding of the intentional selection of participants existing as a “bounded system” (Smith, 1978). A “bounded system” means that the boundaries of the case are clearly defined as to what they include and what they do not. Participants in this study were chosen intentionally within the prescribed boundaries, as are described below, with particular attention paid to the work of Thomas (2011) in choosing a “local knowledge case” (p. 5).

Furthermore, case studies can be prone to “methodological limbo” as described by Gerring (2004, p. 341). Although they continue to rise in popularity, the rules governing their methodology continue to be refined. For this study, I sought to be deliberate about identifying the subject and the object of the case study (Thomas, 2011). The four teachers in low-SES schools were the subject in the study. The central object, or the lens through with the researchers analyzed the subjects was their cognition. The cognition was the object to the study and although low-SES influence and teacher practices are peripheral, cognition remained central in the research and the analysis.

Case Study

Case studies are not chosen randomly; they are specifically chosen because their particular characteristics are of great interest to the researcher (Merriam, 2002). In all
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case studies, the researcher is the “primary instrument of data collection and analysis” (Merriam, 2002, p. 179) and the one who determines which qualitative strategies to use in the study. Such studies are also defined as “bounded systems,” (Smith, 1978) with the researcher determining where the bounds are, i.e., who participates in the study and who does not. The boundaries are largely determined by the research questions and what the researcher hopes to answer in the study. This research project was comprised of four distinct case studies. The bounded systems for this research project included four teachers from two low-SES schools. The boundaries were organized around the four research questions. The four teachers working in a low-SES demographic comprised these four case studies. Three were elementary teachers and one was a middle school teacher. The teachers were selected because of my familiarity with the teachers or in the words of Thomas (2011), a “local knowledge case” (p. 515). Thomas (2011) says that researchers choose a local knowledge case because “there will be intimate knowledge and ample opportunity for informed, in-depth analysis—ample opportunity for identification and discussion” (p. 515). The teachers had to be willing to have an observer in the classroom, or as Thomas (2011) describes it, “ample opportunity” for the researcher to be present (p. 515). The teachers selected had to be willing to be interviewed and offer their thinking or in the words of Thomas (2011), share “intimate knowledge” and participate in “discussion” (p. 515). Additionally, they were selected for their motivation to reflect on the interaction between their thinking and their classroom practices in a low-SES school. The teachers also had to be willing to supply documents reflective of their thinking. This
corroborates with Thomas’ (2011) definition of a local case by offering “opportunity for informed, in-depth analysis” (p.515).

Schwandt (2007) explains that in all case studies the case itself is the focus of the research, not the variables involved. Many critics of case study research argue that a single case is not generalizable to the larger population, a result many desire in research. Cited many times in the literature about case study research, Stake (1995) reinforces the understanding that knowledge is found in the single case, or in other words, the general lies in the particular (Erickson, 1986).

Merriam (2009) states that it has a distinct advantage over other methods for answering the “how” and “why” questions—especially if the variables reveal themselves through the study and were not readily apparent in the beginning.

Narrative Research

Another form of qualitative study, narrative research has gained attention from the research community in the last two decades. Evolving from the longstanding practice of storytelling, narrative research found its way into educational research on the premise that humans are storytellers who have experiences to share (Connelly & Clandinin, 1990). The 1980s witnessed an early form of narrative research in education with the prominence of autobiography and biography. Many research studies in the 1980s produced documents that detailed the stories of teachers from the field and chronicled their work. Still not called narrative, but rather stories, the narrative was quickly approaching its current position in qualitative research. Berk (1980) describes the presence of stories and their eventual decline due to a shift in the kinds of questions that researchers asked in education, mainly moving from what questions to how
questions. These stories provide a rich, deep well of data to a researcher. Analyzed storytelling in practice, or narrative research, includes both the process of documenting the first-person accounts of an experience and the final product that is co-created between researcher and participant.

Merriam (2002) describes three methodological approaches to narrative: biographical, psychological, and linguistic. Although they differ, each methodology examines “how the story is constructed, what linguistic tools are used, and the cultural context of the story” (p. 287). Each approach examines pieces of the narrative with different concentrations. In a biological approach, the life (gender, race, experiences) is emphasized (Denzin, 1989). In a psychological approach, the participant’s inner thoughts and feelings are characterized by their disclosed motivation. In a linguistic approach, the language pattern is the focus of analysis, as specific as the pausing, tone, tempo, and pitch of the speaker’s voice (Gee, 1991, 1999). In this study I made use of the psychological approach when interviewing participants to bring the inner thoughts and feelings about teaching to the surface. I could not determine prior to the study if the teachers already understood their cognition or needed to work through discovery during the study. Narrative research aided in that discovery process in the storytelling, assisted by the semi-structured interview process. Additionally, utilizing member checking with the participants by sharing my field notes and memos further developed the rich story that communicates patterns in cognition.

**Researcher’s Role**

The researcher makes all the critical decisions about interviewing, observing, participation, and timeline. Stake (2005) explains that many design decisions have to
be made regarding presentation of the findings, too. For example, the researcher has to decide how much of the findings will be a story, how much she will declare versus let the reader infer, how much generalizing will be done, and how much this case will be compared to others.

To prepare for research, Milner (2007) recommends that new researchers begin with a critical examination of self and the self as related to others. From that exercise the researcher determined much of the research on low-SES schools intertwined with race. Undoubtedly, investigating teachers’ cognition and practices in a demographic outside my own will call for a culturally responsive approach and awareness of language patterns, thought processes, and assumptions. During an interview, as a researcher I could have been regarded as an insider or an outsider, depending on the amount of disclosure to the participants. As an outsider, researchers are allowed to ask questions that an insider would not. I was allowed to question what might not have been obvious to the participants. If regarded as an insider, the questions and interpretations must be tighter and represent the understandings of the participants.

**My Schooling and Professional Coursework**

As a student in school, I was successful. School was easy for me and overall is a set of wonderful memories. I identified with my teachers and took my studies seriously. My parents were actively involved in my schooling and supportive of my endeavors. It was natural for me to apply and attend college, as it was for my peer group. I attended a state university in Columbia where I majored in political science with the hopes of attending law school. I was influenced by many intelligent professors in my undergraduate years and wanted to continue on in the study of government and
law. Although they encouraged me to pursue graduate school, inside I knew that I did not desire a career in law in Washington, D.C. over a family life. At the time I could not see how the two could be compatible in the long term so I chose my other passion, education. I graduated from a private school the next year with my master’s degree in teaching. It was that experience at a private school that made me re-think my vision. It was at that point that I knew an education could be personal, relevant, and meaningful. Although my undergraduate time was meaningful, it was far from personal. I felt like a number to most of the campus, save for a few professors who got to know me. Since my master’s degree, I pursued my doctoral degree and continued to study education in a way that is purposeful and meaningful to me.

**Classroom Practice**

My time in the classroom has been a powerful time of learning for me. I spent the first six years as a high school English and social studies teacher. I began as an adjunct at a local university concurrently. When my husband and I started our family, I resigned from my high school job and worked occasionally as an adjunct. I taught enough to stay in touch with the educational landscape and notice it was changing. Since then, I have worked as a lecturer for several years and most recently accepted a visiting professor position at the same university. A few years prior, I taught American Literature at a parent partnership/homeschool public school. I witnessed what is out there for alternative education in one capacity. I can undoubtedly say that my colleagues in the high school as well as at the university have shaped my vision and understanding of good pedagogy. My students benefit from refining my practices as I work through a research-reflection cycle always to become better at my craft.
Contextual Factors

My contexts for education have been varied. Public school at the secondary level offered me a look at what educating all students meant. Interactions with administrators, counselors, and parents all provided context for how decisions are sometimes made and how my decisions can be received. I worked in a school with a free and reduced lunch rate of only 25%, so I had minimal experience working with students in varied economic situations. It was when I moved to teaching at the college level that I encountered more diverse economic needs. Although the university is $45,000/year for tuition, I taught mainly in an evening program for adults. Most of my students are living off their financial aid awards, most also work, and many had families to care for. It has been at this level that I have witnessed the most stressful of economic situations.

With this in mind, I came to the research process as a cultural human with unspoken assumptions about education. I had to discover and make my stance explicit to the participants and reader as necessary. I had to remain consistently aware of the personal inferences that she could make during the interview process and the possibility of asking leading questions of the participants. Additionally, I was aware of how much academic reading I had done to prepare for the interviews, but acknowledged that I left the classroom ten years ago. To avoid inference or leading, as well as bias from experiences as a classroom teacher, I approached each set of interviews with a set of semi-structured questions. When I needed more information from a participant, I often stated, “Tell me more about that” to preserve the participant’s voice. After interviews
were transcribed, I regularly engaged in member checking to ensure the participants’ stories were captured as they intended.

**Participants**

This study employed the use of purposeful sampling (Cresswell, 2008), meaning the participants were intentionally chosen for their relevance to the research question and “to understand the central phenomenon” (p. 214). The four teachers’ experiences, as told through the interviews and in observations and by way of documents, were critical to understanding what goes on in schools of poverty. I worked with the building principals to select teachers who met the criteria in the local knowledge case (Thomas, 2011). The principals recommended teachers who had been teaching five+ years in a low-SES school, demonstrated past willingness to grow as educators, and had taken leadership responsibilities in their building. Thus, I selected the teachers because of their current assignment in a low-SES school and meeting the criteria outlined in a local knowledge case (Thomas, 2011).

One teacher came from a low-SES middle school and three came from a low-SES elementary school. In talking with the principals, the local teachers who were chosen had more than five years’ of experience for three reasons. The first object was to select teachers who could integrate a researcher into the instructional day with comfort. Teachers with less experience may not yet had the skill to examine their practice in this method yet given the demands of learning the job. The second consideration was that the teachers had to have enough field experience to draw from and reflect on during the study. Finally, the teachers had to have been assigned to a low-SES school for at least five years to have rich experiences to contribute to the
study. Each of these criteria supported the definition of a local knowledge case as described by Thomas (2011).

It was suspected that in the process of observing and interviewing these teachers that the stories they shared would be personal and thus somewhat vulnerable. To capture the story as it was intended, the participants had to be part of the authoring of the story in its final form through member checking and offering input on my interpretation of the data. This co-authorship valued the story of the participants and makes them accessible to others in the field. By partnering with the participants in the creation of the final story, the possibility of focusing on my interests or furthering an agenda were limited (Kemmis & McTaggart, 2000).

**Data Collection**

Data for this study were collected by three means: interviews, observations, and documents.

**Interviews**

The four teachers were interviewed three times each. Twelve interviews total were conducted using a set of semi-structured questions, in which the participants’ open-ended responses aided in answering the research questions. This supported narrative research as an opportunity for the participants to share their stories and offer insight into their thinking. The teachers were asked to share their thinking about their instructional practices, which was related to the first research question: How do teachers describe their history of schooling? In these interviews I asked teachers about their biographies, their classroom structure and routine, and their curriculum. I interviewed the teachers before and after I observed in their classrooms.
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Interviews were held in-person in the participants’ classrooms at a time convenient for them. Prior to conducting the interviews, the questions were piloted on a colleague. Modifications and improvements were made as needed, keeping in mind that “good interview questions are those that are open-ended and yield descriptive data, even stories about the phenomenon” (Merriam, 2009, p. 99). I recorded and had a professional service transcribe the interview data. This part of the methodology was directly related to the all the research questions

1. How do teachers describe their history of schooling?
2. What professional coursework do teachers describe as central to their practice or vision?
3. How do teachers describe and enact their classroom practice?
4. What contextual factors influence the classroom practice of each teacher?

Observations

Classroom observations took place in four sessions, between the first interview with the participants and the last interview. The purpose of the observations was to address all four research questions. My role was as a participant observer where “the researcher’s observer activities, which are known to the group, are subordinate to the researcher’s role as a participant” (Merriam, 2009, p. 124). While it was desirable to be a complete participant and fully take in the classroom experience, more value was offered to the teacher to participate in the activities of the day.

Documents

The study focused on the patterns of teacher cognition and practices of teachers in low-SES schools. Participants were asked to offer any documents they used in class
that shared their thinking or communicated classroom practices. The purpose of
document analysis in this study was to collect data that provided insight into the
research questions under study. Specifically, documents included letters home, notices
to students, lesson plans, school-wide publications, and professional correspondence.
The documents analysis supported the third research question: How do teachers
describe and enact their classroom practice? Merriam (2009) suggests using a form of
content analysis to analyze the documents for their relevancy to the study. By
determining the content of the document, I determined its relevance to the research
questions that guided the study.

Data Analysis

Data were analyzed by inductive, constant comparative methodology (Glaser &
Strauss, 1967). As it was collected, data was read and memos were created. The
analysis began with the first set of data collected, versus waiting until the end when all
had been collected. As collection continued, similar forms of data were compared to
help identify emerging themes. Initial transcripts from interviews provided an
opportunity to understand and create an on-going analysis. Both interview transcripts
and field notes were read three times and coded, to receive a “tag or label for assigning
units of meaning to the descriptive or inferential information compiled during the
study” (Miles & Huberman, 1994, p. 56). These initial units of meaning helped create
the first list of general themes and patterns in teacher cognition. Then, the list of
themes was further analyzed until patterns emerged from the data.

Following that, each document was read and coded by creating a document
analysis worksheet (Miles & Huberman, 1994) to aid in identifying recurring codes as a
constant comparative strategy. I referred to the literature to determine if the findings were consistent with the existing research in teacher cognition. Initial categories emerged from data analysis of the interviews, observations and the documents. Pattern coding (Miles & Huberman, 1994) was used following the initial recognition of categories to group the data into smaller segments. Following that smaller set of data, I memoed to generate the threads that tie the smaller sets together. Glaser (1978) suggests that memoing is a process that allows the researcher to theorize about the relationships between the thread as they are being coded.

Additionally, I developed a four-cell matrix based on the work of Borg’s (2003) conceptual understanding of the factors that influence teacher cognition. The teachers’ names were recorded in the cells of the factors (schooling, professional coursework, contextual factors and classroom practice) who communicated a high influence in that particular category. Borg’s (2003) model provided both literature and an analytical framework to inform the data analysis. The model provided the aforementioned categories of schooling, professional coursework, contextual factors and classroom practice, which I adapted to fit the context of teaching practices in low-SES schools. The semi-structured questions developed for the interviews were also based on Borg’s (2003) conceptual model.

According to Merriam (2009), research studies can employ the use of multiple strategies to promote validity and reliability. This study made use of triangulation, which uses multiple sources of data for analysis, member checks, in which participants review the data and themes prior to the article’s finalization, and peer review, where the
data analysis process and results will be discussed with a colleague to ensure congruency from start to finish.

**Limitations**

As Merriam (2009) writes, case study research also includes limitations in “reliability, validity, and generalizability” (p. 52). Its lack of empirical evidence gives pause to some readers who are cautious about transferring findings to their own context. Erickson (1986) asserts the reader is the one who can take the pieces that apply to his or her context and omit the extraneous information. Since I was likely to add and omit, the reader is likely to do the same. In fact, the specificity of the case study can be extremely useful in transferring learning to a larger context. Flyvbjerg (2006) implies that the aforementioned misunderstandings of case study research should be restated to be more accurate. For example, instead of stating that, “One can’t generalize from a single case so a single case doesn’t add to scientific development” instead say, “Formal generalization is overvalued as a source of scientific development; the force of a single example is underestimated” (p. 219). However, Guba and Lincoln (1989) corroborate that statement and posit that generalization needs to be given up as the goal in research, and rather transferability should be prized instead. Since each story has its unique path, it is up to the reader to determine which valuable piece is useful in his or her own context.

**Ethical Considerations**

Since I was the primary instrument of data collection, every decision was made with ethical considerations. Regardless of the intentional or unintentional nature of decisions, researchers are at risk for making unethical decisions in interviewing,
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collecting and selecting data, as well as in interpreting the findings. Thus the final document is what speaks for the case. Selective omission could have been a temptation for a researcher who wants the findings to lean in a particular direction, but a strength of case studies include the nuance and detail of a case so fully that it can harness findings that may have been missed through strictly quantitative methodology.

To complement that, I reflected on positionality with regard to power and representation (Merriam, Johnson-Bailey, Lee, Kee, Ntseane & Muhamad, 2001). As I prepared to study the cognition and practices of teachers in low-SES schools I had to consider how I came to the study: as an insider or an outsider. My personal and academic history did not include a childhood or adulthood in poverty and only involved minimal experience teaching students in poverty. I am a middle-income, Euro-American woman, with above average education and access to even more. I was in great danger of inadvertently “othering” when discussing the children in poverty.

Lastly, since I studied the cognition and practices of teachers in low-SES schools, the fallout of those findings may look like blame to teachers in other low-SES schools. Brantlinger (1999) addresses the need for local scholarship, but warns researchers about the risks when findings are made public. She explains that scholars may have research findings that administrators disagree with, and have no intention of implementing. In fact, “critical scholars can be excluded from scholarly discourse and denied perks that accrue from ‘neutral’ studies” (p. 414). This idea placed status on me as an academic who could possibly be seen as blaming teachers for their students’ lack of success, but I was willing to confront that.


CHAPTER FOUR

RESULTS

This chapter will present a portrait of each teacher represented and organized by headings from Borg’s (2003) conceptual framework on teacher cognition: schooling and professional coursework (combined), classroom practice and contextual factors.

Rebecca’s Story

Schooling and Professional Coursework

Rebecca came from a family of four—mother, father, sister, and herself. Her parents were married young and decided to have a family early. Her father worked in technology-related fields, and her mother was the bookkeeper for a law firm. Her parents now jointly run a technology consulting firm. Rebecca always had summer employment at the law firm where her mother worked. In describing her parents’ decisions about education, Rebecca said:

Neither of my parents were—went to college with the exception of my mom did a year at Wiser State University…they knew my path would be—that I would go to college, that is where my interests were, that’s where my abilities were and it’s just a given growing up that yes, you’re going to college.

Reflecting on her history of schooling, Rebecca said her parents expected her to go to college early on, and that was good for Rebecca because she said wanted to be a teacher since “probably first or second grade.” She said, “I loved school, adored school, idolized my teachers. I was blessed to have some very, very strong teachers early on and a string of them.” Rebecca identified with teachers and, as she commented, she could identify strength in her teachers even as a student. This experience was coupled
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with a family member with whom Rebecca learned from as a child. At the time of the interview, Rebecca’s aunt was a professor in special education and was always a mentor to her. She said that her aunt “was a great influence, she was somebody who knew what my interests were.” Rebecca shared that she “identified with her aunt” and still does on some level. Rebecca chose to go to college in the same town as her aunt had for many reasons, mostly to be independent. She commented:

I knew I needed to kind of be away from my parents to figure out who I would be, because I was very, very sheltered, very close with my parents. I knew I needed to kind of cut apron strings a little bit to figure out who I would be aside from that. I also knew that I would utterly fail if I didn’t know somebody there and my aunt and uncle lived in College City.

As much as her parents made college an expectation for Rebecca, they did not have the same expectation for her sister. Rebecca’s sister, Karen, disliked school. Rebecca commented, “My parents recognized that my sister had different interests and needs and knew they could push college all they wanted and that wasn’t going to happen for her.” Rebecca knew then that she was going to take a different path in life than her sister. Rebecca said of her parents and sister,

It’s not like they held her to a lower standard, but they tried to be respectful of her interests and who she was as a person. I think a little bit of it backfired a bit, because I would say she probably isn’t happy with her life choices and has a bit of regrets, but I still have respect for my parents trying to honor the differences and not push a square peg through a round hole.
She knew that her parents were trying to assist Karen with her life choices, but their efforts were met with constant resistance. Karen dropped out of high school and never finished. Rebecca mentioned that Karen “tried art school, she tried working down at National Park just kind of ‘free spirity’ but nothing really seemed to click. She’s got five kids now. Lives out in Buchanan State and not a whole lot of direction.” Rebecca shared that her sister lacked identity growing up. In sharing more about her sister, Rebecca stated:

Interestingly, she lives out the lifestyle that a lot of my students at Pierce Harbor have. Very, very similar, she’s on welfare, has no interest in getting off of it [and] works the system as much as she can for free money, she and her husband. They are—I wouldn’t say they are incredibly successful parents. My niece, one of my eldest nieces lives with my parents. They’re her guardian.

Karen reminded Rebecca of the families at Pierce Harbor Elementary. Rebecca said just meeting her sister would prove to anyone “it’s not always the parents’ fault” how kids turn out the way they do. So often parents can become the sole reason children choose the paths in life that they do. Rebecca commented multiple times that her parents were supportive and present in the lives of their children. Still, however, each daughter took a different path. She continued to reflect:

[I am] very aware of that when I see similarities in my students of their opinions of school. I reflect a lot on my sister’s attributes… if I start seeing that in some of my students I try to think okay, is this truly a dislike of school, is this a struggle to figure out where they fit in relative to others in the family, is it a parent, you know, a reflection of parent beliefs? I try not to take it as just face
value. I really try to see what could it be, because I know there were so many layers to my sister’s struggles that I’m fully aware that there are probably many, many layers to the struggles that my students have.

Rebecca explained her practice of looking under the layers of her students. Just as she did with her own upbringing, she acknowledged that a family could have myriad explanations for the choices of the children. Just as she had parents who supported and cared for her, so may her struggling students have supportive parents. She is careful not to assume poor life choices on the part of the parents when she is supporting the students in her classroom. She said that is a lesson from her history of schooling.

She commented:

And so my thinking is where could you intercept that kiddo whose like my sister and say I can understand and respect that you may not feel that you’re four year college material, but you still need to get yourself on a path for successful life and education is key to that. I feel like that is the gap that my sister had. She didn’t get intercepted, that key point, and so that’s the kind of focus that I keep with kids who are my students.

Rebecca said a teacher must intercept a child at a key point in school to prevent situations such as Karen’s. Rebecca blamed school in part for her sister’s wanderlust. Rebecca said she could not recall a key figure in her sister’s life. However, she was able to recall many key people in her own life. In too many instances, Rebecca felt her sister could have had meaningful relationships that might have set her on a different path. She never found such mentors, and as a result lived a life lacking hope or direction.
As a student in the system, Rebecca said she “idolized her teachers” and that she always had “strong teachers.” She participated in an alternative high school experience where she only minimally attended classes on campus and worked on her own schedule. In the traditional setting, the curriculum did not work for her, so she found something that was tailored to her needs as a high school student. She said that good teachers differentiate their instruction to “meet the needs of the whole child.” In contrast, she remembered this about her least favorite teacher, who didn’t have very engaging methods in class, she was lots of lecture, very abstract if you didn’t understand it she didn’t have an alternate form to present it to you or she wouldn’t sit down and try and talk you through it. It was ‘it’s in the book, it’s in the book. Go back to the book.’

Her least favorite teacher in school did not differentiate curriculum for the class. The teacher made decisions that were easy for her but often difficult for the children. Rebecca said this particular teacher “brought her personal problems into class,” and even worse, the teacher lost work and reduced Rebecca’s scores because of it. She recalled that:

The teacher was having huge personal issues, had lost massive amounts of our papers. Wasn’t paying attention to things, but was still docking us for it, and wouldn’t throw the flag… The only time I hadn’t gotten an A, but I will just remember—I just vividly remember that. It was the most stressful situation that I had ever been in academically.

During that time, Rebecca’s parents started to doubt their daughter’s integrity and became suspicious of her falling grades. Rebecca was under tremendous stress since
she was at the mercy of the teacher. Her parents put more pressure on her as her grades began to slip. It was only by coincidence that her mother discovered the true problem when visiting the school to pick up work due to her daughter’s illness. Rebecca said she will never forget that situation, and thinks of it often as a teacher herself.

By contrast, Rebecca described her favorite teacher, Mr. K, in detail. She said Mr. K:

- did super engaging things. We were higher-level science class for all years, but I remember we would do things like instead of just learning about air and resistance and alternate transportation forms and stuff, we would build the hovercraft. A working hover craft and take turns on it getting pushed down the hall on this hover craft and it was out of like plywood and a chair and like a vacuum and garbage bags and I remember vividly sitting on the hover craft getting shoved down the hall.

Mr. K was a middle science teacher who was hands on, “before it was even cool to be hands on.” He taught his class in a way that you had to participate, had to pay attention, but most of all wanted to. About his relationships, Rebecca reflected that

- He also took time to get to know us as people. He knew I was a diver, I was just starting to get into it at the time. He would ask me about it. Would ask me about what college I wanted to go to and just like it was normal. It wasn’t—didn’t feel like pressure, it was just conversation and it felt like very adult conversation, which was very flattering to 7th and 8th graders. But he would still joke with you.
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Rebecca said the students respected him and he knew about their personal interests. He used his knowledge of their interests and activities to make a connection with the students. His voice in conversation conveyed that he understood they were growing up, but not too old to have fun.

He knew his content and shared it wholeheartedly with his students. Rebecca recalled her excitement when she realized that this teacher was going to move up a grade with her class. Her schedule just said “staff,” but when she arrived in September, he walked up to her and said, “I’m here to make your life miserable for another year.” She said he was “hands-down her favorite teacher.” Rebecca made these connections and more during her interviews.

**Classroom Practices: Rebecca’s Perceptions**

**Structure and Routine.** I interviewed Rebecca on three occasions. During that time she called herself a “structured, strict teacher with high expectations for her kids.” She said in terms of her classroom that she tries:

- to make it engaging and fun. We try to laugh a lot. Kids know my expectation for behavior and academics...but they also know that as long as we’re abiding by standards for behavior and getting our learning targets taken care of, we’re going to have a lot of fun along the way, too. So I think I’m pretty relaxed in my style of speaking with the kids.

Rebecca said this about how she speaks with her students:

- My tendency is to call them sweetheart or buddy, you know things like that. If they make a mistake I will say something like ‘Oh, did that fall out of your head’? You know things like that. I’m not so structured and stuffy that I’m like
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‘no that is incorrect’. They know that I’m a pretty normal person. I’m not some high and lofty sage on the stage kind of thing, but I do have very high expectations, very high expectations.

Talking with her students was part of her routine. Additionally, she commented,

I think they appreciate having the structure and the expectation, too. Feeling like there’s someone who believes they can achieve something higher than they think. That we get a lot more smiles and they’re pretty ready to trust you. Some other building, some other kids, might take it for granted. Take the relationship with the teacher for granted. Just go, ‘Whatever I’m here, checking in, checking out,’ but there are kids in here who definitely appreciate and need the relationship they have with me.

She said that she developed relationships with her students over time. Rebecca said that “Once she can pop through their little wall and prove [her] self” she can get to a deeper level of connection with her students.

Rebecca explained she still stuck to “routines and systems” in place at all times. Rebecca shared about the routines in her classroom:

Oh, my gosh. We have a lot of routines. Just the way the kids come in and check in [every] the morning, I mean checking in with sticks to tell me what kind of lunch that they are having and that they are here. They go to their desks, they know that they get their entry task folder out. They start working on that. We always grade it within 20 minutes and then we sit at the carpet and we have classroom meeting. I mean my whole day is classroom routine.
Rebecca said her classroom practices complement the school-wide PBIS system, although it was not Rebecca’s idea for school-wide management.

Rebecca reported that part of the structure and routine of her room was feeding her students. Rebecca said she regularly fed them. She also said that 100% of the students ate breakfast at school, so she asked them to save something from that meal to have as a mid-morning snack. She said she had to check often to make sure they were not hungry. Rebecca said hunger and sleep impact student learning. For example, she stated,

Kids. Number one is kids coming in with a lack of sleep or a lack of food. Biggest, biggest, biggest ones because if they hit the door, either because there’s stuff going on at home, or mom or dad came home from work at 2 in the morning and then couldn’t get back to sleep, or they had to go along somewhere late at night, or if they don’t have food, they just come in and you can tell from the minute they come to the door that they just look disheveled or out of sorts or tired. You know what a tired kid looks like.

From her interviews, she said she that keeping tabs on their hunger within a structure helped make her classroom “a safe, caring community that is predictable.” She commented:

But then again I think a lot of the routines and the expectations that we have here after the first month or two allows the kids even if they’ve had a really crummy night before or morning of they can within 5 or 10 minutes of hitting the classroom they switched the school persona and they know it’s going to be okay. They know they’re going to have fun. They’re going to have lunch.
They’re going to have breakfast and so that kind of elevates itself. By virtue, I think of the things that we have in place in the classroom.

An additional structure that Rebecca mentioned in her classroom was that she had clustered the students into ability-based groups. Rebecca said the ability-based groups for math and reading ensured that “their needs were being met” academically, too.

Rebecca said that although she reported her highly structured classroom practices served the purpose she wanted it to she also allowed time for “instant modifications” while teaching. She said she altered plans if the students were bored or tired and “integrated kinesthetic activities into the lesson to keep the engagement up.” She reported the students liked this break from the regular routine of the class.

**Curriculum and Instruction.** Rebecca began the discussion of curriculum in her district by describing the books that were so to speak, handed to her. With second graders she used *Treasures* for reading, *Envision* for math, Foss for science, and Lucy Calkins for writing. Rebecca said:

I can go through resources either from things that I’ve leaned from other teachers, looking online at different blogs, advice I’ve had from years of mentors-- that type of thing. Things that I’ve tried in the past that seem like would be engaging and fun for kids. So quite often I do have to delve into that to kind of add to the curriculum, because even though the curriculum we have says it’s differentiated, it’s maybe not in the ways and methods that I would necessarily do.
To supplement or use “secondary resources,” as she called them, Rebecca sought out resources on her own.

When she talked about curriculum, Rebecca explained that she “looked at curriculum differently than when she was a first-year teacher.” Self-described as being “by the book” in her first year of teaching, she explained that her practices have “changed since she started teaching eight years ago.” Rebecca said,

This is how it’s supposed to be done and you know do the curriculum as it is. Didn’t—I felt more pressured to stay with the pacing guides, and I would say probably half way through my second year I just realized that we’re not, we’re not a typical school, not a typical demographic, and even if we were, it doesn’t mean that your classroom is year to year and I need to honor the kids in my class more than I need to [follow] a pacing guide that’s set by some entity that’s never stepped foot in my classroom.

She described her earlier approach to curriculum as being more faithful to the district’s expectations. Now, she attended to her students’ needs first.

Rebecca stated that her district had set curriculum for every subject (but social studies), but still there were “gaps in the curriculum.” For example, she stated that the “curriculum is incomplete” and has a lot of “building to building inconsistency.” Rebecca thought she followed the prescribed scope and sequence with fidelity, but said she now “felt free to modify the curriculum to best fit her students” as a “veteran teacher.” She described pacing guides as “oppressive and unresponsive to the needs of real kids.” To her, pacing guides created disheartened teachers who struggled to respond to the learners in front of them. In fact, she said, “the pacing guides
contributed to a bigger problem of pushing kids to the next grade level without the time they needed to master a skill or a concept.” Rebecca said she “chose to honor kids over pacing guides.” She commented that her school’s free and reduced rate of 79% played a part in her students’ lack of school readiness, but she said she never let that lower her expectations. She said that in the district curriculum:

The interventions and the differentiation all tend to exist at a worksheet level. And the kids that I have in this demographic here largely need more hands-on activities. They need to make it more concrete. They need to have experience; for example, if we’re doing phonics work, they need to be able to physically move sounds around in a word, by having them on cubes or tiles and things like that to actually physically move them around instead of just fill out a worksheet, fill in the blank thing and what word sound would go there. They actually have to have that kinesthetic piece and see it.

Rebecca stated that she modified her curriculum for her classroom in all content areas, with the exception of science and social studies. She taught science and social studies using whole-class methods. She did not find the need to differentiate as heavily in those content areas.

One of her practices she explained was that “she tried new lessons with a focus group first to see how they responded.” She then took lessons to the whole class with some of the bugs worked out. She modified writing the most this year and sometimes made changes in the middle of a lesson. She modified lessons “on the fly” on occasion if, in her professional judgment, she needed to slow down. This, she explained, “is a gap in curriculum and not a gap in students.” She said:
I’ve, you know, taught second grade a few years, and none of the years have been the same as far as the makeup of the kids. You know some might have gaps and really have a hard time in place value or the next year that group just might have these huge gaps in money and time. And so I can make the notes in the teacher’s manual, but it doesn’t mean that it’s going to be the same next year because the kids are so different. This year with 16 boys I’ve never had that ratio of boys and it’s been a completely different set of gaps and learning speeds than I have seen before.

She made notes in her teacher’s manual if needed, but also realized that “a note for this year may not even apply to next year’s students.” When asked about her internal monologue for making modifications, Rebecca stated:

I tend to run through a few different questions in my head as I am processing the learning tasks I am preparing for kids. I typically think about what I know about the child (strengths, weaknesses, personal goals, learning style, motivations) along with what my objective is for the learning task (my goals for the child, standards, scaffolding for another lesson, etc.) I then try to merge the two facets together into something that is engaging, relevant, and doable.

She stated that her teaching changed based on the needs of the kids. Rebecca explained,

So I have been to like a hula show and basketball games, and football games and things like that. So I do, do that. I try not to do it super regularly with any one particular kiddo, because it sounds a little bit cold, but if I were to go to every single football game for a kiddo I knew who really needed me to be there every single football game, that gap becomes ginormous when they leave my
class. And they fall into almost a deeper pit of ‘Now I don’t have [anybody] there.

She said that occasionally attending students’ outside activities helped her understand their needs even more. Rebecca stated that she worked hard to know her class and “attend[ing] their extracurricular activities” helped that process.

She sought to identify a student’s capabilities and made curricular decisions in the child’s best interest. She concluded that kids are different and her curriculum modifications were flexible enough to meet them where they were.

Classroom Practices: My Observations

When I arrived at Pierce Harbor Elementary to observe second grade teacher, Rebecca Kezzap, in her classroom, I noticed the attention to detail in the classroom. The folders, the books, and the crayons were all sorted and ready for the children. Rebecca’s space was truly something out of a magazine. She informed me that she had painted the room herself, a bright purple or “Barney the Dinosaur purple” as she called it. Going clockwise around the room, I observed a space for children. There was a coat and bag area with low-to-the ground hooks. The weekly letter to parents with reminders hung nearby. The teacher’s area was near the front and was occupied by Rebecca’s desk, her bookshelves, and a space for sorting materials. She also hung family photos and her diplomas from two universities: one for her master’s degree and one for her bachelor’s degree. The front of the room was a space for teaching. She had a document camera accessible, but not in the way of students. Rainbow-colored rolling drawers were close to hold materials for students. The front corner was her literacy area. She had a kidney-shaped table and many reading resources nearby for both
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students and teacher to access. I saw thick binders of district-created materials, leveled readers from the reading curriculum, writing guides, and large flashcards. The side of the room showcased student work samples, extra copies, and a big window. The window overlooked the blacktop area used for recess. She told me the back corner of the room contained only the classroom library. Next to the library was the class meeting area, designated by the primary-colored carpet. Rebecca commented that she also used an easel at the class meeting area. I saw laminated cards there that held the classroom expectations on them. The calendar, the weather, and other important information was posted on the back wall near the class meeting area. She mentioned she had purchased nearly everything in the room, save for the furniture and tiny chair I sat on during the observations.

Rebecca had served as a second grade teacher in her school for five years. At the time of her observations and interviews, she had just heard that she might move to teach full-day kindergarten in her Title 1 school. She expressed that she “was thrilled” about the possibilities for the students at Pierce Harbor and “very excited” to teach full-day kindergarten.

**Structure and routine.** Rebecca’s classroom appeared well organized. Upon entering the room, I identified different zones for activities in the classroom. She arranged her students by tables, labeled in separate pods—there was a Rhombus Table, a Square Table, a Circle Table, a Hexagon Table, and a Triangle Table. At different times, she called the students by “shapes” to keep order in the room. She used the kidney-shaped table for literacy circles and small groups and held the class meetings on the primary-colored carpet.
During a class meeting, Rebecca went over a negative guest-teacher report with the students. Rebecca explained the importance of giving a guest teacher respect and a quiet environment for the kindergarten neighbors next door. While at the carpet, she brainstormed ways the students could make better choices and solve their own problems. She asked, “How can we do better?” The students reviewed the class rules through choral recitation and visual support. Following that, the students answered a question of the day, a practice that took place every morning. That day the question was, “If you could be an Olympic athlete, which event would you do?” Rebecca passed the stuffed animal, Skippy John Jones, to one student who passed it to the next upon answering. The system was in place every day. The students finished their carpet time and moved back to their tables. The daily schedule was posted in the classroom for the students to see. The schedule stayed the same each day and accounted for specialists and Title 1 staff to “double dip” the students in their learning, as she called it. Near the daily schedule, I observed multiple versions of the parent letter sent home each week. Rebecca gave me three different letters to help me understand the kind of information she sent home each week. Letters from April 12, 2013, May 10, 2013, and May 31, 2013 offered recaps of the learning goals and upcoming events. For example, the letter dated April 12 read, “We continue to work on our phonics, grammar, and comprehension skills.” The letter dated May 10 read, “We are in the midst of watching the changes our milkweed bugs and caterpillars undergo as they progress through their life cycles.” Finally, the letter dated May 31 read, “Our field trip to the park is quickly approaching!”
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I observed many piles of paper in the room, which appeared to be organized. Rebecca managed student papers by using mailboxes for important documents. Take-home papers never co-mingled with school papers. Each student had a folder at the table where in-process work was stored and retrieved. Supporting tools were available to each student. Every pencil and marker had a place in her room. In addition, the classroom library books, labeled with legible, bright pieces of paper, helped students identify their reading level. Her classroom library was situated in the corner of the classroom and took up space on two walls. The check-out system was in place and used by the students.

When Pierce Harbor Elementary was built, it included a cafeteria. The student population had increased so much in the past decade that the cafeteria no longer accommodated the children. Instead, the lunch staff served the children their meal and then the children returned to their classrooms to eat. With too many children to feed on a school day, the lunchtime routine took place with the teacher. At 12:08, Rebecca rang a bell that signaled a two-minute warning until lunch. She further got their attention by saying, “And a hush fell over the crowd.” The students were called by table to line up for their meal. 100% of the children took a school-provided lunch that day. I heard students say, “I’m hungry” and “What’s for lunch today?” The students lined up in ABC order, as was the routine for walking in the hall. Rebecca gave each student hand sanitizer and had them rub it in while waiting in line. Since Pierce Harbor adopted Positive Behavior Intervention System (PBIS) school wide, one of the routines of PBIS (and at Pierce Harbor Elementary) is lining up alphabetically. Rebecca walked the children to the cafeteria in that order to receive their meal and then immediately
escorted them back to the room. The students returned to their assigned “shape tables” to eat. Rebecca communicated an expectation of silence to the students when walking in the hall and an expectation of continued silence during the lunchtime hour. She said, “Voices off” to them. One student, Jamie, began talking during eating time. Rebecca saw her, reminded her of the expectation, and the student quieted. No other students talked during lunchtime. Rebecca played a movie on the screen, so the students turned 45 degrees in their seats to see the movie while eating. The children were released to recess after lunch for a total of thirty minutes to temporarily relieve the classroom teacher of her duties. This was the last recess of the day for the children. The schedule no longer allowed time for afternoon recess due to Response to Intervention (RTI) time expectations outlined by Title 1.

**Curriculum and instruction.** During my time of observation, I saw how Rebecca conducted whole-group instruction. Seated at the document camera, Rebecca guided the class through completing a social studies project. The district had not adopted a common social studies curriculum at the time of my observations. Rebecca explained that the second grade team, which included four teachers, met to share resources, but each teacher created his/her individual social studies scope and sequence.

Each student was seated at a designated table and responded to Rebecca’s questions by raising their hands. Rebecca asked students to draw a bank on their papers and asked the class, “What is a bank for?” Ainsley raised her hand and responded with, “Food.” Nyah raised her hand and said, “Like a food bank.”

At another observation, Rebecca’s students were studying the Hawaiian Islands. They raised their hands to ask questions. I heard a boy in baseball cap ask, “What is
the music like?” and a girl with pigtails say “How long does it take to get there?” I also heard, a quiet boy mention, “I’ve never been to Hawaii” and “I want to travel when I grow up.” The Hawaii unit did not follow the district social studies curriculum because there is no agreed upon scope or sequence, as Rebecca had told me. During the lesson, Emmy started to talk out of turn and hold side conversations with her tablemates. Rebecca stopped the lesson and asked her to “make a better choice.” Rebecca asked Emmy to think up that choice in the following minutes. Rebecca met privately with the student to see what choice she made. The lesson continued when Rebecca asked the students to practice a recount of how to get from Columbia to Hawaii. No student suggested travel by airplane. Rebecca suggested air travel and told the students approximately how long it took to travel by air. Many of the boys and girls remarked that they had never been in an airplane.

In their books, the students had to write a page called “About the Author,” where they described themselves in terms of a professional author. They needed to describe why they would want to go to Hawaii. Rebecca selected Pierce to use as the example. She said Pierce would say that he wanted to go to Hawaii because “he would play for the Seahawks in the Pro Bowl there.” Pierce smiled when Rebecca explained his example.

Days later, I had the opportunity be with the second grade class again. As soon as I arrived in class, the students were ushered into the cafeteria in alphabetical order. The students were given twenty minutes to sign the yearbooks of the other students in the grade level. On the way to the cafeteria, Rebecca said that the students would ask me to sign their yearbook. She commented that getting signatures was so important to
them—even to the extent that they asked adults they did not even know. A few minutes later, many students came to me and asked for my signature. I identified five students with yearbooks. The rest of the students were carrying around packets that had each student’s picture inside as well as blank pages for writing. Rebecca explained that the students did not have money for yearbooks so the teachers created their own substitutions every year.

**Contextual Factors**

**Vision for teaching.** Rebecca held to the ideal for her classroom that her kids’ personal situations were not excuses for failure. She said she taught her students that they can want more. She told me she looked at a student once and said, “You don’t have to have your mom’s life.” Her students could become contributing citizens and could create their own futures. She said that teachers must be advocates for kids, but they also needed support at home. Since that was not always possible, she said teachers “must step in the gap” and make school accessible to kids. She explained, “step in the gap,” referred to her comments on her sister. She recalled that no teacher intercepted her sister at a key point. Rebecca felt that her job was to identify those points and step in that gap or intercept that student. Here a contextual factor overlapped with a history of schooling memory for Rebecca.

That gap becomes more complex when both students and parents need assistance. Sometimes she had to intercept kids in key places alongside the parents because her students were so young. She believed that parents have “layers” and that parents have “issues.” Parents often had “negative experiences in school that affected their views.” Rebecca said that not many of the parents were involved in her classroom,
but that she had to change her perspective about that several years ago. She understood now that parents might bring their own issues into their children’s lives, but both teacher and parent agree on wanting the best for the student.

In considering how to teach her students, Rebecca said she liked researched-based curriculum; however, she added that even research-based curriculum doesn’t work for all students. “Looping” in the past provided a structure for her to know her students well. She said it “offered more of a chance to make an impact.” “Looping” is a somewhat unique practice of retaining students from one year to the next out of preference, not remediation. The teacher and the class are promoted to the next grade level together. She offered here that the more time she had to deeply know her students, the more opportunity she has to make a difference in their lives. If she knew them better, she could tailor her curriculum to meet the needs of kids as well as their interests. Since her students moved schools often, she found it even more important to make sure they could count on her and were “known” in the classroom. All this takes rapport took time and effort, but Rebecca relayed that it was all part of her vision for teaching.

**Equity issues in the classroom.** As I mentioned earlier, Pierce Harbor Elementary had a 79% free and reduced lunch rate at the time that the interviews and observations were conducted. Rebecca said she made decisions for her students based on their needs, but often had to “justify them to the district.” Her school was one of six elementary schools in the district, but the only one with a considerably high free and reduced lunch rate. She commented that when she and her colleagues in the building attended district-wide trainings, they would have to stay quiet. The pacing and
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instructional guidance offered usually did not meet the needs of her kids. In her words, “the same resources does not mean equal.”

Rebecca said that her students epitomized Maslow’s (1954) Hierarchy of Needs in the lowest level. She said her district provided no additional funds for food; and yet, her students arrived at school hungry. Breakfast was not served until 9:00, which was hours after her students first needed food. By comparison to other buildings, her students started the day with a disadvantage, but there was no acknowledgement of that inequity from the district. The copy budgets were the same in each building, but at Pierce Harbor Elementary the teachers found they were using it more rapidly. Many of the students lacked print materials at home. Teachers were copying material at a feverish rate. They were scolded for going over budget, but they explained they could not send home any more books for homework because the children fail to return them school. Additionally, from a curricular position, Rebecca’s main concern was that her students lacked schema, which impacted their reading and their writing growth. The “unique kids dictate the community” of learners she had in her room, but she was discouraged by the minimal impact the Title 1 funds had on the school. She explained that so many dollars were earmarked for mandatory programs. It left little that the classroom teachers could access to effect change.

Rebecca brought up another issue during this interview regarding the impact of a Parent Teacher Student Organization. The PTSO in her school brought in $1300 per year in fundraisers. She contrasted that with a school four miles away that brought in about $25,000 annually in its two fundraisers. The PTSO from the affluent school offered no-strings-attached money for each grade level to purchase support materials
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for the classroom. The teachers in that school purchased licenses for at-home, online math programs, supplementary texts for the new reading curriculum, and class sets of dictionaries. There was no money in Rebecca’s school for these extra supports, so the educational divide grew wider. She explained that there had been discussion of the affluent schools sharing with her building, but the parents were unwilling to do that. The affluent parents said if their money went to another school they would quit contributing.

Kari’s Story

In an area of town known as Rosemary Valley was Lincoln Middle School and Kari Anderson’s classroom. Never having been inside Lincoln, I parked near the building and walked toward the school on the first scheduled day of interviewing. Lincoln had one sign on its field, but nothing indicating where the main entrance was located. I found a side door and let myself in. I bypassed the front office entirely through that door, but ultimately signed in and identified myself with the “visitor” sticker they asked me to wear. I found Kari waiting in a vacant classroom, and I began our first of three total interviews.

Schooling and Professional Coursework

Native to the city of Columbia, teacher Kari Anderson was born and raised in the area. She grew up in a family of four: a mother, father, and a twin sister. She described her family as “pretty stable.” Her parents were still married and had never moved from Kari’s childhood home. Kari went to school in Columbia, but moved away to the other side of the state for college. She said that, “my family—I have a very small family here and so they—they’re important to me. So I wanted to come back and
be near them, which has been really important.” College took her away; student teaching brought her back to Columbia, and she never left again.

When reflecting on her professional coursework, it intertwined with her history of schooling. Kari spoke about her student teaching experience during the first part of the interview and commented that it “was such a good experience.” She grew up on the opposite side of town than where she was placed, so when her first day came, she had to look it up on a map. She called her father for help in finding the school and said, “I don’t even know where this is located.” She commented to me again that they had never moved in her childhood, so knew there was a big part of her hometown she had never visited.

She met her husband in Columbia and shared, “My husband’s family is really big, too, and his family is from here as well so it’s nice. We have a lot of family support and stuff like that, which is huge.” She was married just one week before she accepted her first teaching job twelve years ago.

Kari became a teacher at age 22 and explained that her childhood experiences in school influenced that decision. She said that when she was a kid in school she learned things quickly, but her work did not matter to her. She commented:

I didn’t always give my best effort and so I was a little chatty, a little bit distracted and so now-a-days I would totally be just fine because the kind of view of learning [we have now]. It’s a little bit more individualized approach this day and age, but when I was in school it was not like that. And so I just had a really—I kind of struggled through it a lot in elementary school. I had a really hard time being successful and just remembered feeling really, really bad.
She described herself as an unconventional kid. She commented, “I was the only girl that would play soccer at recess.” She said the other girls in the class took ballet, but she played soccer. Kari felt she did things differently from the other girls. She remembered getting in trouble in school often. She recalled:

I would get in trouble for reading. I would hurry through my work and then read and I remember getting in trouble for reading and it was because, well, I should be taking the same amount of time as everybody else on the work.

Kari’s parents intervened on her behalf and talked to her teacher. She remembered the incident:

So my parents would be like, ‘Well, is she doing it wrong?’

‘No.’

‘Is she talking?’

‘No.’

‘She’s reading and she could spend—her numbers could look a little clearer.’

Kari said that not until her sixth grade year did she have a teacher give her a “real chance to break out of” the cycle she was in at school-- getting in trouble and lacking praise for the things she was good at doing. She said:

[I] was not the kid that was going to do it the same way as everybody else, probably just out of a rebellious reason I’m sure. But you know there are a lot of kids who I would see in my classroom that would be in the same boat. They could get to the same endpoint, they just needed a little different road map to do that and that’s okay.
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She was given that opportunity to do things differently in her sixth grade class and it made a difference in her school life. She said her experience in that classroom shaped her as a future teacher. She commented, “So that was part of my application to education. That was one of my life experiences; I just wanted to be that type of teacher.”

That teacher, Mr. Finch, became her favorite elementary teacher. Kari remembered Mr. Finch valued her as a person. He “really kind of helped break my mindset up before I went to junior high, which I think was really important.” She recalled another teacher, this time her middle school social studies teacher, as being another favorite. Mrs. Austen helped Kari break up her negative mindset about school. Mrs. Austen had a cooperative learning environment in her classroom. She asked students to teach others often. Kari said:

You would do the research and present it to the class, which was—so I would basically be in this teaching role which I loved, ‘Oh, get up in front of people? That’s great.’ And so I just—she loved, loved having me get up and do that. It was probably the beginning of my like inkling that I might want to be a teacher.

Furthermore, Kari commented on how that made her feel in the classroom. She said, “That was a really big deal that I had a lot of leadership role for that, which was really great and really good for me at the time.” Kari had great success that year in school.

In high school, Kari recalled the influence of Ms. Pfeffer as influential in her schooling. She said, “I thought she walked on water then and I definitely think she walks on water now.” Kari responded positively to an English class where multiple answers were acceptable and debate was encouraged. She recalled “really, really
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loving her [Ms. Pfeffer’s] style.” Ms. Pfeffer was part of the mentoring program when Kari was hired as a first-year teacher. Kari was able to watch Mrs. Pfeffer teach, this time as a teacher herself and recalled the experience: “She made everything come alive. She’s the reason why it made me want to be an English teacher for sure. She made me want to do that.”

Not every teacher in Kari’s past aided in her career aspirations. In elementary school, her classroom experiences were fraught with threats and embarrassment. She recalled having a new teacher and perceiving that her “inability to kind of fit in” often threatened the new teacher. Kari said that whenever she misbehaved in elementary school that particular teacher always witnessed it. She felt caught in a cycle of wrongdoing with the teacher. She remembered many punitive responses to her behavior. She commented: “It took a couple of years to kind of get out of that in terms of just really negative [times].” Kari shared that she was a bright student and wanted to try the honors program. However:

To get into the honors program at the time you needed a teacher recommendation and she refused to write one for me, and it took me then until I was in high school to get into honors and that was part of the reason why I was in trouble all the time. I would get done too soon and not have enough to do. Kari was in trouble in a “one-size-fits-all classroom at the time.” She said, “that’s another reason why I try really hard to find the root of the problem because I remember being that kid.” Kari explained she dug into problems in class instead of just punishing her students.
Kari has sought to be the teacher that she had envisioned becoming as a child. In her first year of teaching, Kari completed her master’s degree in early childhood education (ECE). Her focus was on birth to third grade. She said she used the district curriculum in a resource room. Her master’s in ECE complemented her work. She said, “There’s that developmental piece that was broken somewhere along the line in terms of learning those skills, so remembering that continuum of development so that I could identify the pieces that were different, to kind of identify where some of those gaps were.”

Kari shared that she was a mother to two children, a six-year-old daughter and a four-year-old daughter. She saw sending her oldest to school as “a whole eye-opening experience leaving my child to a teacher.” She said, “You start to forget that kids are a part of a bigger picture and so having my own daughter go to school was a real reminder — these are somebody’s babies.” With that in mind, she started the school year differently. She tried to get to know the students more than she thought she had in the past. She commented, “I am as a person trying to get to know them a little better just out of that empathy of like, ‘Oh that’s right. You know they’re somebody’s child’ and I know that but it’s different when some—you feel the tug on your own heart.”

Kari shared a time of her life that “was a real eye-opening experience.” Her oldest daughter was diagnosed with cancer just one year prior to this interview. She explained that it was the first time in her life that a whole team of professionals had to help her child, instead of her helping someone else’s child. This cancer diagnosis caused Kari to move to a place of trusting professionals. She reflected about that change:
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I realized that I actually didn’t trust any of them until I knew that they cared. If I go back and think of my memories of them it wasn’t degrees, it wasn’t their years of being a doctor, it wasn’t where they went to school, it wasn’t any of that stuff it was do you view my daughter and do you view us as people?

Kari found herself navigating a system with which she was unfamiliar. When she came back to work, she tried to take a piece of that with her as she resumed working with students and their families. She stated, “And I want to be that type of teacher where you know it reminded me this [school] can look just as big as a hospital system did to me. It was a world I was uncomfortable with.” She knew that a lot of her students’ parents thought the same thing about schools. She also recalled watching doctors work on her daughter who did not give “warms fuzzies” to her treatment providers. Kari said her students often acted the same way. She connected, “That’s what a lot of time our kids do here. They’re hurting, things aren’t going good, they’re not warm fuzzies, you’re not going to get this.” But she kept trying to reach them.

Classroom Practice: Kari’s Perceptions

Structure and Routine. As I stated, I interviewed Kari on three occasions. During that time she explained that she “had never done the same thing two years in a row, so I’ve done the—I’ve always looped with my students” in a unique set of classroom practices. She explained that she had been part of “lots of different delivery models” in her twelve years as a teacher. When she began teaching she said that in special education, “they were just starting to get into more inclusion model and that type of thing, but we were still doing a separate curriculum and then it kind of morphed.” After a few years of that system, the district she worked for asked her to use
the same curriculum the regular classes used, but to “modify or accommodate for the different kinds of kids.” Kari also explained her teaching structure included strict pull out models at times or a support class for ELL students in the building. She said that no matter what model she used that:

Every year we’re trying to do it better. So the idea was just to try and meet the kids’ needs and I think every year we change, because our population of the kids changes. So especially when I did resource, every year you had different kids with different disabilities with different goals with different behaviors with different needs, so that change was not a—like a thoughtless change. It was intended to best serve the needs of our kids.

Kari elaborated on her perceptions about the children she has taught in her classroom practice. The children have had varied needs. She said:

I’ve had kids of course across the spectrum of disabilities, so I’ve had kids with learning disabilities; I’ve had kids with ADHD; I’ve had kids with autism; I’ve had kids with behavior disorders; I’ve had kids with you know all different kinds of disabilities of course, but then I’ve also worked with kids at risk. I’ve worked with underperforming kids who were more capable. I’m working with honors kids. I’ve had kind of a bunch of different challenging situations that the kids have been in. So just all different you know. Every kid is unique so that always stands out to me.

Kari discussed her perceptions on kids in crisis and how that affected the structure of her teaching. She noted:
A lot of my students are stronger than I would probably have been in that situation. And so we have some really tough kids that are able to do really well despite their life circumstances, and home life, and that type of thing. And so there’s some really tough kids and really resilient kids, and sometimes you don’t know the things that are going on in their lives and sometimes you won’t find it out until the end of the year when they say, “Oh by the way…” And I’m like what? I had no idea.

Kari shared that her students maintained well in her class all year even if they were in crisis. For example, if students forgot their books, she reminded them to solve the problem. She does “use a class set for the kids or if they lose their books…they can’t say they don’t have it because it’s on the back counter.” She stated that keeping track of materials was difficult for her students, so she worked on that all year with them. She said there were always ways to solve problems, but the solution, “will look a little different but there shouldn’t be an interruption in the learning process whether you brought a pencil, didn’t bring a pencil, brought your book, didn’t bring a book, because we all know where those resources are.” Kari said she gets the kids to take ownership of their learning and will not allow them to say, for example:

“I can’t do my assignment because I don’t have a pencil.” I’m like, “Ah you don’t have a pencil, what are you going to do to solve that?” “I don’t know.” “You don’t know? Ask your neighbor, because they look like they have a pencil. What did you do to bring a pencil?” You know because it’s like you’re sitting at a table with four kids and I ask them, ‘look on the floor.’
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In fact, Kari shared that she used to have a poster in her room that said, “What do you do when you don’t have a pencil?”

However, even if the students were different, Kari has determined her style within her structure tended to stay the same. She told me that she made adjustments from period to period. She stated:

There are some of my classes that can’t do group work very well. They just can’t do some things and some that do have to do it independently because it just—so that does just differ in terms of how we’re going to run it, it will look different.

Part of looking different in each class was homework. Kari worked with her grade-level team to communicate expectations clearly to the students. The team perceived they had a “culture of homework” because “they think it’s important.” For example:

Our whole team assigns homework and we have homework nights and we just communicate that out to parents. Monday night is homework for English. Tuesday night is homework for whatever, so we have a structure in place, we communicate that and we assign it to the kids. They know we have a routine.

Kari thought that the structure and routines she had in her class directly affected the curriculum and instruction that took place.

Curriculum and instruction. Kari began her discussion of curriculum in her district by describing the agreed-upon materials for middle school English Language Arts. She used the SpringBoard curriculum as the core text, which is a pre-Advanced Placement curriculum for the middle grades. The district adopted the curriculum six years ago since it aligned with the Common Core Standards and was a college-readiness program. Kari related that SpringBoard was the “the starting point for
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everything that we do in the class.” She also commented that she did, “ sub the Greek and Latin roots….We can’t spend the time on it so it’s their homework, but they have to do it because I think it’s important.” She further said this about the SpringBoard adoption in her building:

It’s surprising to me the controversy that a curriculum can cause, because I think it doesn’t matter what you’re using. It matters—it matters what you do with it. It could be the world’s best curriculum but it’s what you do with your curriculum that makes a difference, not what you were given to use.

Kari said this about her abilities. She said:

[I have] a lot of experience adapting curriculum to fit a variety of needs because I used this curriculum when I taught in the resource classroom kids with writing disabilities with the very writing heavy curriculum. We were able to make it work, because it’s what you do with it.

Early in her career she also taught resource math for middle school as one of her classroom practice experiences. Her district had adopted new math curriculum called Connected Math. The approach of Connected Math was a discovery model, which was opposite from how she had learned math. She stated that her instructions were to open the lesson and then let the students explore math while hopefully arriving at the right conclusion. Parents were angry about the approach and voiced their concerns. She said, “that was a lot newer frame for me because I had to learn how to do that with kids who could do math skills at like a first, second, third grade level of math and so, but it was 7th grade, 8th grade math.”
Connected Math “challenge[ed] the way that I had been teaching, especially from when I first got hired and we had textbooks, it was just the same thing. It was just problems.”

She stated, “I had to learn a lot. And then we would have to as a group learn how to make that work with kids.” Having a new curriculum in Connected Math helped Kari “learn how to make an explore [exploration] type of environment in a structured setting, because it’s almost kind of a cancel each other out…That was very challenging for me, but it really redid—because it really was about a totally different way of teaching from what I had been [taught].”

Later she worked primarily in English Language Arts and added another experience to her classroom practice. Kari worked on a team at Lincoln, and worked heavily with the other teachers to develop a common writing language for the students. Kari said she adapted the *SpringBoard* curriculum to fit the needs of the kids while maintaining a common language with her team. She said, “I was able to actually adapt, I use some graphic organizers for writing essays or writing paragraphs that I then changed.” She stated she allowed some student who needed supports in the class to use the organizers, but also let those who were ready to write without them to do so. The *SpringBoard* curriculum is not a “one size fits all” curriculum in her class, so it was modified as needed.

She described that modifications came in many ways. Kari regularly recalled that she made changes between class periods based on the needs of the students. She had patterns of “typing up quick graphic organizers between classes” or “changing things a lot” when she evaluated the responses of her first period classes. She also thought it was her familiarity with the curriculum that helped her anticipate the students’ needs.
Kari desired “a healthy learning frustration level, where you don’t really know, but you feel that healthy frustration level of like ‘Oh, I got to find the answer out.’ But not to the point of that shut down.” In her classes she did not keep her example materials from one period to the next. She started over with each class. She stated:

Because every class is going to say it a little different or approach it different. So I don’t use the same material. I will have four stacks, one for each class because how we got to that differs. So I don’t want one master copy. I never have a master copy. We always do it as a group, because they’re—sometimes you know like the book has this answer, but that isn’t their answer, and they actually had a better answer… So I won’t use the answer key for something like that for my class, because I want us to wrestle through it together.

Students asked Kari if she grew tired of teaching the same thing all day. She seemed to enjoy the newness of each class and the variety she said, “they are different kids and they approach it different and they see it different, and it’s literature so you can interpret it different. So I try to make it unique for each class and a fresh approach for each class.” She said she differentiated for each unique class by way of time in groups, amount of homework, and expectations during independent work time. For example, Kari said that depending on the class, “we might read a piece of text as a group instead of independently.” She said that “if I feel like enough of them would not get it or don’t have enough readers to pair them up, or the text is really difficult we might read as a group.” She said, “Some of my classes can’t do group or peer work very well. They can’t so we just won’t.” In some classes, “It will just look different.” For example, “In
the honors classes we do more—you know because they are in honors they have more homework and they have more that they do and more that we get to.”

Homework in her class was regular and expected. She knew that her students could “just do more” if they completed the assigned homework. In her observations, the move from elementary school to middle school created a fractured environment for her students. She said that in elementary school you get “one classroom, you know who to contact, parents know who to contact. You get the folders that are put in the backpack with the homework. You get the weekly newsletter, or at least the monthly newsletter. Everything is contained in one location.” Contrast that to middle school where her instructional plans were impacted by the lack of work happening at the home. Kari thought this about homework: “I think we focus on the kids that don’t do it.” Even if she did not get 100% completion, she still continued to assign it and continued to expect it. “Organization would be something we face. Home/parent communication is something that we face,” recalled Kari when she discussed the challenges to she saw to her students’ success. In addition, she commented on her perceptions of middle school transitions, “We’re training them in a whole new environment so some of the things I think that we can view as deficits are just really things that they come in struggling with because it’s a new environment and a new system.”

**Classroom Practice: My Observations**

On the first day I observed Kari, I made my way to her classroom. I had interviewed her in another room at the school but had not yet been to her classroom. I walked down a hallway, which looked like many hallways in middle schools in America. There were lockers lining the path, yellowing lights above, and students
bumping into each other as they walked. I found Kari’s classroom during a passing period. The classroom had tables, not desks, for the students. The lights were off and the document camera and overhead were on. I observed posters on the wall from famous poets and one from the *Love and Logic* series. On several occasions I observed this seventh grade honors English class and took field notes on Kari’s instructional practices.

The physical classroom was unique in its storage capacity, but also unique in that it had two projection screens. I observed that one screen was on constantly during the class periods and listed the “To-Do” items for the day. Instructions were posted in bullet format near the day’s learning target. The second screen was used for teaching and broadcasted relevant material during the lessons.

**Structure and routine.** Since Kari’s room was located at the end of the hallway at Lincoln Middle School, there was much less noise compared to other classrooms. Kari’s classroom was in an older building, which was evidenced by the dated woodwork and peeling paint that canvassed the walls. Kari arranged her student tables in cooperative learning pods that accommodated four students per arrangement. The shelving units in the back of the room had a unique feature: they were equipped with over thirty drawers. Each student in this class was assigned a drawer for the year, which contained their regular class materials: curriculum notebooks called *SpringBoard* and a pencil. The room appeared to be organized in every way. There was a variety of visual material posted on the white boards, which included numerous reminders for the students.
There was a student teacher in the room, a university supervisor and a paraeducator. Kari led the class through the announcements and the flag salute and did so with all the fluorescent lights off.

I observed Kari tell her students what she expected from them in class on many occasions. On the occasions I observed her, she described what a learner looks like in class and what the behavior might and might not include. I heard Kari tell her students often to make “learning a priority.” Later in interviews, she explained that phrase is a school-wide mantra. This theme of learning as a priority was also included in her spring conference letter home to parents. In it she stated:

Our reasons for having students lead the conferences is that we have been working on student ownership of learning. We have focused on building the capacity of students to become competent, confident, independent, reflective learners.

I observed Kari’s structure of handing back papers when I observed her in the classroom. While she was passing back papers, I observed her take questions from students who kept stopping her movement in the classroom. Her practice was to ask students to solve their problems first and then come back to her. I also observed her ask the students to whisper later to her if something was not fair about the grade, but not interrupt the whole class for a personal question. Kari’s classroom rules support her practice as they are listed:

1. Feel free to do anything that doesn’t cause a problem for anyone else.
2. If you cause a problem, I will ask you to solve it.
3. If you can’t solve the problem, or choose not to, I will do something.
4. What I will do will depend on the special person and the special situation.

5. If you feel something is unfair, whisper to me, “I’m not sure that’s fair,” and we will talk about it.

Kari and a student teacher used a co-teaching model for a mini-lesson on one occasion I observed. The students learned by direct instruction for about 15 minutes and then had work time within their groups. Kari and the student teacher interrupted the students’ work to demonstrate another approach to the task when they started taking many questions on the same topic. On one occasion, the students learned about *dramatic effect, refrain, inference, and stanza*. After the lesson had concluded, Kari and the paraeducator sat with the students to continue working with them. There were extra chairs at the pods for the adults to sit.

**Curriculum and instruction.** Kari taught five periods of English to seventh and eighth graders. Her first two periods were honors English, both of which I observed in my time at Lincoln Middle School.

During one observation, Kari handed back Latin roots quizzes and gave the class a two-minute review time to prepare for the next quiz. She asked the class, “Do you want to replace your grade from last week?” The quiz prompted the students to write down the meaning of 25 roots. The last three questions asked them to write the meaning of an underlined word in a sentence that they could deduce from root contexts. At the same time, the student teacher handed back papers she had graded. While the students were studying, Kari said, “Do not attempt to cheat. Use the knowledge in your brain. I know you care. Turn that into studying. We are learning Greek and Latin roots so you can use them with unfamiliar words in science and history.” I observed
Kari speak to the students often. I heard her ask, “Do you need extra word lists?” and “Are you making learning a priority?” I also heard her say, “I keep testing the same words to make sure you know them.” She also asked them to speak up often in class. I observed a gentle volleying back and forth of discussion between teacher and students.

Not all the students, however, were in class when it began. A student who came in late interrupted the instructions. Kari looked up from teaching to address the student. The student spoke first and apologized. She said she was eating breakfast in the school cafeteria. Kari told the student it was “ok” that she was just coming in the door. She told the student to get her materials and to catch up with the rest of the class. The student found her SpringBoard book in her drawer and got to work. Kari used the document camera to support the directions she explained and asked the students to follow along in their SpringBoard books. She asked a student to read aloud and then for the students to discuss together at their tables. I observed that the students listened to the lesson and followed the directions broadcast on the screen because they began writing when prompted. When it came time to practice the skill of locating poetry elements independently, Kari and the paraeducator sat with the students during their work time, as was mentioned previously. The students moved from working in their SpringBoard texts to working on their drafts of short stories and poems. Kari asked the students “how far they had gotten” and what parts they had questions about so far. Kari answered questions that started with, “I don’t get how…” and examples like “Why can’t imagery be used as a poetic device?” Kari used a half-sheet of yellow paper to guide her conversations with the students. Each student had a copy. On it, Kari had a checklist for the students. It included the narrative elements they needed in their short
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stories and poems. It included: Sequence of Events (beginning, middle, end), Setting, Characters), Dialogue, and Imagery (smell, sight, taste, touch, and sound). She used these as prompts when talking with students to discern where they were in the process of writing their short stories and poems. When they spoke with Kari, the students were asked to use the words **dramatic effect, refrain, inference, and stanza** when they asked questions, as mentioned previously. Class was dismissed by the sound of a bell. No student stood up before dismissal. Several students stayed after the bell to talk to Kari. One student was going to be absent and wanted to know what work to begin for the class.

During another observation, I heard Kari tell her students “what I expect from you even though it is late spring.” She told the students that the “expectations needed to be revisited at this late time in the school year.” She again said she expected them “to make learning a priority” until the very last day of school. She described to them what making learning a priority looked like as she had done so many times. She said part of it was “paying attention to due dates,” so she showed them the common calendar on the document camera. She reminded them they had a copy of the same calendar in their *SpringBoard* books. Kari highlighted the calendar on the document camera and had the major due dates highlighted for the students to see. I observed that the students followed along because they began writing on their calendars. She used a similar teaching technique as she did in another observation. This time, however, she made use of the double screens in the classroom. She had the permanent instructions on one side and was able to move around the lesson materials on the second screen. Kari again used techniques of students reading aloud, asking questions, whole class
work time, and independent work time. During the independent time, Kari answered questions from students. They asked, “How to turn the short story into a poem” and “Why they had to turn in two copies of the story.” One student was unable to find a pencil. She asked the student “How are you going to solve the problem?” as she often had in my observations. This time, she offered the student an idea to “look on the floor” because there “are always pencils on the floor.” He also came up with several solutions and returned to his seat.

During a later lesson on narrative writing, a female student seated in the back of the room began talking during instruction and then told her tablemates to “Shut up.” The paraeducator went over to the table and quieted the girl. I observed no off-task behavior from the girl for the rest of the class. She was able to get back on task until the bell rang and class was dismissed.

**Contextual Factors**

**Vision for teaching.** Kari held fast to the school-wide mantra that her students should “make learning a priority.” Her vision for teaching included an emphasis on developmental appropriateness for “making learning a priority though.” She commented:

> You know the sticky—the part in your brain that’s supposed to get that stuck? A lot of times it’s not very sticky for kids with learning disabilities until there’s just that. Like they can relearn the information and relearn it, but I wanted to teach it in more of a developmental context.

When asked about what was important to her in education, Kari commented on what was important in middle school specifically. She said that, “I think kids need to feel
safe, they need to feel respected and they need to feel like they’re able to learn.” Kari wanted to build a safe community for her students. She commented that:

When kids walk in my door I want them to know that they are capable of learning, that it’s a safe environment they can give an answer and have it be wrong and that’s okay. It’s about doing your best. It’s about trying and it’s about learning.

The safe community supported the idea of making learning a priority for Kari’s students. She thought that kids could do anything if their learning environment supported them. She stated:

[If kids could] have the tools to learn, then they could go to high school and be successful, they could go to college and be successful. They could get their GED and be successful. They could get on the job and be successful. It’s more the mindset of who they are as a person if they view themselves as a learner, and then the world is open to them.

Kari shared her vision for students enabled them to be successful in the future. She said, “They’re not stuck in whatever situation they’re in because they have options, because they’re capable of making change whatever it is.” She reported teaching problem solving on a daily basis. She commented that the students made excuses and did not own their choices. She shifted the excuse making into problem solving. She connected not finding a pencil today to not being able to secure a job tomorrow. She asked her students questions and pushed them into solving problems. Kari commented:

That then goes beyond life, like well I want to—this job, but I don’t have the training for it. Okay well then how are you going to go about getting the
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training for it? Do you have to go to school? I mean to get to school what do you have to do? You have to fill out an application, you have to do all this stuff. Well, I don’t have the money. True but are there sources for funding?

Can you do that? You know how do you approach that?

She stated she did not accept excuses, but instead accepted solutions to problems. She said that seemed small but “It’s small things about that we work on now, but way bigger of a situation the further on you go into life.”

Kari was willing to walk through life with her students for longer than many teachers do. She concluded with her discussion of philosophy by commenting on the practice of looping. Kari and her team made looping a practice for the last several years. She stated “that it’s a totally different perspective if you know you’ve got them for two years; then you’re [not] just making it through nine months.” Kari shared this and more during her three interviews.

Equity issues in the classroom. Lincoln Middle School had an 84.4% free and reduced lunch rate at the time the interviews and observations were conducted. Kari said she created her instructional vision based on the needs of her students. As stated previously, she commented that she did not understand the curriculum wars in the district. She modified and adjusted her SpringBoard curriculum to accommodate her kids’ needs. Kari stated that she did not “think there’s an inequality” in the curriculum provided to the many schools in the district. Because her school in particular is a Title I school, they had access to funding sources that regular schools did not. She commented:
actually this is an inequality that really benefits us, is that we have title money. Because we have—and this is one of the reasons why I love to teach here, one of the reasons I have always loved to teach here, because I love learning and I love doing new things and we have so much more money than some schools to go to trainings to do creative things, to learn new things.

She said that because their kids need more, they are supported more in their classrooms. She commented that, “Lincoln has some of the best trained professionals ever.”

In her own classroom, Kari reported to keep her expectations consistent. Problem-solving exercises applied to everyone, no matter at which developmental stage a student entered her classroom. Kari celebrated growth and milestones for every student in the class to reinforce moving forward, not expecting all students to arrive at the same spot. She took into consideration extenuating circumstances, but kept the goal that every student would grow. She reflected:

So if there just is special circumstances where kids need to be—to get a little bit more and we can’t say that you know the kid in crisis or trauma that that is not something that has to be dealt with. That is something that has to be dealt with so there’s that real lesson, too, that there are circumstances too that sometimes we have to address first before the learning.

In her final comments, Kari spoke about her school’s PTO. At the time of the interview, the PTO was active in raising money and had a presence in the school. It had not, however, always been that way. In the years past, Kari noticed the level of parent involvement “meant a lot more opportunities for kids.” She said she saw
inequity in those opportunities for kids that may be just two miles down the road from one another. The funding made all the difference.

**Vivianne’s Story**

Down the hall from colleague Rebecca Kezzap, I found the classroom of sixth grade teacher, Vivianne Lark. I interviewed Vivianne on three separate occasions. As with the other case studies, Vivianne shared her biography in the first interview.

**Schooling and Professional Coursework**

Vivianne Lark was a military “brat” and the oldest of four children. She had one sister and two brothers. She said, “I practically raised my baby brother” since he was 11 ½ years younger than she. Her father was in the Air Force and worked for the National Security Agency, so she lived all over the world. She was born in San Antonio, Texas, but lived in “Turkey, Japan, and several different states, including Alaska.” Vivianne spoke about her parents and the life of a military family. She said:

My mom was a stay at home mom, extremely intelligent lady, and she worked in the home until we were grown… Then she went to the banking world and she became a vice president of Wells Fargo Bank. So she was a stay at home mom for many, many years but it didn’t stop her from reaching really high in the business arena.

Vivianne described her father as, “gentle and kind and not the Air Force type at all. Very, very, very cool guy and he loved baseball just like me.” Vivianne’s father was “very poor” growing up and “one of seven kids, no money at all and during the depression. So, he knew what he had.”
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Vivianne remembered her parents desires for her schooling. “My dad wanted me to be a doctor, and my mom just wanted me to be happy. But they just—‘ah you don’t want to be a teacher you know, they don’t make any money. You don’t want to be a teacher; you got a brain; you could use it.’” Vivianne did not set out to be a teacher either. She said, “I don’t have any teachers in my family.” She graduated from State College where she studied French and even lived in France for one year of college. She intended to teach college-level French for a career.

In college, however, she met and “married an Air Force guy.” Her plans to teach French “all went away” and “[she] had babies” and “moved here.” She has been in the city of Columbia ever since. Vivianne shared that her husband “was killed in a plane crash 14 years ago.” Vivianne remembered:

[I] was working as a paraeducator just part time because my kids were coming to school. I loved it and it was so much fun. I worked with special ed., and I just decided that I loved it. It was like so great to come to work every day and to just be able to see the growth in those kids and make a difference. And when I lost him, I knew I had to support my family.

Her principal pulled her aside after the tragic crash and said, “You know what you have to do. You have to be a teacher.” One month after her husband’s death, Vivianne enrolled in River University in the evening. She already had a bachelor’s degree in French, so she only needed the some additional courses to be certificated as a K-8 teacher. She graduated quickly and secured her first teaching job. It was in her present school’s pre-school program, which was run in conjunction with the local ESD. When a first grade position opened up the following year, Vivianne applied and got the job.
A few years later, her principal asked, “How would you like to teach 6th grade?” Vivianne responded with, “Are you joking me?” She ultimately agreed to take the sixth grade position to challenge herself and has held it since then. During her tenure at Pierce Harbor Elementary, she went back to River University and earned her master’s degree alongside colleague who decided to go back for his degree, too.

Looking back at her schooling, Vivianne recalled her favorite teacher in school. She said it was “pretty easy” to choose which one was her favorite. Mr. Schrambaugh taught her high school French and “got her turned on to French.” He was the reason why she studied abroad and studied French in college. She said, “I just wanted to be really good at it, and I don’t really know why, except he just, just you know was so enthusiastic about his subject that I think it was contagious and that’s what I try to be.”

Vivianne easily recalled her least favorite teacher, too. She said she could not remember his real name; however, the students called him “Lizard” because “of the way he used to lick his nose.” “Lizard” was her 7th grade science teacher. Vivianne remembered thinking,

He didn’t act like he wanted to be where he was. He just stood up there and gave us information. Told us to read the book, and gave us handouts, fill in the blanks, matching you know and as far as experiments all we did was write them up. We never actually did them. And I just remembered thinking this was a waste of my time.

She said, “I really hoped that I would never turn into that, because that’s the time when you stop teaching. It really is! If you don’t love what you’re doing anymore and you can’t bring the energy, you need to stay home.”
Classroom Practice: Vivianne’s Perceptions

Structure and routine. Vivianne said she tried “to keep her instruction time short” so they could spend the time practicing the desired skill. She said that she does not take questions during her instructional time, but required the students to wait until she asked, “Are there any questions?” She said, “The only thing you’re thinking about is your question. You stopped listening at that point and you’re thinking ‘I don’t want to forget my question…’ and I may have answered your question and you didn’t even know it.” Vivianne said:

I think routines are important no matter where you are, but I think you tailor the routines to the group you have. There are years where I don’t have as many regimented routines as I do this year, and that is because there is some years where the people, where the kids—students are able to extrapolate.

Part of the practice of Vivianne’s classroom was the writing workshop format as mentioned previously. Vivianne said,

I’m constantly pulling groups of kids, or small groups of kids, or single kids over to talk about what they are writing and what their goal is for next time. That’s probably my biggest and I like that because I am blessed to be a single content area teacher right now. I can do that three times a day and tailor each rotation to the kids in the rotation.

Vivianne spoke of “tailoring” her instruction to meet the needs of the kids in the room many times while I interviewed her. I read an example of that “tailoring” in a document Vivianne shared with me. She used a rubric with the students for their writing during a unit on argumentation. In one category, “content, organization, and
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style” the rubric read, “My writing shows: A strong ability to explain the importance of 
the evidence presented.” This was the description of the top score. Vivianne said to 
earn that category on an essay a student has to highlight that particular example in the 
writing. Therefore, each student in the class could receive a unique set of descriptions 
since no two essays are the same.

Curriculum and instruction. Vivianne also taught social studies to her students, but 
her colleagues shared the rest of the content responsibilities. In social studies, Vivianne 
used the Jamer Journey interactive simulations. She explained:

We use their Greek and Roman, and their Egyptian interactive simulations to 
teach social studies and it's just project based learning. It’s learning through 
doing, it’s extremely interactive and it holds their focus, it engages them and 
they end up with a decent product at the end.

Vivianne explained that she modified the interactive simulations as well as the writing 
tasks for her students. She said:

I take my conferences as my base for modification. So when a child does a 
piece of work for me and we confer about that. We look at the rubric and we 
look at the work, and they will say ‘Well I know I did really well on this and I 
say ‘show it to me, prove it to me,’ So, they take a highlighter and they 
highlight their work where they did that. So, I say ‘okay, look at the rubric, did 
you meet that expectation?’

Vivianne met with her students, looked at the writing, and then worked with them to set 
goals. Each student had individualized goals. Vivianne said, “My modification is 
mostly goal setting, conference, goal setting, back and forth.” She put their goals in “I
can statements.” Vivianne said, “This is letting them know this is not a choice. Your target is to be able to do that, but you need it, it is not—not this fluff, I think I can do this.”

Her school had a high ELL population as well as many students with IEPs and 504 plans. She said:

Modification for IEP’s or ELL, that’s a different ball game. I have actually-- when I do my whole group lessons I try a lot of times to use picture clues as far as especially with vocabulary. I find that when they have non-verbal clues with vocabulary it helps everybody, not just my ELL kids and or even my IEP kids. The vocabulary demands were something that Vivianne included in her modifications. She explained, “Their academic vocabulary is very low and so that’s the one that I really choose to work on with a lot of them because they pick up the playground language a lot easier, but it’s the vocabulary-- the academic vocabulary --that’s difficult for them.” Vivianne elaborated, “And it’s almost like I have an individual plan for every student in my classroom, but that’s the way it should be because if you’re—I don’t know.” While she walked through the class during workshop times, she noticed things the whole time the students worked. She said that their writing was so “personal” that it had to be that way. While she circulated during workshop, she was able to catch anyone off track. She described her role:

Making sure that there is nobody sitting there afraid to ask a question, not sure they understand, or worse yet somebody doing an entire paper and realizing that they weren’t on topic...All that work and all that effort and finding out that wasn’t what I needed them to write about.
During workshop time in writing and in social studies, Vivianne used her “traveling chair.” She said, “[I] get my chair out and I wheel it around to the tables and I sit at the end of the table…if they have any issues we have a safe atmosphere in here where we—work on that from the beginning of the year all the way through.” She commented, “I will give them some coaching, the other kids will give them some coaching and off we go.”

Vivianne explained that she modified curriculum in other ways, oftentimes “during” the lesson itself. She said:

I change my lesson plans depending on the kids, depending on you know what they need all the time. So I evaluate, especially ones that I have to create myself where I have to—you know I like to preview the information for them to give them especially with this demographic there’s not a whole lot of knowledge about a lot of stuff. They don’t have a lot of experiences outside of school and home.

During the lessons, Vivianne explained that one of her classroom practices was that she watched the students constantly to determine if modifications were needed on the spot. She asked herself,

Are they engaged? Am I losing somebody? What kinds of questions am I getting? Am I getting superficial, kind of listening questions, or am I getting—am I asking probing questions? Or am I asking superficial questions? The parts I modify the most are the questions I ask; I want to ask deeper questions.

Typically when the lesson was over, Vivianne said she “generally” wrote on the lesson plan itself. She commented, “If I’m going to use the lesson again, I write for next time.
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That’s at the bottom of all of my lesson plans. For next time, do this differently, change this, figure this out, ask this question, depending on how it goes.”

Classroom Practice: My Observations

The elementary school, Pierce Harbor, was located in a lower income part of Columbia. The school was part of a more affluent district, but recent boundary changes had put most of the district’s apartments and multi-family units in the same K-6 school. In addition to that, Vivianne said:

They [the county] changed the zoning across the way to multi-family residential instead of light industrial and when that happened they put a whole bunch of apartments around here and the demographics here at Josiah changed drastically.

The school looked like most of the other buildings in the district. It was moderately worn on the outside, but boasted a well-manicured green space filled with playground equipment and foursquare markings.

When I entered the building, office personnel greeted me immediately. The administrative assistant asked whom I was there to see and if I would sign in. She directed me to Vivianne’s classroom. She said, “It’s the orange room. You can’t miss it.” I took a wrong turn and missed it entirely. When I stopped another staff member to ask for directions, she said, “It’s the orange one down this hall. You can’t miss it.”

Indeed the room was orange. I discovered Vivianne’s room at the end of a hallway. It was the bright orange countertops and orange cupboards that I noticed first. I then observed orange curtains and orange table skirts, which covered up teaching materials from years past. The tables in the classroom were also orange and arranged
in a long, conference-style format. Vivianne told me later she used “writer’s workshop every day,” so I observed the layout was conducive to that. Vivianne said, “I don’t know how you teach writing any other way.”

The classroom held what appeared to be two teacher desks. One desk was for Vivianne and her teaching materials. The other was for conferencing with students about their writing. Vivianne said, “We go through [the writing], we look for the target, we do the highlighting, and we do the goal setting and that’s basically the conference.”

In addition to the tables, the classroom held a rocking chair and 11 lamps. An observer might call the room homey or cozy. Vivianne maintained a quiet, gentle voice on every occasion that I observed.

Structure and routine. Vivianne Lark was part of a three-person team of sixth grade teachers. Vivianne taught with two male colleagues. The team agreed to divide the content-area responsibilities among themselves and had their students rotate during the day. What that meant for Vivianne was that she started her day with her 30 students, but quickly dismissed them to their next class. The students were ability grouped for math, literacy, and science.

I sat at the side of the class and watched Vivianne welcome the students for the day. After the announcements were made on the intercom, she said, “Good morning!” The class responded with, “Good morning, Mrs. Lark!” Vivianne then asked the table captains, “Table 1. Is anyone absent?” She heard a “yes,” so she asked, “Please give me the name.” Then she asked, “Table 2. Is anyone absent?” She moved to each table in this manner and finished attendance quickly.
Within 15 minutes of the opening bell, the classes had already rotated and a new group was seated in Vivianne’s room. Vivianne taught literacy all day. The students had assigned seats even though they were present only for the literacy block of time. After they were seated, Vivianne went to the front of the room and began her lesson, as was her routine each time I observed. The tables for students were equipped with a monitor at each end, six total. The monitors on the tables showed what Vivianne broadcasted from up front. Each table could look at a closer view of the teaching material instead of constantly looking to the front.

Vivianne showed a sample letter to the students during one lesson. Her students were learning to write letters. She chose to have them write letters to seniors in the district who were about to graduate. The sixth grade students told the seniors how important they were and asked them to celebrate safely on their graduation night. Each sixth grader had a laptop, a flash drive, and a letter in process on this particular observation.

On each day I observed her classroom practices, Vivianne turned on quiet music once they were settled and started working. She asked, “Will the piano music distract anyone working?” She had one student who said that yes, the music was distracting. She told that student to “wear headphones” to muffle the sound.

Each time I observed her in her classroom, Vivianne kept moving. She made a practice of circulating through the room and communicating the purpose of the letters. She made comments like, “Remember, these get delivered to real seniors before graduation” and “Use details about yourself that are interesting.” She moved around the classroom and only stopped when students had specific questions for her. Vivianne
addressed students by their names, starting sentences with, “Devon, Michelle, and Nathan.” In lieu of their names, I heard her say, “sweetie, sweetheart, and kiddo.” No students got out of their seats when I observed the class. They wrote for nearly the entire time, which was 90 minutes.

Close to the end of the literacy block, Vivianne had the students share. She asked them to “finish up what they were doing” and listen to the other students reading. She told me later she prohibits talking when someone else is talking. I observed students were and listening when others spoke in class. After a student read, Vivianne complimented for each student, the specifics of which I did not record.

I observed Vivianne’s classroom practices to be organized and systematic. There appeared to be a procedure for everything asked of the students. When questioned about her routines, Vivianne said:

They have routines of how they walk into the classroom; they have routines for what they do when they get here; they walk in, they go to their tables first, they take off their backpacks and stuff at their tables, and then they go and hang up what they need to in the closet.

Procedures were in place for those entering the classroom. She also said:

They have procedures and expectations for noise level, volume level at all times and even when we are relaxed and having a music playing and we’re just working on illustrations there is still volume. We have procedures; we do the PBIS where they line up in ABC order, just because that takes out of the equation all the ‘he cut, she cut…’
During instructional time, Vivianne had procedures in place for how students accessed supplies they needed. She said:

I have strategically placed supplies around the classroom and they know when they are allowed to access those supplies and they know what those supplies—where each of those supplies they needs is. The sign out sheet is back here by the door so it’s easy access if they need to use the restroom. Their pencil sharpeners are back there; they know that there’s no chance to use a pencil sharpener while I’m giving instruction time.

Curriculum and instruction. Vivianne taught literacy all day to sixth graders as her practice at the time of the interviews and observations. I asked her about the adopted curriculum in the building and the general instruction expected of her in sixth grade. The building used “Lucy Calkins, but it’s adopted K-5 because that’s what her program is.” Vivianne said,

I adore Lucy Calkins. I came from first and second grade to 6th grade three years ago and I really enjoy bringing some of that with me. Lucy, her structure for workshop is impeccable; it’s amazing. I use it every day all the time, and it works just as well with intermediate kids as primary kids. In fact the conversations that you can have with intermediate kids and their writing is really important; in fact, it is probably the most important part of my writing curriculum.

Vivianne explained that each year she started with the “small moments” strategy. She asked her students to narrow their focus to one small moment of their summer to begin writing. She moved them to “use descriptive writing and how we can get more
focused.” She said the only guidance she had for her writing curriculum was Lucy Calkins’ materials. She said she “is looking at Common Core and trying to find things that will fit.” Vivianne explained that she was “constantly researching, constantly looking for the leaders in the argument writing field. What do they say? Most of the argument writing has been written for middle school and above children because that’s where they usually do it.” Part of her sixth grade requirements was teaching argumentation, but she had no formal curriculum for that. When she found her own resources, she said she had to change it. Vivianne stated that she, “adapted a little bit for my kids, but what I really want them to get—and what our kids are missing is critical thinking skills.” She said, “I’m laying the groundwork for that later expertise by teaching them, ‘How do you evaluate the sources?’” she asked them often. “Is everything on the Internet a great source to cite? And then when you do cite a source, how do you do that?” Vivianne commented that most of her students are not at benchmark when they arrive in September, but they make great growth each year because she “works together with special ed. We all work together on their goals all the time.”

**Contextual Factors**

**Vision for teaching.** Vivianne identified the three “Rs” in her building as rigor, relationships, and relevance. She said, “They’re all important for different reasons, but I think here without the relationship part I don’t know how you do your job. You have to get them to want to be here.” Vivianne explained that many of the students at Pierce Harbor do not stay for all of K-6 grades and that context affects her practice. She explained that, for whatever reason, “right around 4th grade we lose a lot of kids.”
moving out of the area. She said, “I would like to see us—I would like to know I guess with more of our kids the difference that our primary teachers are making, so I could see what they came with. It’s like if we could have a kid from kindergarten all the way through—our building is strong.” Many students leave and many new students enter the building every year. Vivianne commented that she could not see the actual impact the primary teachers have on the older students because of that. Vivianne explained that she desired to have those relationships and have “more of our own kids as far as when I was in primary.” She explained that she wished the same students who attended Piece Harbor in the primary grades stayed to attend in the older grades, too.

One way she built relationships was through hosting a summer book club for her students. She has had the same students since second grade who are now in high school in this book club. They met weekly at a local coffee shop in the summer. The parents “usually got a cup of coffee and waited” while Vivianne led the kids through a chapter of a book. Vivianne said, “I always buy the books for them. That’s what I do; that’s my contribution is I buy the books and then they get to keep them, so there you go.”

Vivianne shared that many colleagues in her building “really care about” kids. She worked “well together with her team” and “sometimes pray[ed] together.” She said, “We know why we’re here and we feel called here.” She commented, “While we can’t share that faith with our students, we can share by example so that’s what we do.” Part of her vision of a calling was that she wants her students to be the “best that they can be.” She said, “We may have 30 kids, but we have 30 individual kids; we don’t have a class of 30; we have individual kids.” Along with that, Vivianne considered her students to be “clients.” She said, “It’s important that each client is satisfied and that
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means that they have made the most possible growth they could make in one school year."

**Equity issues in the classroom.** As mentioned in Rebecca’s story, Pierce Harbor Elementary had a 79% free and reduced lunch rate at the time that the interviews and observations were conducted. This context affects Vivianne’s practice. In Vivianne’s words, there are “issues” and “we do struggle with it.” Specifically, Vivianne commented on the “opportunities that we can offer our students because of the affordability factor.” Her sixth grade team took kids to an overnight camp at a cost of $38 per student. She was “finding scholarships for camp for [those] who can’t afford the $38” at the time of the interviews. This elementary school had the highest free and reduced lunch rate in the district. Just three miles away, the sixth graders at a neighboring elementary school “go to a five-day Seattle camp that costs $600 a student.” Vivianne said, “You know there are issues within this district and they always say that there aren’t but there are, but I work here, I know.”

Another example was the computer-on-wheels (COW) carts her school used. She commented, “We have one COW cart right, and everything is dying on it, and there’s another school that has three and they are all brand new.” The same school with the new computers was the school with the $600 camp. It was a large problem without an easy solution. Vivianne commented:

PTSO is a huge problem in my mind, because our PTSO doesn’t have the funds that the other PTSO’s do; and yet, when we talk about sharing funds across the district and dividing them equally, nobody wants that because then the people are not going to pay into it if they think their kids aren’t going to get it.
In response to that reality, Vivianne explained how she spent a lot of her own money on her classroom because “I want it for my kids if I can get it for them.” She has had to ask the administration for help with some resources that were beyond her capacity. She said:

I really want a washer and dryer in this building and I want a station that’s set up with kids’ toothbrushes and things so that they can help take care of themselves because that’s another issue. When you get to the 6th grade your body odor makes a difference, and you can be ostracized.

Vivianne wanted to “wash their clothes for them” and “get them back to them by the end of the day.” She said, “That’s what I would do.” Vivianne explained that she desired to have a closet available for students to borrow clothes while theirs were being washed. Her plans continued with the students’ dental health. She explained:

Some of them have really, really poor dental health, which causes them to miss school because they have toothaches; they have cavities; they have you know teeth falling out and so actually we have Tooth Savers that comes to us. They set up their little dental chair in one of the offices and they see kids that are underprivileged. Tooth Savers, said Vivianne, cannot see all the children in the building though. When Vivianne taught second grade, she equipped her classroom with, “tooth brushes, tooth paste; they had their own little Spiderman toothbrushes and they would come and they would brush their teeth at school with me, because they wouldn’t do it at home; they didn’t have anything to do it with.” Vivianne commented that her “male colleagues don’t handle things the same way I do.” She said, “Maybe that’s the mothering in me,
maybe it’s just because I started in primary and moved up. I don’t know which one is more prevalent, but I know that these are kids.”

Vivianne said there was a family she would remember forever. She said they were an “exemplary family.” Both parents “lost their jobs this year” and they “don’t have a lot of money.” She said, “They are a model family and how they handle their kids, their responsibilities...So your circumstances are not an excuse for your behavior and they are also not always the reason for your behavior.” Vivianne commented in closing, “So just because someone is underprivileged or poor or you know impoverished or whatever that doesn’t necessarily mean that they are anything, it just is a part of their story.”

**Tyler’s Story**

I met Tyler Flanigan while he served as the talented and gifted teacher in the Timber School District. Tyler had taught in the same district at its lowest income school prior to becoming a teacher on special assignment for gifted and talented. In that position, Tyler traveled to all eight of the district’s elementary schools each week, working with the identified students in a pull out program. He met with small groups of students in creative locations in the schools, to work on critical thinking skills and complex projects. At the time of the interviews, Tyler had resigned his position in the talented and gifted program to return to the general education classroom. He told me he could not change the system for the better, so he left. His new assignment was in a sixth grade class at Plateau Heights.

Data collected from Tyler included interviews about his perceptions of his classroom practices. Since he had a traveling classroom during the school year of the
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interviews, his interviews were limited to his previous five years at a low-SES school. Tyler’s comments refer to his time at Pierce Harbor Elementary, where he taught alongside colleagues Rebecca Kezzap and Vivianne Lark. Since Tyler served in a low-income school for five years prior to the interview, his experiences were deemed rich and of great value to this research project. They also aligned with the criteria for a local knowledge case study.

Schooling and Professional Coursework

Although he found his eventual home on the east side of the state, Tyler started life on the west side. Both of his parents worked full-time when he was a child. His father “worked the night shift” at an aerospace manufacturer and his mother “worked as a medical records clerk” for a large HMO. Prior to that, his father had been “drafted to play professional baseball for Cincinnati right out of high school.” He played for a time and decided he wanted to go to college, but “partied his way out by November and never made it through his freshman year.” Tyler said that hearing the “student-athlete speech” about the importance of academic success was a regular event in his home.

Tyler’s father went back to school when Tyler was just a toddler and graduated in business. Tyler’s history of schooling was influenced first by his father. Tyler shared that his parents “worked hard” while their children were young. They were both gone to work before he and his older brother got up for the day and returned home near dinnertime. The family “lived in a single wide trailer.” Tyler’s mother never went to college but had a successful career in the medical records field. Tyler’s father worked his way up in the aerospace manufacturing business to become a vice-president. He
was transferred to the Columbia area when a new factory opened. A few years later, he went back to school and earned an MBA from Stanford. Tyler explained:

He now runs an international business with a group in Rome. He’s kind of an efficiency expert so he moves; he only stays with the business for three or four years and then moves to another one. And so now they [his parents] split their time between Phoenix and Rome.

Tyler commented, “We don’t ever really see my parents, which has been interesting because it was a source of an issue between my mom and her parents when we were growing up.”

Tyler has one brother, Carson, who is 15 months older than Tyler. Tyler said:

We did not have a good childhood relationship because we were so close. In age we were 15 months apart, and we played everything the same, and so I don’t think we said more than five or six words to each other the whole time we were in high school. Nobody we went to high school with knew that we were brothers.

Tyler explained more about his brother’s experience in high school. Tyler said:

He had a terrible experience in school. He was an all-state basketball player at Mt. Columbia and he did fine with that, but he was dyslexic and didn’t find that out until he went to college…And so he got, he struggled through getting grades like 2.3, 2.4, 2.5 GPA and always did really well with math and science.

His brother continued to struggle in reading-intensive classes though. It wasn’t until he was in college that someone asked him, “‘Have you ever thought of looking into if you’re dyslexic or not?’ And he said, ‘No.’ And they found out he was and he can’t
read for more than 20 minutes at a time until his eyes get too tired and his brain stops process words and things like that.” Tyler said, “He actually has a master’s degree in biochemistry and bio-technology now.” Carson works in southern California doing cancer research, and was just married one year ago. Tyler said, “[It] was awesome.”

At the time of the interviews, Tyler said they now talk “all the time.” He said his brother had “softened quite a bit” and “it’s been easier to get to know each other.”

The brothers shared a love for sports. Tyler explained that Carson played basketball, and Tyler played “basketball, football and baseball all the way through.

Tyler said, “Love sports, thought it was going to be what I was going to do. Got to senior year of high school and blew out my hamstring and didn’t play that whole year; all of the offers for anything to do after that went away.” He remembered his father prompted him to take a more specialized modern language in high school, so he took Japanese. By his freshman year of college, he was in the sixth year of Japanese.

Couple that interest in Japan with business, and Tyler thought he “would be an international business major.” He said, “I knew long term that business meant being away from family and my dad traveled a lot. And so he was gone probably 40% of the time just traveling, and so because I had been dating my girlfriend since freshman year of high school…. Tyler married his high school girlfriend right after college. They have a two-year-old daughter. In college Tyler found that he “hated business classes” and ended up in education because of a job he got with his roommate to tutor kids at an elementary school. He commented:

I walked away the first day like ‘Oh this was a ton of fun, I like that.’ I will keep doing this for a year, keep making some money and keep taking my random
classes and by February of that year I was hooked and wanted to do it. Loved being in the school, loved being around kids.

In terms of his professional coursework, Tyler graduated from college with a certificate in elementary education and endorsements in reading and math. His first job was back at his own elementary school, where his former teachers were now colleagues. He recalled his interview for the teaching job; the interview was casual. The interview team asked, ‘“How is baseball going? Do you like coaching? Do you want to work here?’ And so that was the bulk of my interview; they basically said you interviewed for seven years while you were here and so you’re welcome to have the job.” Tyler recalled being “exhausted” during the first year of teaching, and “doubting” if he wanted to teach based on “how hard the first year was.” Tyler worked on a one-year contract for leave replacement that year. He looked for jobs after that year in the same district. He ultimately was called to interview at Pierce Harbor and spent the next five years there working in a low-income demographic.

Tyler recalled his favorite teacher from school: Mr. Sugar. Tyler said, “because I spent so much time with him.” Mr. Sugar was a math teacher at Mt. Columbia and Tyler’s baseball coach for several years. Tyler said:

[Mr. Sugar] was a different definition of a Christian man for me because he was still strong about things and not passive, not a very passive person in the sense that he knows what he wants you to do and he’s willing to kind of do whatever and he’ll be there until 6 in the morning or 8 o’clock at night, or whatever. Mr. Sugar had an effect on Tyler’s future career working with students. Tyler commented, “You are going to get what I want you to get mentality that I think
has kind of bled over into me in different parts of the way I work with kids. And so I appreciate that as kind of his gift to me, I guess, through baseball.”

Tyler’s least favorite teacher was still employed in the Timber School District at the time of the interviews. He described his sixth grade teacher as “the worst teacher I had ever had. And he was very mean, very derogatory to kids, would discipline kids by putting them in trashcans and hanging them up on clothes hangers and stuff like that.”

Tyler remembered this experience:

I think it was, there was a sense from him that it was never about us learning things; it was about him putting in time so he could find something to do. He always talked about coaching outside of school. He said some extremely inappropriate things to the girls in our class and from what I hear, still does to girls in middle school.

Tyler remembered the teacher made comments to the students with IEPs. The teacher said, “Why don’t you put your book away because you could never learn this anyways so just take a nap while we do math.” Tyler recalled, “I thought if I was ever going to be a teacher I would teach sixth grade and do it differently because of that just terrible experience that kids have to go through.”

**Classroom Practice: Tyler’s Perceptions**

**Structure and routine.** Tyler explained, “routine for me is everything.” He found “comfort” in routine in his classroom practices and commented on that being related to being the son of a former Marine. Tyler said,

I can anticipate what’s happening. And a lot of these kids and their background can’t. You see that very clearly that they have a hard time getting to know you
because they’re not sure you’re going to be around, or they’re going to be around, or they’re going to move, or they’ve been in seven schools or whatever. So, from the first day, Tyler established routines as part of his classroom practice. He said the schedule was always written on the board and “it rarely changes.” He commented, “And so for me it’s very important to establish ‘I’m here; my job is this;’ I’m willing to do this for you if you’re willing to do this back for me.” Occasionally, Tyler had to be out of the building and call in a substitute teacher. He identified the kids who might have trouble with his absence early on. He said, “I especially let those kids know three days in advance, ‘Hey I’m going to be gone for a day, because I have a sub coming. I know this person; we’ve talked; they’re good; we talked about you.’” He said talking with the kids prior to his absences allowed the students to “decompress” and it “made more of a safe environment for them.”

In his perception, the routine he followed did stay close to the same every day. For sixth graders, Tyler thought that he stood “between 5th grade, which is very much elementary” and a seventh grade, which was a “middle school experience where you are out and you are gone and you are in the mass of kids.” Tyler commented,

So I think for us, creating a routine where you have your stuff ready to go, you are responsible for your things, you are responsible for remembering what you have for homework, that’s nobody else’s job. If you miss something it’s your responsibility to come talk to me. If you don’t understand anything, it’s your responsibility to come talk to me or somebody else.

Tyler pushed ownership “hard” in his sixth grade class so they could “master that by high school.”
Part of the structure of Tyler’s room included a plan for all the services his students received. Each year, he had students who needed ELL, special education, and title services. Tyler explained the structure of his day and how it could “eliminate the stigma” for kids receiving those services. He shared:

We packed our other two rotations so we would have less kids in our low group. And so when they started, the whole class started with me and the first half hour everybody was with me and then when I said, ‘okay we are going to our small groups,’ they just left. And so they just went to their groups and nobody knew the difference. So it’s not like you’re getting up in the middle of class and go to math now, ‘go to special ed.,’ because you can’t do math with us.

Tyler used the word “sequential” to describe his classroom style. For example, when he taught about “democracy,” he said they “needed to understand the foundation” and “not that they just came up with this great idea.” He said, “I think a schedule and keeping consistency is very important for kids. Yeah, it allows them to compound their learning whether it’s math or whatever.”

**Curriculum and instruction.** While Tyler was teaching sixth grade, he taught the language arts block during rotations. He said, “There wasn't any assigned curriculum we were required to use. It was pretty much pieced together with things I begged, borrowed, and stole from other people.” During his last year, the Timber School District went through a curriculum adoption. As a member of the committee, Tyler agreed to pilot McGraw Hill *Treasures.* Tyler commented,

Despite my consistent arguments against a basal reader, they decided to go with
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My preference would have been to have the district purchase social studies and science textbooks to support the content we were supposed to teach and supply my class with novels we could have used for lit. circles or whole class novel studies.

Tyler said, “I honestly walked into my classroom to teach writing my first year and was told there was no writing curriculum in the district. My principal told me I was going to have to create everything I was going to use.” Tyler was brand new and expected to prepare the students for the end-of-the-year state assessment. Without materials, he commented, “That was not a really a good decision when you hire someone who has never taught writing before.”

Tyler described his literacy curriculum as a “mixture.” Many items were purchased through grants he wrote. These materials included: Junior Scholastic magazines, novels for book studies (The Lightning Thief, The Giver, A Wrinkle in Time, and Number the Stars), 13 iPod Touches, and six iPod Nanos for audio books. Since he did not have any social studies curriculum to use during literacy block, he purchased McGraw Hill Our World Social Studies with his own money. The district supplied workbooks for daily reading instruction and a class set of books on Greek gods.

Tyler explained that since he chose a lot of his curriculum on his own, he tailored his selections for his students. He had a recurring population of ELL students and “struggling readers.” At one time, 50% of his class was ELL students. Based on his high ELL population, he focused a lot on increasing their English skills before moving to many other curricular demands. He incorporated Rosetta Stone, a language learning software product, into the daily routine. Tyler explained,
I just got tired of not, of them not being able to speak English and they only got one hour of service a week from the district. And so I wrote a grant and we got Rosetta Stone so they could spend the first hour of their day at least learning some English from something consistently.

Working with his students drove Tyler to consider himself a “by any means necessary” type of teacher. When asked what his internal monologue was during lesson planning, he responded:

As long as students understood the overarching goal/standard of a lesson or unit, how they got there was of less concern to me. For example, when studying ancient Greece the enduring understanding I wanted students to have by the end of the unit is, “The legacy of ancient Greece and how their contributions to the world have impacted the way we live today.” Students could represent their understanding of this in a variety of ways, all of which represent the students’ individuality and allow them to exercise choice, which will hopefully increase their engagement and willingness to participate.

Tyler also offered these thoughts, “I believe differentiation is a daily game, using continual informal assessments was the only way I felt I would be able to really stay on top of what my students needed from me to be successful.”

Tyler expended effort in his years at Pierce Harbor to find a way to increase the resources for his students. In the five years he taught there, he wrote “$40,000 worth of grants for the building, which was eight times more than the PTSO had in the bank at any one time.” He said:
I made it very clear when I was there that we did the same things the same times every day because it was the only consistent part of their day. And so I really liked that atmosphere and I thought that my passion for getting new resources and getting materials was best suit[ed] there.

Moreover, Tyler commented:

I spent most of my time trying to find ways to make up for the services that—or the opportunities I felt other people should have given them, whether it was the district or their parents or our actual school or somebody in their education before them that didn’t invest in them or something. I felt like I was always pushing for that, I guess.

Tyler shared a story about how he convinced a paraeducator to give up her prep period to work with his students. He had her take “five of the Marshallese kids and read with them.” He asked, “Just read with them and have them read aloud” while you are “eating lunch or snack or whatever.” He also had student teachers for the last three years he taught at Pierce Harbor. While they were teaching, he “was pulling kids out, mainly my ELL kids to read with them. We read Goosebumps or you know stuff that they would think was funny once they understood what the language was.”

Tyler’s instruction could be described as project-based learning or learning through “connection” and “relationships.” In his classes, he taught social studies with a focus on the Egyptians, Greeks and Romans. Through a study of civilizations, he said, “It’s a great tie in with what [they] left us.” In one specific lesson, Tyler taught the students Plato’s Allegory of the Cave. He had four different levels of readers to accommodate the variety of reading levels in the class, from comic book-style
examples to tight translations. Much of the *Allegory* unit was discussion-based to help the students process its meaning. Tyler said, “We talk in depth about how the people chained in the cave represent a time in our life when we are ignorant about things of this world either because we choose to be, or we have not yet had the ability to experience something.” Tyler shared why he chose discussion-based instruction some years, but not for other years. He said, “I have definitely taught each of these lessons different every year and with every group. Differentiation isn't just for academic ability; it's for maturity, creative thinking ability and the willingness to productively participate.”

Tyler spent 30 minutes of discussion time helping the students understand the meaning of *Allegory of the Cave*, but then used the movie *The Matrix* to further help them. He said:

I try to help them see that the Matrix is really a modern version of *The Allegory of the Cave* and how our world represents the cave and the "real world" represents leaving the cave and heading towards enlightenment. I don't expect the students to fully understand this concept, or to walk away really being able to teach it to someone else, but it is really their first experience with a philosophical discussion on any challenging level.

He formatively assessed his class with a half-page quick write following the discussion on *The Allegory*. The prompt was, "What represents the cave for you? Are there things in your life that keep you from learning more about this world we live in and moving closer to being "enlightened"?" Tyler explained, “It usually takes a few times or me
explaining the prompt to help them understand the assignment, but their responses are
great.

Another lesson Tyler taught during his time at Pierce Harbor was the story of
Narcissus and Echo. Tyler found the big idea of the story connected well with his sixth
graders. He said, “We cover this story because it hits so close to home for this age

group as far as the themes of gossiping, narcissism and fickle love.” Tyler taught the
seven common elements of Greek myths during this story as well as during other
stories. One of the documents I reviewed was a Compare and Contrast Chart of each
Greek myth he taught with spaces to record the seven elements. Each element was
discovered through a question asked by the teacher on the graphic organizer and
recorded by the student. One question was, “Was there a lesson or cultural moral value
explained through myth?”

Another example project was the “legacy project. The challenge to the students
was to “transform the school in some significant way that will allow them to be
remembered way beyond their name.” Students completed projects in “recycling cans”
and “taking pictures of the 33 years prior” at their school, meaning the 33 years that
school has existed.

**Contextual Factors**

**Vision for teaching.** Tyler shared his vision of teaching in part while describing
his childhood. Here, his history of schooling and his context merged. He commented:

I guess for me the reason why I continue to be involved in education, not just
teaching, is because I see the impact that it has on a life and how little you as a
person can influence the trajectory of your life outside of education…. And so I see
it as the key to anybody’s ability to do whatever they want with their life.

Tyler shared that education can be “that pivotal point in your family life where you can invest yourself in more education or living cleaner or whatever and that creates a entire break from your family’s history.” He viewed educations as:

the key to unlocking whatever you want to unlock. If you want to be a mechanic fantastic, if you want to be a lawyer great. All those things requires some sort of education and so for me it is unlocking those opportunities for kids and helping them see that there is opportunities for them.

However, there were times when Tyler shared he did not know how far he could push his students in that area. He said, “I think that it’s important for us as teachers to really write a fine line between parenting and educating and so that’s difficult sometimes.”

To help students understand the importance that education can play in life Tyler built relationships with them. He said:

I still feel like relationships are very paramount point in your teaching. So if you don’t relate well with kids they are not going to learn from you regardless. So in that sense I have to be careful of being too content heavy and not focusing enough on their needs and not focusing too much on their needs and not enough on content.

And I think teaching at a low-income school I think you are either one or the other. Tyler commented that the best teachers in a low-income school were the teachers who do “a great job of balancing both--” the relationships and the academics. As to his style, Tyler said, “I will be overly relational with kids that I think need it I guess to respond to that, and the kids that don’t I will focus mainly on content with them and I don’t know if that’s the same for everybody.” In this experience, the relationships he
made while looping with this students were “invested” and “great.” He said, “I have a super tight relationship with those kids and I talk to them all the time.” For Tyler, “the hardest thing is really to get to know kids, especially from low income schools, because a lot of them don’t want to.” He followed up to explain that a lot of the students be known or form relationships. When they leave his class, Tyler wanted them to remember something. He said:

I want them to understand they’re powerful and powerful in a way that they can change the world by not being accepting of what they don’t like. So if they come across a situation they don’t like instead of being disgruntled about it, figure out a way to change it, make it better.

He closed with, “I tell them that you were endowed with special abilities and there is no one that was given the same gifts that you got in the same combination.” To do that, Tyler had to communicate to his students that they had what they needed to change their futures.

**Equity in the classroom.** Tyler reported telling his students that their current situations may not ever change, but they had the power to change their futures. He said he told kids about the possibility of change:

I’m sorry your parents are the way they are. They’re probably going to be the way they are for the rest of their life. So how are you going to be for your life, because you can’t help them yet? When you’re older try, that’s great, but right now you can’t. So how are you going to help yourself in the meantime get to a place where you don’t have to repeat that cycle?” Whether it’s generational poverty or drug abuse or physical abuse or whatever it is, that doesn’t have to be replicated.
Tyler explained his wishes to “empower” students and to make sure they knew they were “capable.” Doing that in the Timber School District was difficult for him. He said, “The most unfortunate thing about working for Timber at the elementary level is the lack of guidance and assistance on what to use to teach the topics you are supposed to teach and the professional development to do so.”

Whereas other schools in the Timber School District have robust PTSOs, Pierce Harbor Elementary does not. He explained the example of the widely known DARE program, which teaches students to stay away from drugs. He commented:

PTSO pays for the DARE program to come in. Now if we look at the schools that have the DARE program, Wheeler Elementary, Revenig Elementary, those kinds of schools, probably not a heavy drug focus in those school systems. Pierce Harbor can’t afford to pay for the DARE program, okay? So we’re putting the bandage on the wrong wound, I think.

Tyler saw inequity in the opportunities for his students. For example, they raised their own money to see a King Tut exhibit, but did not even consider guest speakers or the mobile planetarium visit. In other schools that year, PTSO paid for those expenses. He said, “The inequity is only remedied by people willing to work extra hours and find money and to do that on their own, because our district is not doing it and they are not going to do it.” Tyler said, “I think that we do a poor job in our system of finding the needs of specific kids and meeting those need. The school “Blondin STEM Academy” is great for science related kids, but those kids are probably the kids that are already doing fine.” For Tyler, low-income students needed access to curriculum and relationships to find success. He asked:
And so how do you take like a classical education model and make it available to low-income kids? And show them that through being culturally literate and understanding what they’re reading and helping to define their future for them and giving them opportunities to choose what they want to do.

For his students, Tyler used the Legacy Project mentioned previously to ask students how they wanted to be remembered in their school. He told them to “start small” but to remember that the idea “needs to transcend what you do.” He taught them to think into the future and plan to backward.

Tyler, however, thought the school system “does a poor job of giving people options for what they can do.” For making school a better place, Tyler suggested looking at the structure of it. He said:

I teach with a lot of people that have zero passion for it and it’s everywhere, and I think the only way to do it is to create a system, a smaller system on your own first and finding people that are passionate and letting that get bigger instead of trying to attack a large system and trying to shrink down the size of people that don’t care anymore.

At the close of the interview, Tyler shared that he was in the process of starting a charter school in the city. The school’s mission was to teach a sequenced, core curriculum with a targeted population of underserved children in the Columbia area.
CHAPTER FIVE
CROSS-CASE ANALYSIS

Review of Research Problem, Purpose, and Questions

The purpose of this study was to understand how teachers’ cognition (influenced by schooling, professional coursework, classroom practices and contextual factors) in low-SES schools affected their instructional practice. Through classroom observations, interviews, and documents, some patterns surfaced regarding teacher cognition and instructional practice. These patterns, derived from the data, can inform teachers’ instructional vision and impact student learning.

Using case study methodology (Miles & Huberman, 1994; Stake 1995), this study included four teachers in two different buildings but all were in low-SES demographics as determined by the schools’ free and reduced lunch percentage. Specifically, the cases included one middle school teacher and three elementary teachers. Current literature offered a picture of the effects of teacher cognition on practice but not specifically in a low-SES school. At a time when high-stakes testing and the Common Core State Standards took a major part of the instructional day, it was a valuable endeavor to explore how teacher thinking affected practice.

Study Purpose and Research Questions

The purpose of the study was an exploration of teacher cognition and instructional practice in the middle and elementary school classrooms. The following questions guided the research:
1. How do teachers describe their history of schooling?

2. What professional coursework did teachers describe as central to their practice or vision?

3. How do teachers describe and enact their classroom practice?

4. What contextual factors influenced the classroom practice of each teacher?

The first question looked specifically at the history of the participant as related to their schooling experiences. The second question addressed the professional coursework that prepared the teacher for his/her position in the school. The third question opened up the instructional vision of the classroom as I saw through observation. I will explain the categories of observation before addressing the fourth question further down. The categories of observation included the following: structure of the classroom, routine of the classroom, curriculum used, and instructional practices used by the teacher. I was interested in how the teachers conducted the business of teaching in their classrooms. I wanted to see how it all came together and if there were any standard practices present. The third question was also addressed through interviews to gain an understanding of how teachers perceived their practices. Again, as was important in observation compared to the interview, the teachers were asked about the structure of their classroom, the routine of their classroom, the curriculum they used, and their instructional practices. I wanted to hear what their perceptions of their instructional practice were. I wanted to hear about what they thought they were doing in the classroom compared to what I observed them doing in the classroom. The fourth question was answered through multiple data points that included observation, interviews, and documents. Many questions during the interviews asked about the
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teachers’ visions for teaching and learning. In the interviews, all the teachers saw
themselves as advocates and proponents of social justice.

The way in which these questions worked together formed the synthesis of this
study. As the literature suggested, teacher cognition largely affected instructional
practices. Working from that standpoint, one can conclude that the instructional
practices in a low-SES school are influenced by the cognition of the teachers in the
classroom as well as the sense of social justice and equity that they carry with them.

Discussion of the Data

The data collected in this study served to explore the research questions about
instructional practices and teachers’ patterns of cognition as related to those practices.
In the following discussion I will first share what I anticipated hearing from teachers in
low-SES schools. Following that, I will give the impressions I first had when
observing and interviewing the teachers. I will close the chapter by offering the
particular findings that emerged from the data as well as the implications of the
research study.

I interviewed four teachers on twelve separate occasions (or three times each)
after spending months reviewing the literature on teacher cognition, high-poverty
schools, and teacher practices. Although the topics were critical to answering the
research questions, teacher cognition remained the central object of the study (Thomas,
2011). During the interviews, I anticipated hearing devastating stories of neglect and
childhood trauma. I also thought that the stories of the teachers would be similar in
nature because of the similar demographics where they taught. I wondered if I might
find teachers who were tired and weighed down from the daily emotional investment.
In reality, I discovered teachers who had more similarities than differences but not in the way I expected. Their stories do not corroborate all of the available literature, but they do offer insight into the minds of teachers as related to instructional practices in low-SES schools.

**Teacher Profiles**

Rebecca was in the right profession as far as I could tell. She took great enjoyment in her students and challenged them to be their very best. She thought second graders were certainly old enough to begin talking about the future. She wanted her students to know that they could choose another life different than their parents’ lives. She tailored her lesson plans to fit her specific students, but she expressed great disappointment in her district’s ability to respond to the unique needs of her building.

Kari found her home as a middle school teacher. She spent her time with me explaining how she could get students to solve their own problems and make learning a priority. She acknowledged that middle school was a place for her students to grow and get a glimpse into their futures. She had taught all but one of her career years at the middle school and planned to continue teaching there. For Kari, the curriculum was not as important as what she did with it in her classroom. She was ready to make changes to her lessons between periods to respond to the needs of her students.

Vivianne came to teaching through a personal tragedy, but knew it was for her. She quickly jumped into the job and continued to search for best practices in her language arts and social studies instruction. She was teaching sixth grade at the time of the interviews but had a background in the primary grades. She is a mother, who admittedly finds that maternal instinct alive and well in her classroom. She thought
about the whole child while she was teaching, which included their hygiene, emotions, and academic well-being. Vivianne spent a lot of time working one-on-one with her students, and she said she did not know how to do it any other way.

Tyler could be described as rogue in his approach to teaching. His years working in a low-SES school were filled with grant writing, project development, boundary pushing, and academic questioning. Tyler explained many of his instructional practices through the understanding of the big picture in education. His grant writing was a response to what he viewed as an unresponsive central office. His ELL students and special education students were not receiving the services they needed. Tyler chiefly used self-selected curriculum to serve his population in ways he saw fit.

Developing a multi-cell matrix was critical to displaying the patterns that emerged from the data. The teachers’ names were recorded in the cell if the teacher demonstrated a “high degree” of influence from a particular domain. “High degree” was determined to be if the participant discussed the domain outside of an interview question pertaining to another topic and/or if the participant offered detailed, in-depth responses that were more than simply answering the interview question. The participants offered more detail here either through their own initiative or from a non-directional probe. Again, in the matrix adapted from Borg (2003), schooling pertains to previous experiences in school as a learner; professional coursework pertains to pre-service learning and in-service learning; contextual factors pertains to the current socioeducational conditions; classroom practice pertains to the participants’ teaching experiences.
When I began this project as I said, I anticipated that the four teachers would tell similar stories about their experiences in low-SES schools. I thought they might all share about how difficult helping each child meet standards when saddled with the personal difficulties faced by many of the students. The personal life circumstances of each student turned out to be a smaller-than-expected portion of the interview and observation experience. The teachers spoke, demonstrated, and documented far more attention toward in the academic development of the students than focus on the difficulties of the students’ lives. Their classroom practices were supported by their past experiences in teaching. They learned from themselves. In fact, three of the

**Figure 2.** This multi-cell matrix represents the degree to which the participants responded in their interviews about the four factors from Borg’s (2003) model.

**Teacher Findings**
teachers pointed a finger at the district management of resources as a much larger factor than the students’ home lives. They described the contextual factors to be budget, district oversight, and school-to-school communication were high for three of the four teachers. For each teacher, the observations revealed consistent and high expectations that were shaped by their own history of schooling. This pertains to Research Question One, which asked, “How do teachers describe their history of schooling?” Data from the history of schooling revealed that patterns of childhood experiences influenced their instructional visions, routines, structures, and intended outcomes. Additionally, each teacher placed high value on relationship building, but approached students in unique ways. The teachers also used the district-issued curriculum to the extent they deemed valuable to their students. In a sort of “student-reflexive curriculum,” each teacher modified and made accommodations to the prescribed curriculum as needed. These patterns support the exploration in Research Question Three, “How do teachers describe and enact their classroom practice?”

**Teachers’ History of Schooling as Influential to Instructional Vision.** The teachers in this study shared accounts of their childhood experiences in schooling. Research Question One addressed their history of schooling and Research Question Three addressed their classroom practices. In each teacher, I found a relationship between the current classroom practices and the classroom practices they had experienced as children. Literature supports the relationship that exists between a teacher’s experience as a learner and his/her future instructional vision (Freeman, 1992; Holt Reynolds, 1992; Johnson, 1994; Lortie, 1975; Nisbett and Ross, 1980; Nespor,
Responses to this question situate themselves within the schooling domain on Borg’s (2003) conceptual model of teacher cognition. Within the matrix, I noted that all four participants offered detailed accounts not only of their experiences in school, but also how those experiences had shaped their practices as teachers. In the following section, I will offer a discussion of the literature that supports this finding as well and some examples from the teachers that illustrate this relationship.

**Rebecca.** In her story, Rebecca saw many similarities between her sister, Karen, and her students. Although Rebecca’s own school experience was fairly typical, she saw deeper into her students’ lives because of what she saw as her sister as a child. Rebecca said, “I try not to take it at just face value. I really try to see what could it be, because I know there were so many layers to my sister’s struggles that I’m fully aware that there are probably many, many layers to the struggles that my students have.” Rebecca thinks there is a point a teacher can make a huge difference in the life if a child, a point that was overlooked in her sister’s. She stated:

And so my thinking is where could you intercept that kiddo whose like my sister and say I can understand and respect that you may not feel that you’re four year college material, but you still need to get yourself on a path for successful life and education is key to that. I feel like that is the gap that my sister had. She didn’t get intercepted, that key point and so that’s the kind of focus that I keep with kids that are my students.
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Rebecca’s responses are typical of a teacher whose cognition is shaped by schooling (Borg, 2003; Lortie, 1975).

Tyler. Tyler’s experience as a learner also had a notable effect on his teaching practices. Tyler explained his childhood was molded through being parented by a military father with high expectations. Tyler described how his childhood influenced his teaching:

I grew up in a family with an ex-marine dad and so we were very regimented.

He’s the CEO of business now and so he’s—I mean very much atypical, whatever and so I find comfort in it because I can anticipate what’s happening.

Tyler explained that the routine and structure of his childhood was something that many of his students lack. He shared that many of his students cannot anticipate what will be happening next in their day, so he makes sure his own plan is consistent.

And a lot of these kids and their background can’t [anticipate]. You see that very clearly that they have a hard time getting to know you because they’re not sure you’re going to be around or they’re going to be around or they’re going to move or they’ve been in seven schools or whatever and so for me it’s very important to establish ‘I’m here; my job is this,’ I’m willing to do this for you if you’re willing to do this back for me.

Tyler made a connection with his childhood experiences and assumed that his students needed the same things that helped him. Although acknowledging this particular influence was not from the classroom, the literature suggests that his personal experiences shape his instructional vision in the classroom. Literature acknowledges his schooling experiences will shape his vision (Borg, 2003).
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For Tyler, a shaping childhood experience was during his sixth grade year. Situated within the schooling domain from Borg (2003), he remembered watching his sixth grade teacher insult and degrade fellow students. Tyler watched the teacher tell his friends that they should “take a nap” during math since it was too hard for them. He expressed in his interviews that he knew if he became a teacher one day, he would teach sixth grade. He wanted to be a teacher that had a positive impact on student learning and in some ways, right the wrongs of a teacher before him (Borg, 2003; Pajares, 1992; Johnson, 1994).

Vivianne. In Vivianne’s case, I also made a connection between her schooling and her approach to instruction. Vivianne was a self-described “military brat” and moved around the world often. She acknowledged that this gave her sensitivity to a transient population and the effects it has on schooling. Vivianne never spent more than a few years in a school, which is a common occurrence for many of Pierce Harbor’s students, too. She expressed in an interview that she wished “more of them [the students]” stayed all the way through school, meaning kindergarten through sixth grade in one location. Moving schools often meant gaps in teaching and learning and an inconsistent group of friends for Vivianne and her students. Vivianne attempted to make more consistency in her students’ lives by offering summer book clubs, social networking communication, and a homey feel in her classroom. Vivianne shared that her role as a mother in life has influenced those instructional practices, too. Vivianne had integrated hygiene and nutrition instruction into her second and sixth grade classes, both hallmarks of mothering.
**Kari.** Kari shared about her frustrations in her schooling. She felt like she was the misunderstood child in elementary school. She recalled her parents having a conference with a teacher who expressed this concern: Kari finished her work too quickly in class. Kari often felt bored and unchallenged, so she looked for more interesting activities to pass the time. This often got her in trouble with the teachers but no one gave her more appropriate work or challenged her skills. Kari admitted to looking for that child in her classes every year to make sure he/she was getting treated fairly. She said that kids need different paths, just like she did. She tried to make different paths for kids as a result of her own experiences. Middle school was an important time for Kari. She was connected to good teachers who looked out for her. Kari believed that middle school is a critical period of development and knew that she was in the “right” grade level as a teacher simply because she had been through that period herself. Kari’s story is situated within Borg’s (2003) conceptual framework of the power previous experiences have on current practice (Borg, 2003; Pajares, 1992; Johnson, 1994).

**Teachers’ stories.** The four case studies presented connections between the teachers’ schooling in the classroom and their instructional practices as teachers. In every case, the teachers could call up memories from positive experiences and negative experiences in the classroom. Tyler recalled a painful experience in sixth grade, he made note of the impact that had on a classroom. Nearly 20 years later, he remembers to be a guardian of his students and make his classroom a place for learning. Rebecca’s memories were not painful for her, but painful for her sister. Rebecca also watched and took note of how to make education better. In Vivianne’s case, she brought sensitivity
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to the classroom and her transient population. This came from a wonderful experience in school, but one that was often disjointed and new all the time. Finally, Kari’s experience in school reinforced the idea that differentiated curriculum was a choice for teachers and a choice that had great impact on students’ lives. After years of not being challenged, but being misunderstood Kari kept watch for those students who needed a different path to achieve the teacher’s goals.

The examples above indicate that schooling influenced future classroom vision. With regard to specific classroom impressions, Lortie (1975) called this the “apprenticeship of observation” where teacher cognition is shaped early in life, unbeknownst to the learner. It stands to reason that these experiences in turn affected the cognition of these practitioners. However, literature still supports that teachers can improve their practice through training and classroom experience (Cabaroglu & Roberts, 2000; Freeman, 1996). Although past experiences do have an incredible shaping effect, teachers can still be responsive to new learning.

**Approach to Students in Low-SES Schools.** While looking at Research Question Three and Four, a key theme emerged among all four teachers: the importance of building relationships with their students to further academic gains. All four teachers commented that they strive to know each student and understand his/her needs. This theme emerged from examining the data from the cells “classroom practice” and “contextual factors” on Borg’s (2003) model. I found that there was a connection between the relationships the teachers established with their students and the content they delivered. They all commented that they had learned this skill as a teacher from simply their years of experience in the classroom and understanding the needs of the
school’s demographic. Here, classroom practice and context came together. For example, Tyler shared that relationships were one the most important pieces of his classroom structure:

I still feel like relationships are very paramount point in your teaching. So if you don’t relate well with kids they are not going to learn from you regardless. So in that sense I have to be careful of being too content heavy and not focusing enough on their needs and not focusing too much on their needs and not enough on content.

Tyler looped with his students, as described before, a somewhat unique practice of retaining students from one year to the next out of preference, not remediation. The teacher and the students are promoted to the next grade together. During the first year, Tyler worked diligently on the relationships with his students for future gain. He said, “I spent their fifth grade year very much investing in the relationship aspect, knowing that I was creating leaders for next year’s group. Because they were going to come back and they were going to be comfortable with what they did and they knew us and they knew our routines.”

Each teacher in the study commented that academic gains could be higher if the teacher had a strong relationship with the student. In fact, Rebecca remarked that the relationship building process could take all year, but the dividends were great. The students with whom each teacher worked in this study came from a high-poverty demographic. The literature suggests that a family’s socioeconomic status (SES) influences the academic achievement of the children (Duncan, Brooks-Gunn, & Smith, 1998; Haveman & Wolfe, 1995; Milne & Plourde, 2006; Sirin; 2005; White, 1982) and
the best chance to have life opportunities outside of poverty is through education (Beegle, 2003). Although the particulars of each student were unique, the relationship building was consistently seen as a step to academic success. In addition, the academic expectations teachers communicate to students in poverty need to be high—and maintained (Olmedo, 1997). Rebecca shared, “I’m not so structured and stuffy that I’m like ‘no that is incorrect’. They know that I’m a pretty normal person. I’m not some high and lofty sage on the stage kind of thing, but I do have very high expectations, very high expectations.” Teachers commented that this relationship building process was one major way they helped maintain high expectations. This practice came about from their own thinking and beliefs and were largely influenced from effective patterns in past classroom practices (Borg, 2003).

**Student Reflexive Curriculum.** With regard to the instructional practices and the perceived instructional practices explored by Research Question Three and Four, all the teachers adapted their curriculum to fit the needs of their students. Here, effective classroom practice and contextual factors were united in the teachers’ visions. The teachers showed an advanced level of dexterity with curriculum modifications and made the materials work for their students. No teacher in the study wrestled with curriculum without being able to locate and implement alternatives. This pattern emerged from looking at the same two cells, “contextual factors” and “classroom practice.”” Again, the teachers in this study spent considerable time understanding the context of the classroom as well and the effectiveness of past practices in their classroom. For example, Rebecca found out what her students needed. She shared:
And the kids that I have in this demographic here, largely need more hands on activities. They need to make it more concrete. They need to have experience, for example if we’re doing phonics work, they need to be able to physically move sounds around in a word, by having them on cubes or tiles and things like that to actually physically move them around instead of just fill out a worksheet…. They actually have to have that kinesthetic piece and see it.

Rebecca shared that she needed to try new materials she found from blogs, other websites, or colleagues. Rebecca said, “she tried new lessons with a focus group first to see how they responded.” On occasion, she modified lessons “on the fly” if, in her professional judgment, she needed to slow down. This, she explained, “is a gap in curriculum and not a gap in students.”

By comparison, Tyler made his curriculum fit the students, not the students to fit the curriculum. Tyler met his students where they were with their skills and challenged them from that point, in full acknowledgement of his classroom context. For example, he saw a need for his ELL students that was not met by the district, so he wrote a grant for Rosetta Stone and had them work with a paraeducator. Tyler did this “so they could spend the first hour of their day at least learning some English from something consistently.” He saw the curriculum from the district as flat and unresponsive to the needs of his students, so he searched for project-based social studies curriculum online and started the Legacy Project to leave a lasting mark on the school. Vivianne and Kari shared similar stories of their experiences modifying curriculum. Vivianne explained in her interviews that she had no writing curriculum
for sixth grade, so she adapted primary material to fit the needs of her students. In her writing workshop model, she helped students set individual goals. Vivianne shared: I modify for—I take my conferences as my base for modification okay. So when a child does a piece of work for me and we confer about that, we look at the rubric and we look at the work, and they will say well I know I did really well on this and I say show it to me, prove it to me so they take a highlighter and they highlight on their work where they did that.

Her writing curriculum was tailored to each student since she did not use a program for all students. For Kari, she district did provide language arts curriculum for her, but she still modified it as the students needed it. She shared: It’s surprising to me the controversy that a curriculum can cause, because I think it doesn’t matter what you’re using. It matters—it matters what you do with it. It could be the world’s best curriculum but it’s what you do with your curriculum that makes a difference, not what you were given to use.

Not surprising then, Kari made changes from year to year even if she used the same materials from year to year. She shared her feeling on working with curriculum when she said: I love it, but I also—but I also have a lot of experience adapting curriculum to fit a variety of needs because I used this curriculum when I taught in the resource classroom kids with writing disabilities with the very writing heavy curriculum. And so—but we were able to make it work, because it’s what you do with it. And it still has really good thinking in it. So even kids aren’t able to—I mean you could extend it if you want to. You can accommodate if you need to. You can modify it
if you need to, but the ideas and everything in it are really good.

For Kari, the issued curriculum was a starting point, but not the ending point for her classroom. Aoki (1993) writes about the distinction between the “curriculum-as-planned” and the “curriculum-as-lived” (p. 257). Aoki (1993) explains that the curriculum-as-plan often exists outside the classroom whereas the curriculum-as lived is the narrative of the individual child in a “landscape of multiplicity” (p. 258-259). The teacher in this study indicated their patterns of modifying accommodating, or starting over when planning and teaching. This pattern situates itself easily within the two domains mentioned previously (Borg, 2003).

**Social Justice and Equity.** Research Question Four was designed to explore the relationship between the teachers’ patterns of cognition and their beliefs about social justice and equity in schools, called the contextual factors of school. The data revealed the finding that the teachers had different views of not only what social justice means, but also how its presence was felt in their classrooms. Although different in their perception, all four teachers regarded the contextual factors on Borg’s (2003) model and critical in how they thought about their classroom practices and individual students.

For Rebecca, social justice issues surfaced when she collaborated at all-district committee meetings. The district’s efforts, in her perception, we misguided when considering all the elementary schools in the district. She said:

I remember just sitting in some math, some district math meetings, you know 7:30 in the morning just to talk about ‘okay here’s what the next month’s going to look like’ and just looking to my colleagues from Josiah going, ‘we’re nowhere near ready for this.’
In addition, the district (in efforts to remain equitable) budgeted the same amount for resources including copies and curriculum to every school. Rebecca said the needs of her demographic are different, and should be supported by the district. The needs of students in a high-poverty school are unique. All too often, schools that begin with less are not given more to make up for the deficits. This is concurrent with the literature since No Child Left Behind. Schools that fail to show improvement in student test scores are required to use federal support dollars in prescribed ways. The dollars do not reflect the needs of the particular school, but must be allocated in one of four ways mentioned in chapter two. If the school still fails to see improvement after federal intervention, then the school is closed. Disturbingly, none of the four programs offered to “turnaround” a school has any research base to them. Each program is based on the assumption that children are not receiving the instruction they need, so sanctions are put in place until the schools improve. This thinking is akin to closing a police station because crime has not gone down (Ravitch, 2014).

To corroborate that finding, both Vivianne and Tyler worked in same school as Rebecca and made similar comments. Vivianne had requested a washing machine and dryer on site, but was turned down for many years. Tyler requested more support for his ELL population, but ended up securing the necessary materials himself. All three of the teachers (Vivianne, Tyler, and Rebecca) indicated that the PTSO funds from their school paled in comparison to the other elementary schools. That in turn affected the equitable access to curriculum, making the rich get richer and the poor get poorer. It is of interest to note that the three teachers who spoke volumes about equity were from the only low-SES school in an largely affluent district. It is the only school in the
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district with a high free and reduced lunch rate whereas Kari’s school was more representative of her district as a whole.

Kari spoke only a little of the PTSO funds and how her school compared to others. For her, issues of social justice were in her classroom. Kari shared that she set clear expectation for her students and promoted growth in the individual. Kari acknowledged that the starting places for each student might be different, but that growth can happen for them. The literature says the academic expectations teachers communicate to students in poverty need to be high—and maintained (Olmedo, 1997). Kari also commented that justice might not mean the same for all students, but that each student deserved the support needed to succeed. She conceded that at times, trauma or other personal circumstances might need attention before academic learning can occur. This is found in the literature that teachers need to understand “the meanings that students bring with them to school and they type of environment that would support a powerful and empowering education” (Liston & Zeichner, 1996, p. 91). Liston and Zeichner (1996) suggest that the approaches of Ted Sizer (1992) and Deborah Meier (1995) support practices that include all children. Teachers should offer a common core set of learning and understanding while at the same time approaching teaching with sensitivity that conceded they (teachers) “may not have the whole picture in front of them” (Liston and Zeichner, 1996, p. 92).

The data collected in the study pointed to issues of equity being apparent within a district’s allocation of resources as well as a teacher’s expectations of his/her students. The message the teachers of Pierce Harbor received from the district was one of great detriment to the morale of the staff. Secondly, the expectations set forth by
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Kari at Lincoln Middle School also sent a message. It was Bourdieu (1991) who stated “everyday linguistic exchanges [are] situated encounters between agents socially endowed with socially structured resources and competencies” (p. 91). In this respect, actions did speak volumes.
The research study discussed here was a case study of four teachers who work in a low-SES demographic. This case study as well as others can be extremely useful in transferring learning to a larger context. Although the goal of this research was not to make generalizations to the larger population, the goal was to offer transferrable findings. In support, Flyvbjerg (2006) offered, “Formal generalization is overvalued as a source of scientific development; the force of a single example is underestimated” (p. 219). Guba and Lincoln (1989) corroborate that statement and posit that generalization needs to be given up as the goal in research, and rather transferability should be prized instead. This was the case here.

Study Insights

Respect for Teachers’ Implicit Belief Structures. These four case studies indicate that the teachers’ experiences dating back to their schooling influenced their instructional visions years later in the classroom. Rebecca shared about her sister falling through the cracks in the system, her favorite teacher, “Mr. K” and her difficult experience with a math teacher. Rebecca said in an interview that she thinks of these moments often as a teacher. Tyler shared about his favorite and his not-so-favorite teacher from school. Mr. Sugar admittedly shaped Tyler’s approach to “coaching” kids through sports and academics, making the student-athlete connection from Tyler’s childhood. In addition, Tyler’s sixth grade teacher made such horrible impression on him that Tyler felt led to teach sixth grade. In a way, Tyler sought to remedy the
wrongs that he had experienced as a child and make it right for the next generation. For Vivianne and Kari, both women shared experiences from schooling: Kari said she often “looks for” the student in her class who needs a different path—the student who was like her in school. Vivianne loved learning as a child and seeks to instill that love daily with her own class.

Support for the transference of experience from schooling into the professional life is not new. This finding is concurrent with the literature that the vast experiences teachers have as learners can shape part of their cognition as professionals (Borg, 2003; Freeman, 1992; Holt Reynolds, 1992, Lortie, 1975; Nisbett and Ross, 1980, Nespor, 1987, Numrich, 1996).

**Freedom to Differentiate.** An additional implication from the findings in the data is in the importance of curriculum in the classroom. Every teacher in the study spoke to the place curriculum occupied in the structure and routine of the day. Tyler and Vivianne shared about the lack of appropriate curriculum available to support the teachers in their planning. Rebecca commented that the “district’s pacing guides were oppressive” when she tried the match them with actual students in her class. Kari was given the *SpringBoard* curriculum from her school district, but shared that she modified it as she needed. She made her own graphic organizers to complement the lessons, and changed lessons from group work to individual work to whatever was needed—sometimes from period to period. Each teacher shared how he/she made accommodations to curriculum, disregarded the curriculum completely, followed it with fidelity, or supplemented with their own discoveries.
However, Common Core State Standards are in full effect soon in 45 of the 50 states. As the nation moves to sharing goals, so does the conversation about shared curriculum. With districts working hard to make sure their curriculum aligns with the standards, perhaps professional development on differentiation might be more effective realistic. Each teacher in the study explained their curriculum modification strategies began with the students in mind. The teachers explained their goals, thought of their students, and then designed curriculum to meet their needs. The data implies that teachers need training and support to modify the path to learning goals more than they need expensive, standardized, one-size-fits-all curriculum. Fahey and Glickman’s (2012) work centers on understanding that the professional development (or teacher learning opportunities) can positively impact students learning. The more the teachers learn, the more the students learn. Since the teachers search their own students for clues as how to instruct, their instructional vision can reflect the culture and strengths of the classroom.

**Equity in Schools.** The findings of this research indicated that teachers in a low-SES school, in this particular case study, need a voice when resources are determined at their schools. The teachers in the study offered detailed accounts of the time they spend making curriculum fit or in worse case scenarios, searching for their own curriculum. The needs of a low-SES school are unique, and each teacher in the study corroborated that understanding. From bigger copy budgets to more available food, the school needs resources that a high-SES school may not need at all. When considering instruction, each teacher acknowledged that all the sociological impacts on a child had to be taken into consideration. The teachers’ requests for different
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resources for their schools, ironically are continuously denied for the sake of equity. Schools struggle to do business differently, but this persistent theme is couched in the larger idea of the “grammar of schooling,” or more commonly, why schools resist change (Cuban and Tyack, 1995). The data of this study implied that teachers are reflexive and responsive to their students. Perhaps we should give teachers a larger voice in the happenings of their classrooms.

From the perspective of teaching and learning, the teachers in low-SES schools in this study worked to know their students and design instruction for them and their futures. Drawing from the work of Moll et al. (1992), a counter-intuitive approach to children in poverty is to “develop innovations in teaching that draw upon the knowledge and skills found in local households…we can organize classroom instruction that far exceeds in quality the rote-like instruction these children commonly encounter in schools” (p. 132). These teachers used this strength-based approach when they made the curriculum work for the unique kids in the classroom. This approach required that the teachers examine the lives of students outside the classroom and truly leverage them inside the classroom, building in relevance in curriculum (Moll et al., 1992).

Trends in Education. Finally, one of the most problematic insights I gained from this research was the crossroads of these dedicated teachers and their occupational pressures. The teachers commented that not once in their careers had any expectations of the job been reduced--far from it. They were expected to add more and perform stronger each year. The problem is the teachers continue to meet those demands placed by their schools, districts, and state. They meet the demands because they want to
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teach well and foster success in their classrooms. With the adoption of Common Core State Standards, they are searching for and developing curriculum to support their students, prepare them for exams, and navigate new terrain. In Columbia, the legislature adopted a new teacher evaluation program, which serves to increase the level of performance feedback and raise the performance level of teachers across the state. What it has done in the first year is put immense pressure on teachers and principals alike, moving the focus away from the students during this evaluation period.

The governor of the state recently made a decision not to link teacher evaluations to students’ test scores. This decision resulted in Secretary of Education Arne Duncan revoking the freedom to use some federal monies the state had previously had jurisdiction over spending. Now tighter restrictions are wrapped around the monies, which will limit districts’ capabilities service students in the manner they think best.

As the data I collected indicated, the teachers still remain dedicated to their students and their personal visions of education. Unfortunately, some teachers can only take so much and are deciding to leave the profession. An article titled Why they Leave (Kopkowski, 2008) addressed much of the concern around the professionalism, demands, and unrealistic expectations placed on teachers in urban and suburban neighborhoods. Many are leaving teaching for new jobs completely or to go into administration. In addition, new teachers are not prepared to deal with the level of bureaucracy and pressures that come with a teaching position. The teachers in this study seemed to commit themselves to serving students well at the risk of being unfaithful to the prescribed curriculum and status quo. These teachers do so in a rogue fashion, but I wonder for how long they will all last?
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Study Implications for Future Research

As mentioned in the introduction, No Child Left Behind legislation, although a re-authorization of a previous bill, created a culture in education focused on accountability and assessment. In unparalleled ways, teachers are held accountable for their students’ scores, putting immense pressure to teach to the test. The four teachers in these case studies shared their strategies and methods for adapting curriculum to fit the needs to students in their low-SES schools.

While I was interviewing the teachers, I thanked each of them for the time they offered me. Each teacher at different moments suggested that never before had they reflected so thoroughly about their teaching practices. They commented they were so busy doing their jobs that they rarely had time to reflect on their practice. Perhaps the professional development should honor these teachers’ reflective needs and their implicit knowledge structures. Perhaps time in the day should be dedicated for teachers to consider the impact of their practices, both individually and collectively. Borg (2003) describes teacher cognition as the “unobservable cognitive dimension of teaching—what teachers know, believe, and think” (p. 81), which is situated in the literature on teacher socialization, teacher perspective, and classroom practice (Adler, 1984; Goodman and Adler, 1985; Ross, 1987, 1988). Furthermore, the relationship between teacher cognition and classroom practice is corroborated by Cochran-Smith and Zeichner (2005) and Pajares (1992). Research tells us that reflection for educators is powerful and important.

Statewide, teachers are asked to participate in the Teacher/Principal Evaluation Project, which has raised the awareness of teachers’ reflective practices in the
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classroom. The evaluated domains of teacher effectiveness in the TPEP require reflection from the practitioners. Knowing that teacher cognition affects instructional visions, future research in the area of teacher cognition related to student achievement would be a valuable endeavor. In a time of accountability and assessment fervor, understanding and nurturing a teacher’s thoughts and beliefs benefits all parties.

Limitations

These case studies were limited simply because it followed the instructional practices and perceptions of only four teachers during a specific time of data collection, spring 2013. The teachers were purposively selected because of my familiarity with the teachers in what Thomas (2011) refers to as a local knowledge case and their current roles as teachers in low-SES schools. A specific limitation was found in Tyler’s case study because, although he taught in a low-SES school for five years, he was not teaching there during the interview and observation times. His descriptions of his time in a low-SES classroom came from memory instead of from current routines. Additionally, no observations could take place because he was traveling through the Timber School District and working with gifted and talented students, only a few of whom came from low-SES backgrounds. However, Tyler’s tenure in the low-SES school was a valuable period of learning for him as a professional and profoundly affected his career. For this reason, I found his interviews and documents to be of value to the study.

Because these are case studies, the research does not capture the perceptions and cognition of all teachers in low-SES schools. It does not represent teachers who were ineffective or who were not recommended by the administration.
The data collected in the study included interviews, observations, and documents from the teachers’ classrooms. Observations were designed to collect data on the instructional practices of the teachers; interviews were designed to collect data on the teachers’ perceptions of the instructional practices; and documents were to triangulate the data. Much of the literature conveys a picture of teachers of low-SES students as having low expectations, but the academic expectations that teachers communicate to students in poverty must be high—and maintained (Olmedo, 1997). Additionally, the literature suggests that the barrier to success that supersedes any other factor in a child’s life is poverty (Burney & Beilke, 2008; Ladson-Billings, 2003). With that knowledge, the incredible power of teachers to influence lives begins simply with how they think.
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References


Santa Monica, CA: Rand.


TEACHER COGNITION


The NERA Journal, 46, 17-21.


TEACHER COGNITION


Numrich, C. (1996). On becoming a language teacher: insights from diary studies,
TEACHER COGNITION

*TEOSL Quarterly, 30*, 131-153.


Rowan, B., Correnti, R., & Miller, R. (2002). *What large-scale, survey research tells*
us about teacher effects on student achievement: insights from the prospects study of elementary schools, 104, 1525-1567.


United States Census (n.d.) downloaded on May 17, 2014 from
TEACHER COGNITION


Appendix A

List of Study Participants

The following is a list of the four participants named in the study. All names are pseudonyms.

**Teachers:**

Kari—junior high English teacher

Rebecca—kindergarten teacher

Vivianne—sixth grade teacher

Tyler—sixth grade teacher
Appendix B

First Interview Protocol for Teachers

Focus: Schooling, Professional Coursework (Borg, 2003)

1. Let me tell you a little about myself before I ask you to share about yourself. I will share where I am from, a little about my family growing up, my educational path, how I decided to become a teacher, my career path to this point, and what I value in education.

2. Tell me a little about yourself. Prompts include:
   a. Where are you from?
   b. What was your family like?
   c. Where did you go to school?
   d. How did you decide to become a teacher?
   e. Where have you worked?
   f. What do you think are the most important things in education to you?

3. Was there a particular experience that shaped your decision to become a teacher?

4. Who was your favorite teacher in school?

5. Who was your least favorite teacher in school?
6. Did you ever have an unfair experience with a teacher?

7. Have you ever had an unfair experience as a teacher?

8. Can you tell me about the schools you have worked in?

9. Can you tell me what the schools you worked in thought were important?

10. What is important to you in education?

11. Can you tell me about a person you know who has similar values to you in education?
Appendix C

Focus: Classroom Practices (Borg, 2003)

1. I will begin by paraphrasing what was discussed at the last interview.

2. Please tell me about your teaching experience at this school.

3. Tell me about the curriculum you use in your classroom.

4. How do you modify the curriculum to meet the needs of your students?

5. How do you reflect or review a lesson after you’ve taught it? That is, how do you make changes for later?

6. How do you describe your style of teaching at this school?

7. Is there a time that you changed your style of teaching at this school for some reason?

8. What does a typical classroom look like and sound like at this school?

9. What are some of the daily routines for you in your classroom?

10. What are some issues you deal with in the classroom that get in the way of your students’ learning?

11. What are some of the biggest deficits that students have at your school?

12. What are some of the biggest strengths that students have at your school?

13. Can you tell me about a particular student you will remember forever? Why?

14. Can you tell me about a particular parent you will remember forever? Why?
Appendix D

Third Interview Protocol for Teachers

Focus: Contextual factors (Borg, 2003) and their lens

1. I will begin by paraphrasing what was discussed at the last interview.

2. In light of what you’ve shared, would you consider yourself a teacher who got into this profession because you loved your experience as a student or because you wanted to make a change in how schools are run? The research calls them “identifiers” and “non-identifiers.”

3. Can you tell me again, how did you come to work at this school? Do you think you chose it?

4. In the last interview, you talked about routines in your classroom. What do you think routine does in the big picture?

5. How does your teaching change from period to period or year to year?

6. What kinds of big changes do you make in your classroom? How do you decide when you make changes?

7. Do you see inequities in schools? Can you tell me more about that?

8. How do your teaching practices help promote social justice?

9. How do you treat the students at XXX?

10. What do you want your students to know and remember when they grow up?

11. What else can you tell me about?