A QUALITATIVE STUDY OF HIGHLY EFFICACIOUS HEAD START TEACHERS

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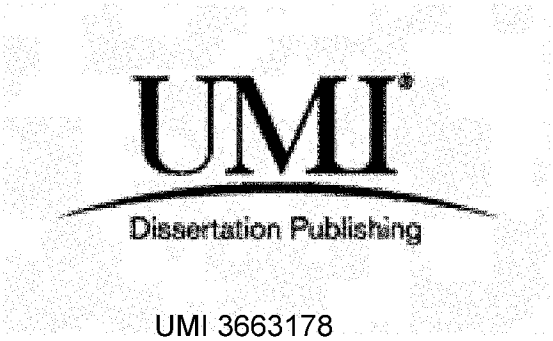

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On behalf of the Graduate Committee for Allyson Dean I affirm that this manuscript is the final and accepted dissertation. Signatures of all committee members are on file with the Graduate School at the University of Maine, 42 Stodder Hall, Orono, Maine.

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A QUALITATIVE STUDY OF HIGHLY EFFICACIOUS HEAD START TEACHERS

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An Abstract of the Dissertation Presented
in Partial Fulfillment of the Requirements for the
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Recent initiatives aimed at improving the quality of Head Start programs have included an increased focus on the instructional strategies of Head Start teachers. One factor that researchers have associated with higher quality classroom instruction and increased child achievement in the K-12 grades is teachers' sense of self-efficacy (Berman & McLaughlin,1978; Ghaith & Yaghi, 1997; Guo, Piasta, Justice & Kaderavek, 2010; Justice, Mashburn, Hamre& Pianta, 2008; Nie et al., 2013). Thus far, research on early childhood teacher self-efficacy has almost exclusively relied upon survey and other types of quantitative data to answer questions about this important construct.

This study of Head Start teacher self-efficacy builds upon this body of research by utilizing a multiple case study to explore Maine Head Start teacher self-efficacy. This qualitative study examined the ways in which self-efficacy is developed and influenced by the context in which teaching occurs. Interviews with Head Start teachers and educational leaders as well as onsite observations were conducted to examine teachers' delivery of instructional support and their belief in their ability to do so in ways that benefit children.

Findings from this study indicate that elements of the teaching environment such as time for planning and reflection, relationships with colleagues, and the amount of time with children can and do influence teachers' provision of instructional supports. In addition the study found that teachers embed instructional supports within a cycle of intentional teaching that includes formative assessment data used to plan for, modify, and individualize instructional supports for children. Formative assessment data also confirmed the benefits of instructional support

strategies for the teachers in this study and acted as evidence of mastery that sustained teachers' instructional self-efficacy.

These findings offer important information for educational leaders and other professionals who wish to optimize the conditions under which Head Start teachers provide effective instructional supports and build instructional self-efficacy. Information from this study can also be used to inform the types of policies and practices that best support teachers in their instructional support of children.

DEDICATION

This dissertation on teacher self-efficacy is dedicated to my first teachers – Cecilia and Robert Eddy. This study has helped me to understand the critical importance of believing in one's own ability to be successful in any endeavor—something my parents taught me early in life. For that I am forever grateful.

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CHAPTER ONE

INTRODUCTION

As public schools grapple with how to support all children in achieving standardized educational benchmarks such as those set by No Child Left Behind, the importance of children entering their doors with a strong foundation for learning is of growing concern. Indeed, assuring children's success in public school begins long before kindergartners enter the elementary school doors, as gaps in school readiness are already forming in the early childhood years based upon the richness or scarcity of learning opportunities to which children are exposed (Campbell & Ramey, 1994; Hart & Risley, 1995; Lee & Burkham, 2002; LoCasale-Crouch et al., 2007).

A child's earliest learning experiences happen within the relationships between that child and the adults who care for and educate him (Shonkoff & Phillips, 2000). In the United States, more than 12 million children under the age of five receive some portion of that care and education outside of the home (Gilliam, 2010). This early care and education takes place in a wide array of settings from private preschools and family child care homes, to publically funded child care centers and Head Start programs. Given the importance of children's development in the early childhood years, the types of intentional and responsive early learning experiences that teachers offer to children in these settings is of critical importance to their later success in school. Indeed, findings from recent research about the impact of early learning on children's developmental readiness for school indicate that children's academic and social readiness is influenced by the quality of interaction between early childhood teachers and the children in their care (Curby et al., 2009; Hamre & Pianta, 2007; Mashburn et al., 2008). These early learning experiences are most critical for children placed at risk for school failure because of their socio-economic status (Campbell & Ramey, 1994; LoCasale-Crouch et al., 2007).

Because of the potential for early learning programs to mitigate gaps in school readiness for children from low socio-economic households, attention to the effectiveness of such programs has increased in tandem with the strengthening of accountability for public schools in the wake of the No Child Left Behind Act of 2002. This increased accountability has primarily focused upon Head Start since it is the largest federally funded early childhood initiative in the United States. Increased accountability for Head Start led to the passage of the Improving Head Start for School Readiness Act of 2007. This Act established a new system of accountability for programs receiving federal Head Start funding. The accountability system included in the 2007 Head Start Act requires existing Head Start programs to compete for their grants if they fall short of quality benchmarks. Among the measurements used in determining a program's success at meeting such benchmarks is a classroom assessment tool developed at the University of Virginia (CLASS: Classroom Assessment and Scoring System, Pianta, LaParo & Hamre, 2008). This tool measures the quality of teacher-child interaction in three domains: emotional support, classroom organization, and instructional support.

> [In the CLASS tool] each domain is rated on a 7–point scale, which takes into account both frequency and quality of teacher-child interactions. Scores of 1–2 mean that the quality of teacher-child interactions is low. These may be classrooms in which children are receiving ineffective interactions, such as reactive behavior management or rote instruction....Scores of 3–5 are given when classrooms show a mix of effective interactions and periods when interactions are either ineffective or just not occurring. Scores of 6-7 mean that the effective teacher-child interactions are consistently observed throughout the observation period (Office of Head Start, 2012, p.2).

Recent research suggests that classrooms need to have fairly high levels of emotional and organizational support, at about a 5 on CLASS, to promote positive social development and reduce problem behaviors while the threshold for quality in the CLASS measured instructional

support is only a 3 or above (Office of Head Start, 2012). Higher scores on this tool, specifically in the instructional support domain, are associated with improved academic outcomes for children, thus creating a potential link between teacher and student performance (Curby, et al., 2009; Early et al., 2006; Hamre & Pianta, 2001, 2005; Mashburn et al. 2008). More than a third of Head Start grantees nationwide are currently below the threshold for instructional support, based on 2010-2011 monitoring results (Office of Head Start, 2013).

The passage of the 2007 Head Start Act and its provision for the measurement of teachers' interaction with children reflects a need to ensure that Head Start programs across the nation deliver preschool services at a level of quality proven to contribute to positive child outcomes. The selection and inclusion of the CLASS (Pianta et al., 2008) observation tool as a measure of preschool quality marks the first time in Head Start's history that teacher performance, as measured by this tool, is used to determine an agency's eligibility for continued funding. Indeed, accountability for children's school readiness is no longer an issue that singularly impacts public schools, nor is children's school readiness a problem to be solved solely by early childhood programs such as Head Start; rather, children's readiness to learn is an issue that spans both of these educational settings. At the heart of this accountability issue is the teacher and the degree to which she believes in her ability to teach at the level of quality outlined in accountability efforts. Such belief speaks to a teacher's self-efficacy, a construct explored in the next section of this introduction.

Teacher Self-Efficacy

The belief in one's ability to teach in ways that are beneficial to children is labeled in the research literature as teacher self-efficacy. The concept of teacher self-efficacy is rooted in Bandura's theory of self-efficacy or "belief in one's capabilities to organize and execute the courses of action required to produce given attainments" (1997, p.3). Self-efficacy is an important consideration in the performance of teachers and their students because as Bandura explains, "Where performance determines outcome, efficacy beliefs account for most of the variance in

expected outcomes" (1997, p.24). In the education literature, teachers' self-efficacy has been defined in terms of personal teaching efficacy, or a teacher's belief that he or she can raise teaching performance to a level believed to impact children's learning. In addition, the concept of general teaching efficacy, or a teacher's belief that teaching at such a level will actually result in increased learning outcomes for children, is another dimension of the construct of teacher efficacy (Hoy & Woolfolk, 1993). Tschannen-Moran and Hoy (2001) further defined general teaching efficacy as teachers' beliefs in their ability to overcome factors that could make learning difficult for some students.

Teacher self-efficacy has been associated with increases in both student and teacher performance (Woolfolk & Hoy, 1990). A robust body of research literature indicates that teacher self-efficacy is associated with student achievement in the K-12 school years (Armor et al., 1976; Ashton & Webb, 1986; Berman, McLaughlin, Bass, Pauly, & Zellman, 1977; Brookover et al., 1978; Ross, 1992). In the early childhood field, researchers have associated higher quality classroom instruction and increased child achievement to teachers' sense of self-efficacy (Guo, Piasta, Justice & Kaderavek, 2010; Justice, Mashburn, Hamre & Pianta, 2008). Studies in early childhood education also reveal that teacher self-efficacy is responsive to training and relationship-based professional development such as coaching or mentoring, (Ciyer, Nagasawa, Swadener, & Patet, 2010; Hamre et al. 2012, Lieber et al., 2009).

Gaps in Research

Despite the evidence indicating the relationship of self-efficacy of teachers to positive outcomes for children, implementation of innovative classroom instruction, and sustained change in teacher practice, a thorough examination of teacher self-efficacy among early childhood educators is notably absent in the research literature. Guo, Justice, Sawyer and Tompkins (2011) confirm this finding and suggest that , "given the apparent value of a preschool teachers' sense of efficacy, it is surprising that research examining teachers' sense of efficacy remains limited"

(p.961). Furthermore, Lamorey and Wilcox (2005) say, "In spite of the extensive work conducted in the area of teacher efficacy in the K–12 studies, it is evident that many areas remain unexplored with regard to practitioner self-efficacy in programs serving very young children and their families" (2005, p. 72). In addition, studies conducted on early childhood teacher self-efficacy have primarily involved quantitative analysis using teacher self-efficacy survey instruments. For instance, in Guo, Justice, Sawyer and Tompkins (2011) the method used to assess the relationship between teachers' confidence in their teaching abilities and child engagement, years of teaching experience, and teacher collaborative influence involved a self-administered questionnaire and quantitative analysis for associations. They did not include follow-up interviews to fully explore the associations or uncover how these factors influenced teacher self-efficacy.

Where qualitative methods have been used to study Head Start teacher self-efficacy, they have involved mixed-method approaches, with qualitative inquiry used primarily as a follow-up analysis to tease out the ways in which self-efficacy was associated with teacher performance or attainment of degrees (Ciyer et al., 2010). Finally, qualitative analysis has been used to study early childhood teacher self-efficacy as a means of identifying the impact of teacher self-efficacy on children's learning or teacher performance (Guo, Justice, Sawyer & Tompkins, 2011). Studies of early childhood teacher self-efficacy have not focused on the sources of teacher self-efficacy or how teacher self-efficacy is developed and promoted within varied contexts and settings (Guo, Justice, Sawyer & Tompkins, 2011; Klassen et al., 2010; Knoblauch & Woolfolk Hoy, 2008).

Across both the K–12 and early childhood literature on teacher self-efficacy researchers consistently call for a more thorough examination of the sources of teacher self-efficacy and the factors that promote or hinder teacher self-efficacy across different settings (Guo, Justice, Sawyer & Tompkins, 2011; Klassen et al., 2010; Knoblauch & Woolfolk Hoy, 2008;).

The Problem

Despite the evidence linking high quality early educational programming to children's social and academic outcomes, researchers have demonstrated that the majority of early

childhood programs do not rise to the level of quality necessary to positively impact children's growth in these areas. The quality of early care and education settings is on average "mediocre regarding the kinds of interaction and stimulation known to produce developmental gains for children" (Pianta, 2006, p.238). Moreover, the poorest quality profile [of early care and education programs] is associated with classroom poverty level, indicating that "children who need the highest quality educational experiences have teachers who are struggling the most to provide it" (LoCasale-Crouch et al., 2007, p.3). Because of the importance of offering high quality learning experiences to children adversely affected by poverty, policy makers have looked to programs that serve this population in an effort to provide high quality compensatory preschool. This increased focus has resulted in concerted efforts to increase the level of quality early care and education delivered to children from low resource homes in programs that serve this population such as Head Start.

The passage of the 2007 Head Start Act and its provision for the measurement of teachers' interaction with children reflects a need to ensure that Head Start programs across the nation deliver preschool services at a level of quality proven to contribute to positive child outcomes. Recent initiatives aimed at evaluating the effectiveness of Head Start have included an increased focus on preschool programming and the instructional strategies of Head Start teachers. Evidence indicates that in more than a third of Head Start grantees, teachers are delivering instructional support below the threshold indicating positive outcomes for children (Office of Head Start, 2013).

Given the disconnect between what research indicates to be necessary for affecting child outcomes and Head Start teachers' instructional practice, it is important to understand factors associated with increasing preschool teachers' effective provision of instructional support so that educational leaders can nurture and develop teachers' skills in this area. One factor that researchers have associated with higher quality classroom instruction, implementation of instructional innovation, and increased child achievement in the K–12 grades is teachers' sense of

self-efficacy (Berman & McLaughlin, 1978; Ghaith & Yaghi, 1997; Guo, Piasta, Justice & Kaderavek, 2010; Justice, Mashburn, Hamre & Pianta, 2008; Nie et al., 2013). The need to improve Head Start teachers' ability to provide instruction supports for children from low resource homes and the potential that teacher self-efficacy has for increasing teachers' capacity to provide and sustain effective instructional supports, indicates a need to build on the small body of mostly qualitative research on early childhood teacher self-efficacy.

Purpose of the Study

The purpose of this qualitative study was to describe, with a multiple case study, highly efficacious early career Head Start teachers' provision of instructional support and the ways in which process and structural elements of the preschool environment influence their self-efficacy. For the purposes of this study teacher self-efficacy was defined as Head Start teachers' belief in their ability to teach in ways that produce developmental benefits for children (Bandura, 1997; Hoy & Woolfolk, 1993; Tschannen-Moran and Hoy, 2001). In addition to describing Head Start teachers' provision of instructional support, a particular focus of the study was Head Start teachers' belief in their ability to provide and sustain effective instructional supports such as rich dialogue and feedback to promote children's higher order thinking and language skills because these have been found to be predictive of later academic and social success (Guo, Piasta, Justice & Kaderavek, 2010; Justice, Mashburn, Hamre & Pianta, 2008) and because they are included in current Head Start accountability efforts. Structural elements of the environment in which teaching occurs are such things as class size, program policies, and number of co-teachers; process elements include things such as planning time, reflective supervision, and professional development experiences.

Significance of the Study

This qualitative study of Head Start teacher self-efficacy builds upon a small but emerging body of research in the early childhood field about the ways in which teacher self-efficacy positively affects learning outcomes for children. The research of early childhood teacher

self-efficacy has thus far focused almost exclusively on the use of survey and quantitative data to demonstrate associations between teacher self-efficacy and the improved use of curricular strategies toward increased learning outcomes for children exposed to such supports.

The findings from this qualitative look at teacher self-efficacy provide information about: a) teachers' beliefs in their ability to teach in ways that are beneficial to children; and, b) characteristics of the early childhood workplace that promote or hinder a teacher's self-efficacy in the delivery of instructional support. Developing a greater understanding of how teacher self-efficacy is influenced by variables in an early childhood setting is informative for educational leaders of early childhood programs who wish to promote teacher self-efficacy among their staff. Information regarding how to promote teacher self-efficacy is critical to: a) those who provide professional development to improve the quality of early childhood programs; and, b) policy makers and administrators who fund such quality improvement activities. Adding to the small but emerging literature on early childhood teacher self-efficacy helps to inform the ways in which early childhood teacher self-efficacy is developed and sustained toward improved social and academic outcomes for children.

Chapter Summary

This chapter provided an introduction to the problem in practice that this study explored. Information about recent efforts to hold Head Start programs accountable for a level of quality that research has indicated makes a difference in children's social and academic outcomes was presented to set the context in which this study of Head Start teacher self-efficacy was conducted. Chapter Two provides a review of literature relevant to this study. Chapter Three provides the design of the study of Head Start teacher self-efficacy including data collection, management and analysis procedures, and ethical considerations. Chapters Four, Five, and Six include data collected in the study, and Chapter Seven provides the findings of the study and a discussion of those findings in light of the current literature on early childhood teacher self-efficacy and instructional support.

CHAPTER TWO

REVIEW OF RELEVANT LITERATURE

Three major theoretical frameworks structure this review. First, to understand the context in which the Head Start teacher delivers instructional support, it is important to explore the research related to the construct of quality in the early childhood setting. Second, because children's learning and academic success in the K–12 years have been linked to early childhood teacher self-efficacy (Guo, Piasta, Justice & Kaderavek, 2010; Justice, Mashburn, Hamre & Pianta, 2008) Bandura's theory of self-efficacy (1997) is included in the review. The third framework in the review is teacher self-efficacy as defined and studied in the K–12 research literature (Hoy & Woolfolk, 1993; Tschannen-Moran and Hoy, 2001). The chapter ends with the rationale for this study and the conceptual framework that guided its design.

Quality in Early Childhood Programs

For the estimated 21.6% of children who live at or below the poverty level in this country (U.S. Census Bureau, 2010), ensuring that early childhood programs offer the quality of developmentally appropriate educational experience that expose children to pre-academic content and opportunities to develop social skills can make a huge difference in their readiness for public school. Before entering kindergarten, the average cognitive scores in literacy and mathematics of preschool-age children in the most affluent socio-economic group are 60 percent higher than those of children from lower socio-economic (at or below the federal poverty guidelines) groups (Lee & Burkham, 2002). In addition, in their landmark study on children's early language exposure, Hart and Risley (1995) found that by 48 months of age children in professional homes were exposed to an average of 45 million words compared to an average exposure of 13 million words for children in low-income homes. These differences in language experiences result in large disparities in vocabulary development for children from low-income homes. These disparities are still present in third grade (Hart & Risley, 1995), indicating that gaps in children's readiness are not necessarily mitigated once they have educational experiences similar to their

more affluent peers in elementary schools. Similarly, children who enter elementary school with different skill levels in math follow different but parallel trajectories of math achievement; they start at different levels and maintain that difference over time (Crosnoe et al., 2010).

The research indicating that children from low-income households enter public schools with a deficit in school readiness skills has emphasized the need to provide early childhood programming that is rich in the types of learning experiences that promote pre-academic competencies (Campbell & Ramey, 1994; Hamre & Pianta, 2007; LoCasale-Crouch et al., 2007). Early childhood programs have the potential to change a child's academic trajectory by ensuring that children with low socio-economic status enter kindergarten with language, literacy and numeracy skills on par with their more affluent peers (Neuman, 2009). These programs must be of high quality, offering children rich interactions with adults and peers, and developmentally appropriate curricula to maximize children's growth and development (Neuman). Such programming requires a skilled teacher to provide developmentally appropriate activities intentionally designed to foster cognitive and social development.

Evidence that this capacity is lacking in our current early childhood system is found in the research (Pianta, 2006). Despite the evidence linking high quality early educational programming to children's social and academic outcomes, researchers have demonstrated that the majority of early childhood programs do not rise to the level of quality necessary to positively impact children's growth in these areas. Large scale studies of classroom quality in public prekindergarten and Head Start programs have been conducted nationwide, providing a glimpse of programming at the classroom level (Pianta, 2006). These studies provide observational data at the classroom level from over 240 prekindergarten classrooms in six states (Bryant et al., 2002), 223 kindergarten classrooms in three states (Pianta et al., 2002), over 900 first grade classrooms in 295 school districts in 32 states (NICHD ECCRN, 2002), and over 900 third grade classrooms in more than 35 states (NICHD ECCRN, 2003). Because of the observations included in these studies Pianta (2006) describes the average early care and educational setting as:

> Socially positive but instructionally passive; children listen and watch, but much time is spent on routines or management of materials...despite being generally well-organized and busy places, classrooms appear low on intentionality, a term that refers to directed, designed interactions between children and teachers in which teachers purposefully challenge, scaffold and extend children's learning (p. 239).

Adding to this dilemma, researchers studying the quality of early care and education settings in public prekindergarten (including 15.2% with Head Start funding) found "the poorest quality profile [of early care and education programs] was associated with classroom poverty level, suggesting that the children who need the highest quality educational experiences have teachers who are struggling the most to provide it" (LoCasale-Crouch et al., 2007, p.3). Because of the importance of offering high quality learning experiences to children adversely affected by poverty, policy makers have looked to programs that serve this population in an effort to provide high quality compensatory preschool. This increased focus has resulted in concerted efforts to increase the level of quality early care and education delivered to children from low resource homes in programs that serve this population such as Head Start.

Quality in Head Start Programs

This section of the literature review includes a discussion of the history of Head Start, as well as recent research and evaluation efforts to discern the quality of Head Start programs.

History of Head Start Programs. Head Start is a comprehensive early childhood program designed to promote the school readiness of low-income children by providing preschool education, health, and nutritional services. The primary purpose of Head Start is to mitigate the effects of poverty for children, allowing them to enter school on equal footing to their more affluent peers. This purpose, along with the federal funding of Head Start, links the program to recent accountability requirements such as the early childhood portion of No Child Left Behind, Good Start Grow Smart. These requirements have pushed Head Start programs to focus on pre-

academic skill building, most prominently in the area of early literacy, although Head Start promotes goals beyond academic readiness that carry over from the origination of the program.

Evaluation of Quality in Head Start Programs. A recent study of the impact of Head Study did not indicate significant positive correlations between children's experiences in Head Start and later gains in school. The Head Start Impact Study, the most recent look at Head Start outcomes used an experimental design and included a nationally representative sample of programs. The total sample, spread over 23 different states, consisted of 84 randomly selected Head Start grantees/delegate agencies, 383 randomly selected Head Start centers, and 4,667 newly entering children, including 2,559 in the 3-year-old group and 2,108 in the 4-year-old group (U.S. Department of Health and Human Services, 2010c). The randomized sample, as well as a control group consisting of children from the same demographics who were using other non-Head Start services available in the community, were used to determine the impact of Head Start services (U.S. Department of Health and Human Services, 2010a). Although the study found evidence of initial benefits for children receiving the Head Start services, these were minimal and did not persist once children entered school (U.S. Department of Health and Human Services, 2010a).

Additional evidence pointing to the ineffectiveness of Head Start in producing significant long term outcomes for children's school success arose from a 2003 longitudinal study, the Head Start Family and Child Experiences Study (FACES). This study included a random sample of Head Start children and reported similarly disappointing results, namely that data pointed to minimal increases in standard scores for literacy and math from fall to spring (Zill et al., 2006). Although the study did not use a control group, researchers compared children's scores on child assessments with national norms, looking at the extent to which Head Start children moved toward national average scores during Head Start and kindergarten years (Zill et al., 2006). The results of these studies, as well as an increased focus on accountability for programs receiving federal funding, put the effectiveness of Head Start under enhanced scrutiny.

Recent initiatives aimed at evaluating the effectiveness of Head Start have included an increased focus on the delivery of high quality preschool programming because such programming has the potential to improve children's academic and social outcomes in K–12 years and after high school graduation. Since large scale studies of public prekindergarten and Head Start programs have demonstrated a lack of quality in early education and care settings (Pianta, 2006), it is important to understand the factors associated with high quality early childhood programs so that these may be supported. This section of the literature review includes an explanation of the importance of early childhood program quality as well as a discussion of the following issues: a) characteristics of early childhood programs that define quality; b) the way that researchers define and measure early childhood program quality; and, c) the ways that early childhood program quality affects teaching and learning.

Quality and Improved Outcomes for Children

Researchers have linked improved child outcomes, and thus school readiness, to the provision of high quality early childhood educational experiences in studies that considered the impact of early childhood education from birth to age five (Ramey & Campbell, 1984; Schweinhart, Berrueta-Clement, Barnett, Epstein, & Weikart, 1985). Using a longitudinal design, these researchers also followed children into young adulthood, and measured cognitive and academic functioning at age 12, 15 and into adulthood (Campbell & Ramey, 1994, 1995; Campbell, Ramey, Pungello, Sparling & Miller-Johnson, 2002; Schweinhart et al., 1985). This research is based upon the findings from two seminal studies conducted in the 1960's and 1970's, the Carolina Abecedarian Study (Ramey & Campbell, 1984) and the High/Scope Perry Preschool Project (Schweinhart et al., 1985). These studies involved research on the impact of early care and education programs utilizing best practice models on outcomes for low-income children in later life. While research that occurred concurrently or after these studies has demonstrated mixed outcomes for children who received early intervention in the form of early childhood

programming, Head Start, public preschool or some combination of these, the Abecedarian and Perry Preschool studies are seen as the most conclusive because of their experimental designs.

Both the Abecedarian and Perry Preschool studies used randomized assignment to a control or experimental group, had limited attrition in sample populations, and used a longitudinal design that followed children well into mid-life. The Abecedarian and Perry studies identified positive impacts on children including, lower grade retention and referral for special education, and higher rates of high school graduation (Campbell & Ramey, 1994, 1995; Campbell et al., 2002; Schweinhart, et al., 1985). The Perry Preschool Study followed 123 African Americans born in poverty and at high risk of failing in school (Schweinhart, Barnes, & Weikart, 1993). At ages 3 and 4, researchers randomly divided these individuals into a group who received a high quality preschool program and a group who received no preschool program and collected data on both groups annually from ages 3 through 11 and at ages 14, 15, 19, 27, and, recently, 39–41 (Schweinhart, Barnes, & Weikart, 1993). The study included a significant focus on the effects of early care and education on socialization and found that participants who received early educational experiences in these model programs had better relationships with friends, experienced higher earnings and were more likely to hold a job, had fewer incidences of pregnancy outside of marriage, and had committed fewer crimes by the time they reached adulthood (Schweinhart, et al., 1985).

The Carolina Abecedarian Project study randomly assigned 111 infants from low-income families to treatment and control groups and collected data on 104 of the participants at age 21 (Campbell et al., 2002). The treatment group received full-time child care that included play-based educational activities to foster young children's cognitive, motor, and social development. The study identified program benefits throughout participants' schooling on their intellectual performance and academic achievement (Schweinhart, 2001). Other findings include more participants being in school at age 21 (40% vs. 20%), more having attended a 4-year college (35% vs. 14%), and a higher average age at birth of first child (19.1 vs. 17.7) (Schweinhart).

Both of these landmark studies, while influential in the field of early care and education, have also been criticized because of the cost of the interventions involved and concerns that typical Head Start and preschool programs could not replicate the intensive intervention these model programs offered. Both model programs had low child to teacher ratios (average of one teacher for every six children), used curricula emphasizing cognitive skill development, and employed highly qualified teachers. In the Perry Preschool Project teachers also provided a weekly 1.5-hour home visit to support parents' implementation of the preschool curriculum at home (Schweinhart, 2001).

Defining Critical Elements of Quality in Early Childhood Programs

Because of the cost of replicating early childhood interventions such as those described above, researchers since have attempted to understand more deeply which discrete elements of the programming in these studies most benefitted children. To determine which elements of programming matter the most, researchers have sought to define and measure specific program characteristics in an attempt to define program "quality" in early childhood education.

Frede (1995) reviewed studies designed to define and measure the characteristics of programming in early care and education to ascertain "common elements that may be critical to the long-term effectiveness of preschool" (p.115). Within this research, she introduced a conceptual framework through which to examine the interrelated factors of program quality, which she defined as both program structure and program processes. Frede defined program "structure" as including characteristics such as class size, the ratio of children to teachers, and service intensity. Program "processes," Frede explained, include things that help teachers respond to individual children (reflective teaching practice and close relationships with parents). Finally, another aspect of process, curricula, serves as a bridge between home and school (Frede).

Frede (1995) studied each of these quality components to understand more clearly their impact on children's developmental outcomes. Frede's conclusions pointed to the structural elements of small class sizes with low ratios of children to teachers, and a concentrated or long-

lasting intervention as consistently present in effective early care and education programs. Process variables of programming identified in her analysis included: a) teachers who received support to reflect on and improve their teaching practices; b) ongoing, child-focused communication between home and school; and, c) use of some curriculum content and classroom processes that are similar to what children encounter in traditional schooling (Frede).

These structural and process elements, together, were most commonly present among the effective program models Frede reviewed and have come to be widely accepted by researchers and practitioners in the field of early childhood education as providing the most accurate definition of characteristics of quality in early childhood settings.

Measuring Structural and Process Quality. In a paper prepared for the National Early Childhood Accountability Task Force, Sally Atkins-Burnett (2007) outlined the "measurement of child outcomes in the context of evaluating the effectiveness of preschool programs for children" (p.1). In doing so, she acknowledged that in addition to examining child outcomes, researchers must measure the quality of the program in which the child is cared for and educated. She added, "the research on the measures of child outcomes indicates that children's performance is 'situation specific'" (2007, p.15). Therefore, understanding the influence of environment and teacher-child interaction, or the structural and process elements of quality, is critical in the measurement and assessment of children's developmental outcomes. These two important constructs of quality, structural and process characteristics, are defined in the research as: a) program structure, or elements such as class size, the ratio of children to teachers, and service intensity [length and number of days, etc.] (Frede,1995); and, b) program processes, including things that help teachers respond to individual children (reflective teaching practice, curriculum methods, teacher-child-interaction, and close relationships with parents) (Frede).

Atkins-Burnett (2007) offered that measures of the environment such as the Early Childhood Environmental Rating Scale-Revised (Harms, Clifford, & Cryer, 2004) which emphasize structural components of quality have been used widely in studies of child care quality

and that ratings of good to excellent (5 or higher on a 7 point scale) were often associated with greater school readiness. As Atkins-Burnett notes, the use of the Environmental Rating Scale (Harms et al., 2004) to measure the structural elements of child care programming is an important component in the assessment of child care quality. In her discussion, Atkins-Burnett adds that a tool more sensitive to the role of the teacher in supporting children's development (process quality) is needed to measure those relationships and interactions between teacher and child that are most predictive of children's later cognitive and social abilities (2007).

Atkins-Burnett (2007) outlined existing measures of quality used to evaluate teacher-child interaction including the Caregiver Interaction Scale (Arnett, 1989), the Adult Involvement Scale (Howes & Stewart, 1987), the Observational Record of the Caregiving Environment (National Institute of Child Health and Human Development, 1996), and the Child Caregiver Observation System (Boller & Sprachman, 1998). These measures focus on the relationship between child and caregiver and the supportive qualities of the interactions between adult and child. These tools reflect a pedagogical stance that underpins the early childhood field; they demonstrate a belief that children's learning happens within the context of the relationship between adult and child, and that supportive, nurturing interaction, as well as interaction with an engaging environment, will develop a child's secure exploration of the world, encourage natural curiosity, and support learning. Based on the constructivist perspective of Piaget (Forman, 1983), as well as Bowlby's attachment theory (Bowlby, 1988), a key belief of the early childhood field is that by providing a consistently nurturing adult who acts as a secure base, and enriching materials for exploration, teachers facilitate children's construction of their own learning. This pedagogical approach is valuable, and for children who are exposed to a resource-rich environment, or Hart and Risley's "professional homes" (1995) with frequent exposure to language and problem solving, as well as back and forth relational exchanges with consistent and caring adults, this model of an early learning setting is ideal, as parents and caregivers together provide the stimulation and care that children need to grow and develop on a typical continuum.

However, for those children for whom the home environment is resource-poor, either because of a lack of financial stability, or regardless of family income, a lack of stimulation and engagement, the role of the teacher as facilitator is even more crucial (Chien et al., 2010). In these settings, seeing the teacher as a direct facilitator who scaffolds children's learning within their zone of proximal development (Berk & Winsler, 1995) is an effective lens through which the early childhood teacher must view her practice. In early childhood settings serving a large population of children from low resource homes this pedagogical shift means that the teacher's interactions must focus not only on the creation of a caring and stable relationship, but also on exposure to more explicit early learning experiences. This increased focus on intentionality suggests a role for the early childhood teacher that has traditionally been viewed as too directive when working with very young children. However, as David Dickinson explains, the study of child development has led to a view of child cognition "less as a unitary construct that emerges as the child engages the world through solitary and social play and more in terms of distinct domains of socially constructed systems of knowledge and skills that lay the groundwork for later academic success" (2006, p. 184). In response, a new role for early childhood teachers has emerged.

> There is greater awareness of the importance and sophistication of knowledge that children acquire through verbal input, direct exploration is no longer viewed as the primary means by which children learn to conceptualize the world, and self-regulation is recognized as a critical aspect of social competence. Although teachers still are viewed as providing needed emotional support because the affective bonds they form with children support healthy emotional growth, greater attention is being accorded to their instructional role (Dickinson, 2006, p. 184).

This newly promulgated role of the early childhood teacher is sometimes at odds with an early educator's view of developmentally appropriate practice (Lobman & Ryan, 2007). This conflict is not surprising given that as a field, early childhood education has been slow to embrace

a more deliberate approach to teacher-directed instruction or support of discrete skills. The creation of early learning guidelines has prompted consideration of which discrete skills and abilities children should demonstrate in the preschool years; yet very few states actually include specific literacy and numeracy learning trajectories in their documents (Kagan & Scott-Little, 2004). The lack of inclusion of learning trajectories in the learning standards from states is indicative of the place in which the early childhood field finds itself.

As a field, early childhood educators understand the research indicating a need to infuse teaching with early learning skill development, yet worry that doing so will cause an inappropriate emphasis on drill and skill activities in early childhood programs (Lobman & Ryan, 2007). For instance, a skill such as phonemic awareness can be taught with rhyming and song play, poetry, and read-aloud stories that play with sound repetition, but in many early childhood classrooms teachers may not have the educational background or training to embrace a developmentally appropriate approach to instructional support of discrete skills. As a result, in some classrooms support of a discrete literacy skill such as phonemic awareness might end up resembling more traditional approaches such as repetitive enunciation activities where letter and sound combinations are cued by the teacher in a more directive and controlling fashion (i.e. "What sound does B make?"). Thus, hesitancy on the part of the early childhood field to embrace the movement toward a more academic instruction is not totally unwarranted given the lack of consistent professional qualifications for the workforce.

Concern about the appropriateness of early instruction of skills deemed academic in nature extends into the public pre-K sector of professionals as well. In a study to determine the meaning of school readiness for a sample of urban and rural schools in North Carolina, Patricia Wesley and Virginia Buysse (2003) found similar tensions between teachers' personal teaching philosophy and what they perceived as inappropriate instructional expectations in the preschool years.

> Teachers described several tensions related to their views of readiness: the conflict between personal philosophies of teaching and learning based on developmentally appropriate practices and the instructional expectations set forth in the state standard course of study; the pressure placed upon children, teachers, and families for children to perform; and the inconsistency of defining kindergarten eligibility by both chronological age and a set of required entry skills (Wesley & Buysse, p. 358).

This tension between what many perceive as an inappropriate push down of public school academics into preschool settings continues in the debate around school readiness and early childhood teacher effectiveness. What is often missing in this debate is clarity about how the two critical concepts—the need for some teacher-directed instruction of discrete skills, and attention to the hands-on, constructive approach to learning that is most appropriate for this age group—can be married.

Measuring Teachers' Instructional Support of Early Learning. To measure teachers' ability to create supportive relationships in which children's development may be scaffolded, researchers have looked to develop new tools sensitive to the many components involved in teacher-child interaction. One such tool is the Classroom Assessment and Scoring System (CLASS), an observational instrument developed to assess classroom quality in preschool classrooms (Pianta, LaParo, & Hamre, 2008). "The dimensions assessed by the CLASS were derived from a review of constructs assessed in classroom observation instruments used in child care and elementary school research, literature on effective teaching practices, focus groups, and extensive piloting" (Pianta, et al., p.1). These dimensions of teacher-child interaction include the emotional supports, classroom organization strategies, and instructional supports that are employed by teachers to support children's learning (Pianta, et al.). In the development, field testing, and use of the CLASS (Pianta et al.) in prekindergarten LaParo, Pianta, and Stuhlman (2004) used data from a national sample of 224 prekindergarten classrooms in six states to provide reliability and validity information about the CLASS (Pianta et al.) tool. LaParo and her colleagues found that

prekindergarten classrooms provide moderately high emotional support but fairly low instructional support for children, especially with regard to concept development and feedback, which were in the low or low moderate range.

> The low-to middle-range average rating for concept development indicates that preschool teachers do not typically engage in extended discussions that encourage children to hypothesize, predict, and problem solve or engage in higher-order thinking. A mean of 2 to 3 [low-to middle-range] indicates that these classrooms are characterized by many discussions and activities involving facts and recall during which children have few opportunities to expand on their ideas or to answer open-ended questions (LaParo et al., 2004, p.422).

Data from this original validation study by LaParo is consistent with national data, which indicate that when measured with the CLASS tool, preschool classrooms typically score at the moderate to high level of quality in the dimensions of emotional support and classroom organization, whereas classrooms typically score at a low level of quality on the provision of instructional support. "These findings have been replicated in several large national studies of ECE settings, including state pre-K, Head Start, and community-based child care centers" (Pianta et al., 2005). Because higher scores in the domain of instructional support, as measured by the CLASS, are linked to positive outcomes in children's academic, language, and problem solving skills (Curby et al., 2009; Hamre & Pianta, 2001, 2005; Mashburn et al., 2008) there is a current focus within the Head Start community to measure and enhance the quality of instructional support delivered in preschool classrooms.

The theoretical framework for the domain of instructional support in the CLASS (Pianta et al., 2008) tool is based upon research on children's cognitive and language development (Pianta et al.). According to the authors of the CLASS (Pianta et al.), children's construction of knowledge, their engagement and active exploration of learning concepts versus passive reception of knowledge from a teacher, and their ability to understand and explain their thinking

(metacognitive skills) are the key learning objectives measured by the instructional support domain of the CLASS (Pianta et al.). Thus the instructional support domain of the CLASS tool includes these dimensions: a) concept development, or the way in which teachers use discussion and activities to promote children's higher order thinking versus teachers' use of rote instruction; b) quality of feedback, or how teachers extend children's learning by responding to children's comments, ideas, and work throughout an activity; and c) language modeling, which includes the extent to which teachers facilitate and encourage children's use of language (Pianta et al.). "In classrooms with high quality instruction, there is frequent dialogue between teachers and students, and students are encouraged to voice their ideas, resulting in many opportunities for children's development of language" (Curby et al., 2009). In classrooms with high scores on the instructional support domain of the CLASS tool, teachers work side by side with children to facilitate learning, asking open-ended questions about children's work, participating in hands-on activities to enhance and extend children's understanding, and observing children's own interaction with learning materials to determine appropriate levels of support. Employing instructional support strategies in early childhood classrooms is critical to scaffolding children's learning experiences and thus their overall development of social and academic skills. The CLASS tool has been established as a valid and reliable measure of the quality of teacher-child interaction (Pianta et al., 2008) and has been used by researchers to study the relationship between high quality teacher-child interaction and children's developmental outcomes.

Researchers have employed experimental design, using quantitative analyses, to study associations between teacher-child interaction and children's social and academic outcomes in preschool and Head Start classrooms nationwide. These researchers found that children's language and problem solving skills were associated with higher levels of teachers' instructional and emotional supports (Hamre & Pianta, 2001, 2005). Moreover, associations between teacher-child instructional support and children's outcomes in academic and language skills were also established in subsequent studies (Curby et al., 2009; Mashburn et al., 2008). Researchers have

further isolated domains within teacher-child interaction to find that the domains of emotional support and classroom organization had a positive feedback loop with each other and that concept development, a subset of instructional support in teacher-child interaction, was the strongest predictor of children's academic outcomes (Curby et al., 2009; Curby, Grimm & Pianta, 2010). The research pointing to the need for teachers to engage in intentional interactions with children that challenge their thinking is robust. It is, therefore, important to consider the capacity of the teachers who will be expected to demonstrate proficiency against this measure of interaction. This capacity includes their belief in their ability to provide interactions that effectively support children's learning, and that engaging in such interactions will promote positive outcomes for children. These two concepts are well-defined within Albert Bandura's research on self-efficacy. A discussion of Bandura's work is included in the next section of this chapter.

Self-Efficacy

Albert Bandura's definition of self-efficacy refers to "belief in one's capabilities to organize and execute the courses of action required to produce given attainments" (1997, p.3). Self-efficacy is an important consideration in the performance of teachers and their students because as Bandura explains, "Where performance determines outcome, efficacy beliefs account for most of the variance in expected outcomes" (1997, p.24) Further, Bandura explains that peoples' self-efficacy influences courses of action, level of effort, length of perseverance in the face of obstacles, resilience to adversity, and the characteristics of thought patterns as either self-supportive or self-destructive (Bandura, 1997). Bandura's theory of personal efficacy includes both outcome and efficacy expectations. While outcome expectation refers to a person's estimate that a certain behavior will produce a specified outcome, efficacy expectation "is the conviction that one can successfully execute the behavior required to produce the outcomes" (Bandura, 1997, p. 193). Further, Bandura's theory includes a relationship between such internal personal factors including cognitive, affective, and biological events that impact efficacy, and the external environment in which the individual exists (1997). These personal and external factors interact to

influence behavior. This "triadic reciprocal causation" as Bandura defines it, is a transactional view of self and society in which personal and environmental characteristics influence one another (1997). In this integrated model "social influences operate through self-processes that provide the actions" (p. 6, 1997). In Bandura's theory of self-efficacy, it is the complex interaction between cognitive and social factors that determine an individual's behavior. This section of the literature review considers two constructs of Bandura's theory of self-efficacy that are relevant to the promotion of teacher efficacy; sources of self-efficacy and mastery modeling.

Sources of Self-Efficacy

According to Bandura (1997) self-efficacy is not a static characteristic, but rather something that can change in response to environmental or personal influences and factors; an individual's belief in his or her ability to be successful in an endeavor varies according to an individual's prior experience, perceived self-competence, and many other factors. Sources of self-efficacy include: a) an individual's personal mastery experiences, where success in an endeavor builds a person's belief in his or her ability to repeat such actions in the future; b) vicarious experiences, where individuals see others with similar competencies and in similar situations experiencing success; c) verbal persuasion, where an individual's ability to be successful is scaffolded by another's encouragement (as long as that encouragement is realistic in nature); and, d) psychological and affective states which act to support or inhibit a person's performance and behavior. Of all of the above sources of self-efficacy, "enactive mastery experiences are the most influential source of efficacy information because they provide the most authentic evidence of whether one can master whatever it takes to succeed" (Bandura, 1997, p.80). While self-efficacy is formed early in life as a child learns to believe in his or her ability to influence their earliest experiences with adult caregivers, self-efficacy continues to develop and is influenced by life events and developmental changes (Bandura,1997). Although self-efficacy is more difficult to influence as individuals age and have more life experiences, which have built or eroded self-efficacy, it is not a fixed disposition and therefore can be influenced by new experiences. This

distinction is important to remember as one considers the self-efficacy of teachers, as it implies that self-efficacy is a trait that can be developed and nurtured toward improved teacher performance.

Mastery Modeling. In Bandura's (1997) discussion of the ways in which humans develop knowledge and skills, he offers "mastery modeling" as an ideal mechanism to support adult learning within an occupational setting. He states that, "much social learning occurs either deliberately or inadvertently by observing the actual behavior of others and the consequences" (Bandura, 1997, p.440). In addition, Bandura explains, "in the development of complex competencies, modeling involves the acquisition of knowledge and skills, not merely behavioral mimicry," (1997, p.441). In Bandura's explanation of mastery modeling, social learning that occurs in this form of modeling allows the recipient to assimilate knowledge and skill, using what is learned to make decisions about the application of knowledge and skill to new situations. In this model of social learning, the learner develops competency as he or she applies the learning independently to other situations where it may be appropriate. Bandura's theory is based upon research he conducted with adults indicating an intense fear of snakes. Participants with this phobia were divided into three groups with varying levels of support to address their fears. Participants who received live modeling were most successful at resolving their fear of snakes.

> Results of the present experiment provide further evidence that treatment approaches based on social-learning principles can be highly efficacious in producing generalized and enduring psychological changes. Of the three methods investigated, modeling combined with guided participation was most successful in eliminating phobic behavior, in extinguishing fear arousal, and in creating favorable attitudes (Bandura, Blanchard, & Ritter, 1969, p. 194).

Bandura's theory of the use of mastery modeling as an adult learning support is a key consideration in the development of the instructional efficacy of the Head Start teacher when one recalls that the current focus on the support of children's learning of pre-academic skills is a

recent emphasis in the early childhood teaching profession. In the context of education, mastery modeling can take several forms: work with a senior colleague or supervisor or with someone outside the organization who can model and coach. Many of these forms of mastery modeling within the education field have been studied as part of research conducted on teacher efficacy. A definition of teacher efficacy and a review of this body of literature are included in the next section of this literature review.

The Definition and Study of Teacher Efficacy

In response to Bandura's research on self-efficacy as a driver of human behavior, researchers have sought to define efficacy in the field of education. This section of literature review begins with a definition of teacher efficacy. The remainder of this section includes a review of the research on personal and contextual influences on teacher efficacy, teacher career stages, and Head Start teacher self-efficacy.

Defining Teacher Efficacy. The concept of teacher efficacy is one that is well studied as it relates to teachers in public education. Researchers have defined teacher efficacy in terms of: a) personal teaching efficacy, or a teacher's belief that they can raise their teaching performance to a level believed to impact children's learning; and, b) general teaching efficacy, or a teacher's belief that teaching at such a level will actually result in increased learning outcomes for children (Hoy & Woolfolk, 1993). Tschannen-Moran and Hoy (2001) further defined general teaching efficacy as teacher's beliefs about the influence teachers can have in the face of perceived obstacles such as a child's class, gender, home life, etc. They also defined personal teaching efficacy as teachers' belief in their ability to overcome factors that make learning difficult (Tschannen-Moran & Hoy). Both of these definitions were based on the seminal Rand studies (Armor et al., 1976; Berman et al., 1977) of teacher efficacy. The Rand studies were based on a two-item teacher efficacy scale that measured personal and general teaching efficacy (Rotter, 1966). Rotter's (1966) early study of teacher efficacy demonstrated teacher's beliefs that factors

under their control ultimately have greater impact on the result of teaching than factors in the environment or in the student (not in the teacher's control).

One of the Rand studies (Armor et al., 1976) examined factors contributing to reading success for low-income children in 20 elementary schools in the Los Angeles area. Armor et al., (1976) found that teacher self-efficacy was associated with larger or consistent gains in children's sixth grade reading scores as compared with national norms for children of the same demographic characteristics. The second study (Berman et al., 1977) identified factors contributing to the continuation of innovative programs, such as the reading enrichment program studied by Armor and his colleagues. In both of these studies, a measure of teacher self-efficacy was used. This measure was based on two items on the survey. One asked teachers to what extent they believed that "when it comes right down to it, a teacher can't really do much [because] most of a student's motivation and performance depends on his or her home environment." The other asked whether the teacher thought that "if I try really hard, I can get through to even the most difficult or unmotivated students." Responses to these two questions were combined into a single measure of efficacy—the extent to which the teacher believed he or she had the capacity to affect student performance (Berman et al., 1977, p 159-160). Berman et al., (1977) found that teacher efficacy was linked to increased student performance, amount of change in teaching practice, and teachers' continued use of methods and materials at the end of a curriculum intervention project. These early studies of the powerful impact of teacher efficacy on children's learning set the stage for a robust research agenda on teacher efficacy in schools. Bandura (1993) found that "teachers' beliefs in their personal efficacy to motivate and promote learning affect the types of learning environments they create and the level of academic progress their students achieve" (p. 117).

Teacher self-efficacy also positively influences teachers' delivery of instructional support strategies that engage students in learning activities. Gibson and Dembo (1984) studied teachers in 208 elementary schools in two neighboring school districts. In addition to using their own version of a teacher efficacy scale to measure teacher beliefs, they also conducted

observations in the classrooms of four low-efficacy and four high-efficacy teachers. This observation measured the time teachers spent on instruction as well as the quality of feedback given to students. Gibson and Dembo's findings suggested, "high efficacy teachers may achieve higher student engagement rates by utilizing whole class instruction and may be better able than low-efficacy teachers to keep other students engaged while instructing small groups.

Ashton and Webb (1983) conducted a similar study in two schools with 1,000 total students and used a similarly designed questionnaire and follow-up classroom observation with two high-efficacy teachers and two low-efficacy teachers. Their findings suggest that teachers with low efficacy doubt their capabilities to influence students' learning (Ashton & Webb, 1983). As a result they may avoid planning activities they believe exceed students' capabilities, while teachers with higher efficacy develop challenging classroom activities and help students succeed on those tasks (Ashton & Webb, 1983). Teachers with higher efficacy are also more likely to persist in their aid to students who struggle with a learning activity (Ashton & Webb, 1983).

Ashton and Webb's observation of teacher efficacy is also consistent with Bandura's explanation of teachers' instructional efficacy (1997) and its impact on the delivery of instructional support.

> Teachers who have a high sense of instructional efficacy devote more classroom time to academic activities, providing students who encounter difficulties with the guidance they need to succeed...Teachers' beliefs in their efficacy affect their general orientation toward the educational process as well as their specific instructional activities (Bandura, 1997, p.241).

Given the influence of teacher self-efficacy on teachers' support of children's learning it is important to think through the personal and contextual factors that influence teacher self-efficacy. The interaction between these personal or internal characteristics of an individual and those of the environment in which she or he lives and works is important to consider when exploring teacher self-efficacy and its impact on teachers' use of instructional support strategies.

For example, teachers may believe that increased instructional support will lead to greater developmental outcomes for children, but they may lack belief in their ability to provide that instructional support. Similarly they may work in an environment that impacts their belief about the level of instructional support they can deliver due to class size or other environmental factors that teachers perceive will influence instructional resources. Conversely, they may believe that they can provide an effective level of instructional support, but not believe that this will impact children's developmental and learning trajectories because of the challenges children bring in to the classroom from their home environment. In any of these instances, understanding how Head Start teachers' self-efficacy operates to influence their ability to provide instructional support is critical to understanding how to help teachers in their efforts.

Despite the importance of understanding teacher's self-efficacy, a specific focus on teacher self-efficacy in early childhood education was notably absent in my review of the literature on this important construct. Guo, Justice, Sawyer & Tompkins (2011) confirm this finding and suggest that "given the apparent value of a preschool teachers' sense of efficacy, it is surprising that research examining teachers' sense of efficacy remains limited" (p.961).

Personal and Contextual Influences on Teacher Efficacy

In Ross's (1994) examination of 88 studies of teacher efficacy, he identified personal attributes and organizational characteristics that were consistently associated with higher teacher efficacy. Ross's criteria for inclusion in the review were: 1) the use of an empirical measure of teacher's beliefs in their ability to bring about learning in their own classrooms and/or their beliefs in the capacity of schools to overcome out-of-school impediments to learning; and, 2) the study had to identify antecedent conditions associated with teacher efficacy or its consequences (Ross, 1994). Teachers studied in Ross's review included teachers in special education resource rooms and teachers in elementary, middle and high school classrooms. None of the studies in Ross's review involved early childhood teachers. In Ross' review, personal and contextual variables associated with higher efficacy across studies included being female, the teacher's

attribution of student success and failure to forces within her control, and elementary level teaching rather than middle and high school teaching. Ross's review of teacher efficacy studies also pointed to the use of more challenging teaching techniques, a willingness to implement innovative teaching strategies, and the use of developmental classroom management practices, as characteristics of teaching practice associated with higher efficacy (Ross, 1994). Ross' review of teacher efficacy studies also indicated that the presence of students who are relatively orderly and of higher ability, and student mastery of cognitive and affective goals were associated with increased teacher efficacy (1994). Finally, Ross found associations between teacher efficacy and schools characterized by low stress and leadership that was responsive to teacher needs (1994).

In a more recent study of the antecedents of teacher efficacy in novice and experienced teachers, Tschannen-Moran and Woolfolk Hoy (2007) indicate that as teachers assess their competency related to classroom instruction they consider contextual variables.

> The assessment of the teaching task requirements will include the resources available; student factors such as their perceived ability, motivation, and socio-economic status; and contextual factors such as school leadership, collegial support, and the availability of resources (p.945).

In their 2007 study, Tschannen-Moran and Woolfolk Hoy used the Teachers' Sense of Efficacy Scale (TSES) (Tschannen-Moran & Woolfolk Hoy, 2001) to study the efficacy beliefs of 225 teachers across elementary, middle and high school settings in Ohio and Virginia. Tschannen-Moran and Woolfolk Hoy found that school setting was unrelated to the self-efficacy beliefs of both novice (three or fewer years of experience) and career teachers (four or more years of experience). For novice teachers, "teaching resources made a significant independent contribution to explaining variance (r =.32) in teachers' sense of efficacy" (Tschannen-Moran & Woolfolk Hoy, 2007, p. 953). For experienced teachers, teaching level was the only contextual variable that was associated with higher efficacy beliefs (r =.21), with teachers of younger children having higher self-efficacy (Tschannen-Moran & Woolfolk Hoy). Mastery experiences with regard to

past performance were related to teacher efficacy for both novice (r =.46) and career teachers (r =.36). Tschannen-Moran and Woolfolk Hoy posit that for novice teachers, who have few mastery experiences to draw from, "other sources of self-efficacy seem to be more salient in their self-assessments of efficacy, including vicarious experience, verbal persuasion, and emotional arousal" (2007, p. 952).

Of particular interest in the Tschannen-Moran and Woolfolk Hoy 2007 study is that for novice teachers, vicarious experiences as well as resources were associated with increased self-efficacy. This implies a critical role for the educational leader, whether supervisor, mentor teacher, or peer leader, in the school setting because of his or her ability to impact teacher self-efficacy at a time when it is most susceptible to influential modeling. For instance, evidence in the literature about when teachers are most susceptible to this type of feedback indicates that efficacy is most malleable in the pre-service years (Hoy and Woolfolk, 1990); other researchers found evidence that efficacy tends to be resistant to change for more experienced teachers (Tschannen-Moran et al., 1998). Finally, this consideration of the timing and influence of contextual supports is consistent with Bandura's theory of the development of self-efficacy. Bandura (1997) cautioned that positive changes in self-efficacy only come through "compelling feedback that forcefully disrupts the preexisting disbelief in one's capabilities" (p.82). The modeling of intentional instructional support, coupled with resources early in a teacher's career, have the potential to support the development of teacher self-efficacy.

Teacher Career Stages and Self-Efficacy. Researchers have found years of teaching experience to be negatively associated with teachers' implementation and adoption of new teaching practices (Berman & McLaughlin, 1978; Ghaith & Yaghi, 1997; Nie et al., 2013). Since research indicates that teacher self-efficacy is most malleable in the pre-service years (Hoy & Woolfolk, 1990), teacher career stages need to be considered as part of an exploration of the ways in which teacher efficacy is promoted.

According to Christenson, Burke, Fessler, and Hagstrom (1983), "a teacher's middle years, variously defined in the literature as the fourth to the twentieth year, reflect at least partial resolution of the beginning teacher's uncertainty and trepidation," (p.5). Christensen et al. note that many researchers have offered various career stage theories, which when considered together, indicate that teachers typically progress from initial insecurity and rigidity, to mid-career stability and deepening professional commitment, and finally to mature confidence, competence, and satisfaction in their careers (1983, p.17). This progression of teacher development indicates that early-to mid-career teachers may be most open to innovations in teaching practices and in efforts to promote teacher self-efficacy. Burden (1982), identified a similar time period, the second through fourth year, in a teacher's career when she or he "develops a new awareness of the complexity of children and an eagerness to learn new skills to meet pupils diverse needs...and mastered some initial teaching skills and were confident about trying new teaching methods," (p.5).

Lillian Katz defined the developmental stages of preschool teachers in 1972. Her framework was developed to inform the types of training supports teachers need based upon key developmental tasks in the first through fifth year of teaching. Katz's first stage, survival, occurs during the first year of teaching when "the full impact of responsibility for a group of immature but vigorous young children...inevitably provokes teacher anxieties" (p.3). In Stage two, consolidation, teachers consolidate overall gains made during the first stage and differentiate specific skills and tasks to be mastered next (p.4). "During the third or fourth year of teaching, the teacher begins to tire of doing the same old things...widening their scope of reading...and ready to take a close look at their own classroom teaching," (p.7). Katz labels this fourth stage as renewal (p.6). The final stage is maturity where "the teacher has come to terms with herself as a teacher...and begins to ask deeper and more abstract questions" (p.8). Katz's theory on the timing of supports to teachers indicates that these supports "...should be shifted so that more training is available to the teacher on the job than before it [since] many teachers say that their pre-service

education has had only a minor influence on what they do day to day in their classrooms" (p.9). Katz's theory of early childhood teacher career stages suggests the time period between renewal and maturity, or the fourth and fifth years of teaching, as the stage of career development in which a preschool teacher would be ready to examine and refine her practice.

The influences of teacher self-efficacy on classroom instructional support, adoption of educational innovations, and children's academic outcomes, as well as the antecedents of teacher self-efficacy, have been well documented in the literature on K-12 teacher self-efficacy. This level of examination has not been the case for teachers in preschool or Head Start settings where research about the impact of efficacy beliefs is less prevalent.

Head Start Teacher Self-Efficacy

Though research related to Head Start and other preschool teachers' self-efficacy is limited, some emerging research sheds light on self-efficacy issues in early childhood classrooms. In their exploratory study of the factors related to preschool teachers' self-efficacy, Guo, Justice, Sawyer, and Tompkins (2011) examined how teacher and classroom characteristics predicted teacher self-efficacy for 48 teachers in 38 publically funded preschool classrooms serving at-risk children in the U.S. In the fall of the academic year, teachers completed a portfolio of questionnaires, which included questionnaire items tapping teachers' demographics including teachers' gender, race, educational attainment, and total years of teaching experience, their sense of self-efficacy, and their perceptions of school community (teacher collaboration and influence at school). In the fall and spring of the academic year, a systematic observation was conducted in each classroom to assess the quality of teacher-child interactions, including the level of children's engagement (Guo et al., p. 963).

Guo et al. (2011) used a 20-item version of the Teacher Self-Efficacy Scale (TSES; Bandura, 1997) to examine pre-school teachers' sense of efficacy. Their analysis showed a significant interaction effect between teacher collaboration ($r = 39$, $p < .05$) and teacher decision-making influence ($r = .34$, $p < .05$) in the prediction of teacher self-efficacy (Guo et al., 2011).

Further, regressing the children's engagement x teacher collaboration interaction on teacher self-efficacy after controlling for the effects of children's engagement and teacher variables, demonstrated that the children's engagement x teacher collaboration interaction was a significant predictor and uniquely explained 9% of the variance in teacher self-efficacy ($F\Delta$ (5,29) = 2.873, p =.04). They found that "a higher level of children's engagement was associated with a higher level of teacher self-efficacy when teachers worked in preschools with high levels of staff collaboration" (p. 961). Surprisingly, they found no relationship between teachers' years of experience and teacher self-efficacy. In a similar study (Guo et al., 2010) researchers used the same TSES (Bandura, 1997) and found that teachers' years of experience was negatively related to teacher self-efficacy (r = -.293, $p < .05$) with more seasoned teachers reporting lower levels of efficacy. These contradictory findings point to the need to understand more fully teacher self-efficacy across career stages (Guo et al., 2011). Further, this study utilized a teacher self-efficacy questionnaire to determine teachers' sense of efficacy. The authors suggest that follow-up interviews with teachers might have uncovered more subtle associations between other teacher, classroom, or program variables contributing to teachers' self-efficacy (Guo et al., 2011).

While studying the quality of language and literacy instruction in preschool classrooms serving at risk children, Laura Justice and her colleagues (Justice et al., 2008) found that teachers with a higher sense of self-efficacy received higher ratings for the quality of their literacy instruction (r = 0.20, $p < 0.05$) as measured on the Early Language and Literacy Classroom Observation (ELLCO, Smith & Dickinson, 2002). The ELLCO measures the effectiveness of literacy instruction in early childhood classrooms by assessing both the physical classroom environment (availability of language and literacy materials etc.) and teacher-child interactions that facilitate language learning and literacy. Justice et al. (2008) also found that the quality of literacy instruction was related to teachers' adherence to adult-centered ideas (r = 0.20, $p < 0.05$). Although this would seem contradictory to the child-centered, developmentally appropriate practice typical of early childhood settings, when delivering language and literacy instruction, a

more teacher-directed approach can also be appropriate and effective. Justice et al. offered a potential link between teachers' beliefs and actual classroom practice.

> Given that the rating scale used to characterize high quality literacy instruction prioritized instruction that was systematic and explicit, it makes sense that teachers who held more adult-centered beliefs would receive higher scores than teachers who held more child-centered beliefs. Teachers adhering to a more child-centered philosophy may be reluctant to deliver instruction with a specified scope and sequence and that seems overly didactic, as high quality literacy instruction may appear (Justice et al., 2008, p. 64).

Guo, Kaderavek, Piasta, Justice, and McGinty (2011) studied teachers' ability to offer high quality language and literacy instruction across 67 classrooms including Head Start and public and private preschools. The study involved a survey of teachers using the TSES (Bandura, 1997) as well as a classroom observation in each classroom, using the Classroom Assessment and Scoring System (Pianta et al., 2008) to assess classroom quality. In the fall and spring of the year, trained research assistants also assessed children's language and literacy skills using The Peabody Picture Vocabulary Test-III (Dunn & Dunn, 1997), the Preschool Word and Print Awareness (Justice & Ezell, 2001), and the Phonological Awareness and Literacy Screening-PreK (Invernizzi, et al., 2003). Guo, Kaderavek et al. found that "higher levels of teachers' sense of community were associated with greater gains in children's vocabulary and print concept knowledge when children were in classrooms with higher quality language and literacy instruction" (2011, p. 206.). They suggest that teachers' sense of community and collaboration are important contributors to preschool teachers' sense of self-efficacy.

A recent study in Arizona on the effects of a three year professional development project on the self-efficacy of 256 early childhood educators focused on processes that promote the growth of self-efficacy in early educators (Ciyer, Nagasawa, Swadener & Patet, 2010). In this study early childhood educators, including Head Start teachers, were provided professional development supports including scholarship and stipends to complete associate degree

coursework, access to learning communities designed around math and literacy, mentoring opportunities, and participation in summer institutes. The purpose of the study was to measure the ways in which these supports affected participants' self-efficacy. These researchers found that the supports resulted in "an increase in participants' self-efficacy, including expression of confidence in their own math and reading abilities (Ciyer et al., 2010). They also identified self-efficacy as a key process variable in the attainment of a two-year degree (Ciyer et al). Most importantly, Ciyer et al. found that "Participants' increased self-efficacy contributed to their motivation to learn, desire to become better teachers, and openness to experimenting with new classroom practices" (2010, p.140).

Need for the Study

Understanding early childhood teacher efficacy, including the ways in which educational leaders can support self-efficacy, is an important contribution to the field of early childhood education.

The Need in Practice

As the need to hold teachers and programs accountable to a certain standard of quality grows, so does the need to understand how to best support teachers in meeting that standard. Research on self-efficacy has demonstrated that it is an important construct related to teacher's performance and to children's successful learning. Understanding how to best support early childhood teachers' self-efficacy can offer important information about the nature of self-efficacy and the processes and policies that act to nurture and sustain that efficacy.

The current prevalence of quantitative studies that demonstrate associations between self-efficacy and children's achievements illustrate why it is important for early childhood teachers have a high sense of self-efficacy, but lack information about how to nurture such an attribute. A qualitative study that explores how elements in the teaching environment work to develop and sustain early childhood teacher self-efficacy can offer practical information for individuals and programs who want to nurture such characteristics in early childhood teachers.

Gaps in the Literature

Although the literature on K–12 and Head Start teacher self-efficacy offer significant findings to inform the way in which teacher self-efficacy operates in a school setting, several gaps remain in the study of this important teacher characteristic. In their research related to defining and measuring teacher efficacy, Tschannen-Moran, Woolfolk Hoy and Hoy (1998) noted that, "The research suggests that teachers' sense of efficacy plays a powerful role in schooling. Given the importance of a strong sense of efficacy for optimal motivation in teaching, we would do well to examine how efficacy is developed, when it is most malleable, and what factors may lead to its improvement" (p. 234). Further, in a study conducted on the development of efficacy in the earliest stages of a teacher's career, Knoblauch and Woolfolk Hoy (2008) noted that "more research is needed to better understand the connections among contextual factors, cooperating teachers, and student teachers' sense of self-efficacy" (p. 177). Finally, they acknowledged that, "little is known regarding the influence of setting on the developing efficacy of student teachers" (p.168).

In attempting to fill this gap in the literature on teacher self-efficacy across the preschool and public school years, the construct has been examined almost exclusively from a quantitative perspective, with only recent efforts emerging that include diverse methodologies to study teacher self-efficacy (Klassen, Tze, Betts & Gorgen, 2010). Where qualitative analysis has been used to study this phenomenon, it has been utilized to identify the impact of teacher self-efficacy on children's learning or teacher performance and has not focused on the sources of teacher self-efficacy or how teacher self-efficacy is developed and promoted within varied contexts and settings (Guo et al., 2011; Klassen et al., 2010; Knoblauch & Woolfolk Hoy, 2008).

A specific focus on teacher self-efficacy in early childhood education was notably absent in my review of the literature on this important construct. Those studies of early childhood teacher self-efficacy that do exist were designed to study predictors of teacher self-efficacy versus further defining sources of efficacy or contextual factors that influence the development of self-

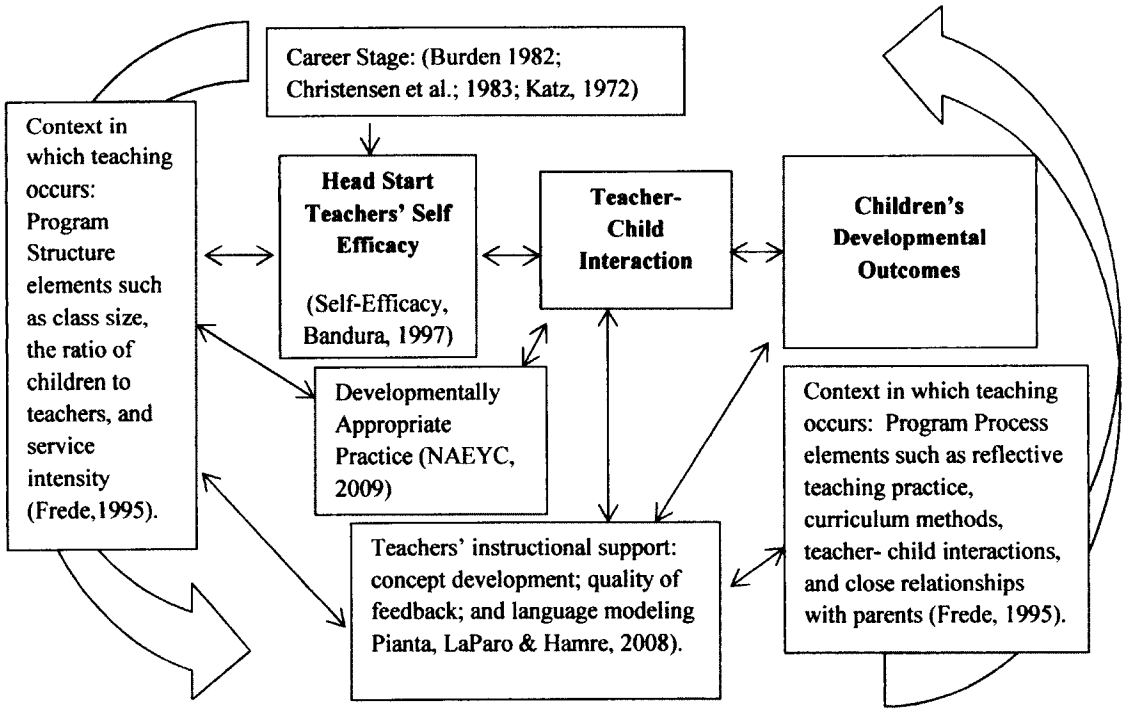
efficacy. Further, qualitative studies of Head Start teacher self-efficacy have been conducted using mixed-method approaches, with qualitative inquiry used primarily as a follow-up analysis to tease out the ways in which self-efficacy was associated with teacher performance or attainment of degrees (Ciyer et al., 2010). In the Guo, Justice, Sawyer and Tompkins study (2011) the method used to assess teacher self-efficacy and sense of community was a self- administered questionnaire. They noted that "a more accurate picture of the subtle relations among teacher self-efficacy and other teacher or classroom variables might have been obtained by focus group interviews" (p.966). They recommend that future studies include interviews with teachers to gather information concerning teacher's self-efficacy beliefs as they vary from one classroom to another to discern which features make a difference (Guo et al.). A related study conducted by Guo was the only research identified in this review of the literature that studied organizational or group supports and their influence on early childhood teacher self-efficacy (Guo, Kaderavek et al., 2011). Finally, when studies of teacher self-efficacy related to developmental outcomes of children included measures of teachers' instructional support, the focus of such studies was on the ability of teacher self-efficacy to predict higher instructional support scores. These studies did not examine the factors of teacher self-efficacy that aided or hindered teachers' actual classroom practice toward the higher instructional support scores.

Teachers' self-efficacy, their belief in their ability to provide the types of instructional supports that are most effective in facilitating children's developmental outcomes is an important construct to consider in devising methods for advancing the instructional support skills of Head Start teachers. Such descriptive research fills an important research gap by providing a qualitative examination of early childhood teacher's self-efficacy in the provision of instructional support and the ways in which process and structural elements of the preschool environment affect their self-efficacy. The present study provides information on the sources of early childhood teacher self-efficacy and the influence of the context in which teaching occurs on early childhood teachers' self-efficacy.

Conceptual Framework

The following conceptual framework guided the study of Head Start teacher self-efficacy in the provision of instructional support to preschool children, including the ways in which structural and process elements of the environment influence their self-efficacy (Figure 1). The conceptual framework is a visual representation of the relationship of aspects of the literature related to teacher efficacy as applied to Head Start teacher self-efficacy. It also displays the concept that structural and process elements of the teaching environment affect teacher efficacy in the instructional support of children. Finally, it represents the connection between teachers' instructional support of children and children's developmental outcomes.

Figure 2.1. Head Start Teacher Self-Efficacy and Instructional Support of Children



This framework is based upon Bandura's theory of self-efficacy that, the reader will recall, includes a transactional view of self and society in which personal and environmental characteristics influence one another (1997). In Bandura's theory of self-efficacy, it is an

interaction between cognitive and social factors that shape individual behavior. For the Head Start preschool teacher this means that her belief in her ability to provide instructional support to children in ways that benefit their learning, and that doing so will ultimately result in positive outcomes, interacts with environmental characteristics (structural and process) of the preschool setting in which she teaches to influence her delivery of instructional support.

The conceptual framework presented in Figure 2.1 is an application of "triadic reciprocal causation" defined in the literature by Bandura. In Bandura's integrated model of human action or agency, "social influences operate through self-processes that provide the actions" (p. 6, 1997). Thus, a teacher's self-efficacy resides within the Head Start teacher as s/he enters into relationship with children in the classroom. This within-person variable influences the Head Start teacher and is influenced by the context in which she teaches.

The context includes such things as structural and process quality characteristics of the early childhood setting in which the teacher works. Career stage and self-efficacy also affect the adoption and implementation of innovative instructional support (Berman & McLaughin 1978; Ghaith & Yaghi, 1997; Nie et al., 2013), as does a teacher's belief in and understanding of developmentally appropriate practices (NAEYC, 2009).

Together, the self-efficacy beliefs of the Head Start teacher and the environment in which the she or he works influence the quality of a teacher's interactions (human agency or behavior) with children. These interactions include instructional support strategies. In turn, these interactions influence teacher's self-efficacy as the teacher experiences success or challenges in those interactions. Finally, in this model, the quality of the Head Start teacher's interactions, specifically, her instructional support strategies with children, influences the developmental outcomes of children.

Chapter Summary

This chapter has provided a review of the literature relevant to this study, including research on measuring the quality of early childhood programs and teachers' use of instructional

supports. The chapter also outlined literature relevant to teacher self-efficacy, which indicates the connection between self-efficacy and teacher's effective instructional support. The chapter ended by presenting a conceptual framework to illustrate the way in which theoretical constructs contained in the research literature framed the study. Chapter Three provides the design of the study of Head Start teacher self-efficacy.

CHAPTER THREE

METHODOLOGY

This chapter describes the design of the study. The first section presents the research goal and questions as well as operational definitions of key terms included in the research questions. The second section outlines my philosophical and methodological approach to the research as well as issues related to the population and sample in this study. The third section presents information on data collection and analysis including the methods and instruments that were used to gather data to inform the study. Validity, limitations, and trustworthiness are also addressed within this section as well as the means by which researcher bias was addressed.

Research Goal and Questions

The goal of this study was to explore highly efficacious early career Head Start teachers' provision of instructional support and the ways in which process and structural elements of the preschool environment influence their self-efficacy. Two overarching research questions guided the study:

RQ 1. How and to what extent do highly efficacious early career stage Head Start teachers provide instructional support as defined by the CLASS (Pianta et al., 2008)?

RQ 2. How are highly efficacious, early career stage, Head Start teachers' beliefs in their ability to provide instructional supports influenced by the structural and process elements of the environment in which they teach?

Operational Definitions of Key Terms in the Research Questions

This section of Chapter Three includes the definitions used in the development of the study. The following key terms and definitions were used in the study:

Highly Efficacious—Refers to a teacher's belief in her capabilities to organize and execute the courses of action required to produce given attainments (Bandura, 1997, p.3). In this study teachers were considered highly efficacious if their total score on Bandura's Teacher Self-Efficacy Scale (1997) was higher than 5.91. This score is consistent with the mean efficacy score

of teachers who had completed one year of teaching reported in a study by Woolfolk Hoy (2000). For the purposes of this study, teachers who scored higher than the 5.91 average identified by Woolfolk Hoy (2000) were considered to be highly efficacious.

Early Career Stage—Teachers who are early in their career stage have worked in an early childhood setting for three-six years (Burden 1982; Christensen et al., 1983; Katz, 1972).

Head Start—Head Start is a comprehensive early childhood program designed to promote the school readiness of low-income children by providing preschool education, health, and nutritional services.

Head Start Teacher—The lead teacher in a Head Start classroom is titled "Head Start Teacher." S/he is responsible for the assessment of children's development and the use of such assessment data in the development of educational curriculum.

Instructional Support—Instructional support includes these dimensions: a) *concept development*, or the way in which teachers use discussion and activities to promote children's higher order thinking versus teachers' use of rote instruction; b) *quality of feedback*, or how teachers extend children's learning by responding to children's comments, ideas and work throughout an activity; and c) *language modeling*, which includes the extent to which teachers facilitate and encourage children's use of language (Pianta, LaParo & Hamre, 2008).

CLASS—Classroom Assessment and Scoring System is an observational instrument developed to assess classroom quality in preschool classrooms (Pianta, LaParo, & Hamre, 2008). The CLASS measures classroom quality in three dimensions of teacher-child interaction including emotional supports, classroom organization strategies, and instructional supports that are employed by teachers to support children's learning (Pianta, et al.).

Structural Elements—Program "structure" includes fixed characteristics such as class size, the ratio of children to teachers, and service intensity [length and number of days, etc.] (Frede,1995).

Process Elements—Program "processes," include things that help teachers respond to individual children (reflective teaching practice, curriculum methods, teacher-child interactions, and close relationships with parents) (Frede, 1995).

These research questions framed the exploration of Head Start teacher self-efficacy in the provision of instructional support and the ways in which process and structural elements of the preschool environment influence the teachers' self-efficacy. Research question one refers to the extent to which highly efficacious Head Start teachers are using instructional support strategies in their teaching practice. Question two refers to the ways in which the teaching context influences Head Start teachers' self-efficacy. Since we know from the literature that self-efficacy continues to develop and is influenced by life events and developmental changes (Bandura 1997), it is important to consider both the structural and process variables of the teaching context and how these promote or hinder self-efficacy for the Head Start teachers in this study.

Researcher's Approach

My approach to the study of highly efficacious Head Start teachers is informed by six years of experience on an applied research grant investigating levels of quality in Maine's early childhood settings. I was the principal investigator on a multiple case study investigating the way in which child care providers were using formative assessment to inform differentiated instruction and curriculum planning in their classrooms. As part of that process, I interviewed eleven teachers across varied Maine child care settings from Aroostook to York counties. This qualitative experience allowed me to explore the why and how questions that quantitative associations could not answer. Quantitative analysis told us which programs were implementing these practices, but it could not tell us how teachers collected and processed formative assessments, what tools they used, how these informed their curriculum planning, and when they found the time and resource to manage the assessment cycle. Retelling the stories of these women and their work was a powerful experience. The privilege of being invited in to child care homes, preschool classrooms, and home visiting programs was a humbling and impactful learning experience I brought with me

to this current research agenda. At heart, I am a story-teller so I wanted to use an approach that would provide rich information to tell the story of early childhood teachers and their efforts to best serve the educational and social needs of the children in their classrooms.

Learning about the ways in which educational practices and innovations defined at a policy level influence teaching practice at the classroom level remains an interest for me and propelled me to pursue this study. My research perspective is grounded in an interpretive philosophy in which my increased understanding results from a shared experience where multiple perspectives are considered and brought to the process of meaning-making. Thus using a qualitative approach to gather descriptive data, through interview, observation, reflective journaling and member-checking allowed me to build multiple cases in which the central phenomenon of teacher self-efficacy could be explored, related, and ultimately better understood by those who wish to promote Head Start teachers' instructional support strategies.

Design

To explore the research questions framing this study, I conducted a qualitative multiple case study to explore the phenomenon of Head Start teacher self-efficacy. This study employed a conceptual framework rooted in Bandura's integrated model of human action or agency (1997) where a teacher's personal and general teaching efficacy (self-processes) are influenced by the context in which the teacher works. It was, therefore, a key assumption of this study that understanding Head Start teacher self-efficacy could not be accomplished without consideration of the context in which teaching occurs. Thus, the use of a multiple case study approach provided the opportunity to explore Head Start teacher self-efficacy across varied classroom and program contexts. According to Yin, the case study attempts to examine a contemporary phenomenon in its real-life context, especially when the boundaries between phenomenon and context are not clearly evident (1981). Because this study explored teacher efficacy within and across teaching contexts, Yin's (1981) identification of the case study approach as one that sheds light on a

phenomenon that is intricately linked to context implies that the choice of a multiple case study approach was appropriate to explore Head Start teacher efficacy.

Stake (2005) suggests that a case or cases can be examined to provide insight into an issue. He contends that the case is of secondary interest; it plays a supportive role and facilitates our understanding of something (Stake, 2005). In this study the development of multiple cases in which the teacher and her self-efficacy was the primary research interest (the case), the inclusion of context variables added to each case and supported the richness of data collected about teacher self-efficacy. Consistent with Stake's (2005) description of the use of a case study, I worked to build rich descriptions of each of the three cases in this study to explore the central phenomenon of Head Start teacher efficacy.

Population

I live in Maine, a relatively rural state with a small population. Nevertheless, Maine's Head Start delivery system shares many of the characteristics of Head Start programs across the nation. In 2012, 48 percent of children enrolled in Head Start programs nationwide were four years of age; 34 percent were three years of age (US DHHS). Maine Head Start programs serve children of a similar age composition, with fewer Head Start children enrolling at the younger age of three years. Forty-seven percent of children enrolled in Maine Head Start programs are four year olds and 30% are three year olds (Maine Children's Alliance, 2012).

According to the Office of Head Start, in 2012 "most Head Start preschool services were provided in center-based settings that, based on local design, vary in the number of days per week and hours per day classes are in session" (US DHHS, 2012). The two most common delivery designs include a) center-based care five days a week for six or more hours a day and b) center-based care four days a week, for less than 6 hours a day (US DHHS, 2012, p.5). Maine Head Start program options mirror the national average with center-based full day (20%) and half day (60%) programs (Maine Children's Alliance) being the most common program delivery methods.

In addition sixty-two percent of all Head Start center-based preschool teachers in 2012 had a baccalaureate degree or higher in early childhood education, or in a related field with experience (USDHHS 2012). In Maine, forty-five percent of Head Start teachers have bachelor's degrees (Maine Children's Alliance). While this number is slightly lower than the national average, an additional 12 percent of Maine Head Start teachers are currently enrolled in a bachelor's degree program (Maine Children's Alliance) which brings the percentage of teachers with post-secondary education closer to the national average.

It is also important to consider the quality of a state's Head Start programs to ensure that programs recruited are not of significantly higher or lower quality than the national profile described in the research literature. In a study of the quality of child care in Maine conducted by Marshall et al. (2004), Maine's programs where similar to Head Start programs nationwide. Maine programs that serve a high percentage of low-income children scored lower on measures of quality compared to Maine programs serving a more affluent demographic (Marshall et al., 2004).

> We found that [Maine] centers that serve predominantly low- or low/moderate income families were rated as poorer quality than centers that serve predominantly moderate/high income families...The centers serving low income or low/moderate income families scored lower on the Language-Reasoning, Activities, and Interactions subscales [of the Environmental Rating Scale(Harms et al., 2004)]. The activities and staff behaviors that are necessary to meet Good benchmarks on these scales are precisely those behaviors that have been shown to be linked to better child outcomes (Marshall et al., 2004).

Further, in a recent study undertaken to validate a child care quality rating system in Maine, Lahti et al., (2011) used the Environmental Rating Scales (Harms, et al., 2004) to measure quality differences among early childhood program settings including Head Start, private child care centers, and private family child care homes. Lahti et al. (2011) found that Head Start programs scores ranged from 3.88 to 4.77. Harms et al. (2004) indicate that a score of five or higher

indicates programs of good quality. Maine's Head Start programs are struggling to reach this benchmark.

Maine's Head Start programs offer characteristics that are on par with national Head Start programs including the most common program delivery options, the ages of the children served, the educational qualifications of preschool teachers, and the level of quality found in Head Start programming. Because of this, it was appropriate to view Maine as a state from which typical Head Start teachers were recruited for this study.

Sample

Consistent with the design of a multiple case site study, I formed the study sample by selecting three teachers (cases) from geographically diverse Maine Head Start sites that represent the myriad of Head Start agency structures including, stand-alone programs, programs in collaboration with public schools, or programs that offer a combination of Head Start, Pre-K and child care services. The primary considerations for inclusion of the case in the study sample were: a) teachers who are highly efficacious (as defined by Bandura's Teacher Efficacy Scale; b) teachers in their early career stage (three-six years; c) teachers with a minimum of a bachelor's degree in early childhood education; and, d) teachers who have proven to be amenable to innovative practices. This section of the design presents the methods used to ensure recruitment and case selection for the sample.

Recruitment and Case Selection. To achieve a sample of highly efficacious, early career Head Start teachers who use innovative instructional practices I began by attending a monthly meeting of Maine's Head Start directors in February 2014. During this meeting I outlined the goals of the study, the time expectations for participation in the study, and the characteristics of the teachers I wanted to study. I followed up with this group of directors by sending an electronic copy of a brief introductory letter (Appendix A). Because of my collegial relationship with the directors at each of the eleven Maine agencies, I used them as gatekeepers, asking them to distribute the study description to teachers and to help me recruit from their programs.

As part of this recruitment, I asked directors to identify teachers who were most apt to participate in an interview process, who were early implementers of innovative practice in the past (based upon their most recent scores on the CLASS), and who demonstrated characteristics of highly efficacious teachers. I described highly efficacious teachers by summarizing the key constructs in Bandura's Teacher Efficacy Scale (1997). I summarized these constructs by asking the directors to recommend teachers they believed to be confident in their ability to teach in ways that are beneficial for children, despite typical daily problems or challenges out of the teacher's control like family and community conditions that place a child at risk for learning gaps. In addition, I asked them to suggest teachers who were in their early career stage because research has indicated that teachers in this career stage may be most responsive to supports in the workplace (Guo et al., 2010; Hoy & Woolfolk, 1990; Tschannen-Moran et al., 1998). Finally, I asked them to include teachers who had achieved a bachelor's degree in early childhood education to minimize variability due to educational qualifications and to be consistent with the national Head Start requirement that lead teachers have a minimum of a bachelor's degree in early childhood education.

One of the goals of this study was to examine highly efficacious teachers' provision of instructional support. Because some of the strategies related to instruction represent a new and more explicit instructional approach than what has traditionally been offered in early childhood programs, it was important to recruit teachers who were most open to the adoption and implementation of instructional support practices. To determine this level of implementation I used Head Start teacher's scores on the CLASS tool as an indicator of their willingness and ability to adopt instructional teaching practices. For the purposes of this study, I used the CLASS scores identified by the Office of Head Start (Emotional Support: 5; Classroom Organization: 5; and, Instructional Support: 3) as thresholds of quality. I selected teachers who had demonstrated the use of instructional support strategies by achieving at least the minimum score in the three areas of the CLASS in their most recent CLASS observation report.

Although the teacher herself was the case in this study, I selected three teachers from unique work sites to add to the diversity of the study of teaching context. I wanted to include programs with geographic diversity as well as diversity in the children enrolled. To determine site diversity I used a phone interview (Appendix B) to gather details about program characteristics like location (geographic diversity), children served (demographic diversity) and program model and delivery options.

Ultimately I chose cases based upon the following criteria which are guided by Stake's (2005) discussion of case selection criteria:

- Is the case (teacher) relevant to the study of Head Start teacher self-efficacy?
- Does the case work in a teaching context in which instructional support is delivered (curriculum used and instructional planning processes employed) that adds to the overall diversity of the cases studied?
- Does the case work in a teaching context (structural and process elements) that provides an opportunity to learn about teacher self-efficacy in a unique way?

Data Collection

Data collection activities included an initial phone interview with teachers, subsequent interviews with teachers and educational leaders, and onsite observations.

Initial Contact. I contacted each of the 11 Maine Head Start directors by attending their monthly meeting and asked these directors to identify teachers (up to four at each site) —and the educational leaders who work with these teachers— whom they felt were most apt to participate in an interview process, who have been early implementers of innovative practice in the past, and who demonstrated characteristics of highly efficacious teachers as defined by Bandura's Teacher Efficacy Scale (1997). Directors sent me the names and contact information of teachers they thought would fit the study criteria and I distributed the initial recruitment letter to these teachers and the educational leaders who work with them.

Once teachers indicated their interest in participating in the study, I conducted an initial phone call to review program characteristics (Appendix B) and asked them to complete an adapted version of Bandura's Teacher Self-Efficacy Scale (Bandura, 1997), included as Appendix E, to confirm that teachers selected were highly efficacious. This teacher self-efficacy scale has been used consistently in the study of early childhood teacher efficacy (Guo et al., 2011; Justice et al. 2008) so it was an appropriate tool to use in teacher selection.

Once participants were selected, consent (Appendix C or D) was obtained to conduct interviews. Interviews followed the protocols included in Appendices F–I.

Teacher Interviews. The next stage of data collection activity involved a series of interviews with Head Start teachers, using an iterative process based on Seidman's (2006) protocol. Following Seidman's (2006) guidelines, I conducted three interviews each with three Head Start teachers in Maine. Utilizing the Seidman (2006) interview guidelines allowed me to develop a relationship with these three teachers, tailor questions in the second and third interview sessions to responses given in earlier conversations, and delve more deeply into the ideas they presented in the initial interview.

Seidman's (2006) three-stage structure for interviewing includes an initial interview focused on the participant's life history related to the phenomena being studied. The first interview (Appendix F) provided an opportunity to establish a relationship with the participant and to explore how she came to be a Head Start teacher. It also provided a chance to continue the conversation we began in the initial recruitment phone call about her beliefs about how and under what circumstances children learn and how she supports children's learning through the provision of instructional support. A discussion about what characteristics of the teaching context promote or hinder her ability to support children's learning was also included.

In the second interview, Seidman (2006) suggests using questions that elicit details regarding the participant's experience with the problem being studied (Appendix G). The second

interview provided an opportunity to follow up with the teacher on their responses during interview one, and to explore more deeply the evolution of her beliefs in her ability to support children's learning. Questions focused on her experiences in effectively supporting children's learning, as well as times when she struggled to do so, and how those experiences affected her teaching efficacy. It also explored, more deeply, contextual variables that influence her teaching efficacy.

Finally, according to Seidman (2006) the third interview (Appendix H) offers the teacher an opportunity to reflect upon the meaning of her experiences. Accordingly, the third interview provided an opportunity for teachers to do some reflection on their teaching over the course of their career, and any ebbs and flows to teaching efficacy that occurred during her teaching career. It also provided a time to reflect upon and confirm responses to earlier questions. The questions were framed to purposely provoke reflection by the teacher on her teaching efficacy across the varied professional contexts in which she has worked.

Educational Leader Interviews. Additional data collection activities include an interview with the educational leader (Appendix I) in the setting who is responsible for promoting teachers' instructional support of children. In two of these sites the educational leaders interviewed were not the teacher's direct supervisor. Their role was to observe teacher classroom teaching strategies and to provide feedback directly to the teacher and her teaching team but not to directly supervise the teacher. In one site, the educational leader had this educational role but also provided direct supervision to the teacher. The interviews with the education leaders provided insight into the ways in which teacher efficacy is supported in a Head Start organization. These interviews were timed so that they took place after the first interview of the teacher, but before the final teacher interview to allow for an inductive process in which some initial analysis of the teacher interview could inform the interview with the educational leader. This inductive process did not change the semi-structured interview questions (Appendix H), but helped to guide the analysis and focus of the interview so that I could listen carefully for answers that seem to

support or contradict other data collected. This initial triangulation of data also helped to inform member-checking activities.

Onsite Observation. Finally, data collection also included an onsite observation of the Head Start teacher in her classroom. This observation (Appendix J) was conducted using the CLASS (Pianta et al., 2008) observation tool. The tool was used as a way to inform the observation and to confirm the use of innovative teaching practices as defined by the recent focus of Head Start on high quality teacher-child interactions. The observation provided descriptive information about the instructional supports delivered in the classroom as well as information about the environment in which teachers work. As a student researcher I have received training and passed reliability testing on this observation tool (Appendix L), which helped to ensure that the observation provided information on teacher-child interaction that was not biased, nor subjective, but rather based upon a valid and reliable tool (Pianta et al., 2008). The information collected in this observation also informed classroom characteristics and teacher processes that support children's learning. Because the tool was created to provide observation focused primarily on the lead teacher in a classroom, has been used in numerous Head Start and Public Pre-K studies, and is currently being used in Maine Head Start classrooms for professional development, it was an appropriate tool to guide the classroom observation.

A data collection matrix for the study is included in Table 3.1. This matrix includes the theoretical constructs used to develop the research questions that guided the study; the research questions themselves, and data collection activities. The data collection activities are sorted by research question and corresponding theoretical frameworks to show how data was gathered to inform the research questions, and the way in which that data were organized according to theoretical frameworks that guided the study.

Table 3.1. Data Collection Matrix

Theoretical constructs	Proposed study research questions	Data collection to answer this question
Teacher self- efficacy (Bandura, 1997; Hoy & Woolfolk, 1993). Instructional support and children's learning (Pianta, LaParo & Hamre, 2008).	RQ 1. How and to what extent do highly efficacious early career teachers employ instructional support as defined by the CLASS (Pianta et al., 2008)	Teacher Interview Questions:1.1, 1.2, 1.3, 1.6, 1.7, 1.8, 1.9, 2.1, 2.2, 2.3, 2.5, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7 Classroom Observation
Structural and process context variables (Frede,1995) Contextual Variables associated with teacher efficacy (Ross, 1994; Woolfolk Hoy 2007; G Guo, Y., Kaderavek, J., Piasta, S., Justice, L., McGinty, A., 2011)	RQ 2. How and in what ways are highly efficacious early career Head Start teachers' beliefs in their ability to provide instructional supports influenced by the structural and process elements of the environment in which they teach?	Teacher Interview Questions:1.4, 1.5, 1.8, 1.10, 1.11, 1.12, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.11, 3.1, 3.5, 3.7 Educational Leader Interview Questions: 1.1 – 1.16 Classroom Observation

Data Management and Analysis. After completing sample selection, initial teacher interviews were scheduled early in the process to allow for two follow-up interviews with each of the participants and to provide time for an inductive process. The interview with the educational leaders, as well as the classroom observation, were scheduled after the first interview of the teacher, but before the final teacher interview to allow for some initial analysis of the teacher interview to inform the interview with the educational leader and the classroom observation. Interview questions, with potential probes were used during the semi-structured interview process. The timeline for data collection and analysis procedures for the study are included in Table 3.2 Overlapping timelines indicate the use of an inductive process where data collections activities were guided by ongoing coding and analysis throughout the semi-structured interview process.

Table 3.2. Data Collection Activities

Activity	January – March 2014	March – May 2014	May – July 2014	July – October 2014
Initial Contact Interview	x			
Teacher Interview #1		x		
Teacher Interview #2			x	
Educational Leader Interview			x	
Observation			x	
Teacher Interview #3				x
Coding		x	x	
Development of Themes		x	x	x
Member Checking			x	x
Organization of Themes by Research Question				x
Final Member Checking				x

All interviews were audio-recorded and a field note was written within 24 hours of the interview to document the visit and to highlight any initial reactions to the interview. First interviews with teachers were conducted during the first three months of the study; all first interviews were conducted before proceeding to second interview to consider emerging themes across the first interviews and to inform second interviews. In the same three-month period of the second set of teacher interviews, an interview with the educational leader of the program was conducted as well as a classroom observation using the CLASS observation tool. The observation was conducted in accordance with the protocol outlined in the CLASS (Pianta et al.) manual (Appendix J).

After the second round of interviews, emerging themes were shared with each participant as a form of member checking and to inform the final interviews. The third and final set of teacher interviews occurred during the 6–9 month timeline of the study. After the third round of

interviews, coding of transcripts, and observation was completed and findings were organized by theme and research question. This analysis took place before proceeding to final interview with each teacher to probe issues more deeply, to confirm emerging themes, and to explore any discrepant cases.

During the data collection and analysis process, I maintained a journal to record all field notes, to identify analytic decision-making and inform coding processes, and to document emerging patterns and themes. Data coding was conducted in NVivo. Initial coding was conducted based upon the procedure outlined by Creswell (2012): a) read the transcripts to get a general sense of the ideas presented; b) code the transcript by segmenting text and using participants' phrases, augmenting with labels from the literature as necessary to describe the content; c) use this list to code the transcript more carefully, adding codes where important data are not captured with original code list; d) code any additional individual interviews using the same code list; e) filter codes into organizational, substantive, and theoretical categories (Maxwell, 2005).

Analytic Strategies

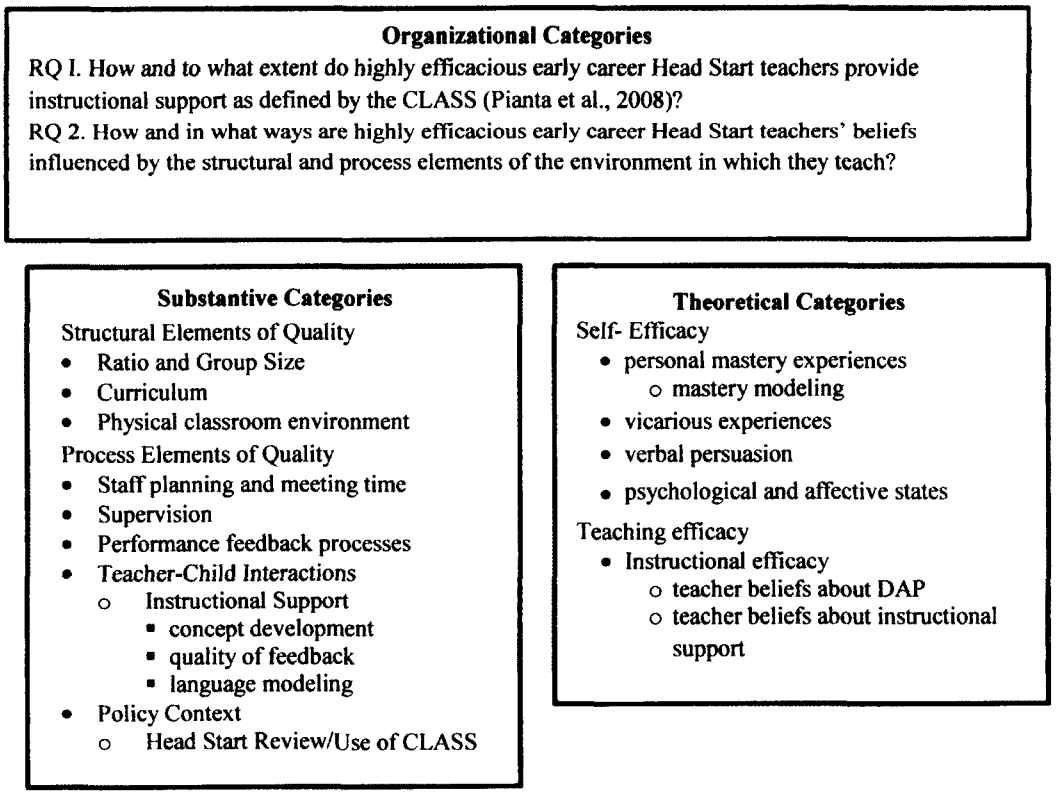
The first step toward developing themes from these data was to use an analytic strategy that organized data into the following categories.

Organizational Categories. Maxwell (2008) describes organizational categories as, "generally broad subjects or issues that you establish prior to your interviews or observations, or that could usually have been anticipated" (p. 237). Organizational categories act as "bins" (Maxwell) for holding data in anticipation of future analysis. Absent connection with other data from the substantive and theoretical categories these initial data segments "don't help much with the actual work of making sense of what's going on" (p.237). For the purposes of this study, I used the two overarching research questions that frame the study to code data into organizational categories.

Substantive Categories. Substantive categories are described by Maxwell (2008) as "primarily descriptive, in a broad sense that include description of participants' concepts and beliefs; they stay close to the data categorized and don't inherently imply a more abstract theory" (pp. 237-238).

Theoretical Categories. According to Maxwell, theoretical categories are used to organize date into "a more general or abstract framework. These categories may be derived either from prior theory or from an inductively developed theory..." (p. 238). In this study, substantive and theoretical categories were developed from the theoretical foundations of the study's conceptual framework. Organizational and theoretical categories for the study are included in Figure 3.1.

Figure 3.1. Data Sorting Categories



Finally, Maxwell (2008) describes the need to analyze relationships between the categories to heighten understanding of the phenomenon of study. The purpose of this step of analysis is to "connect statements and events within a particular context into a coherent whole"

(p. 238). In this step of analysis, data were reconnected in an attempt to provide rich, descriptive information about the phenomenon related to the two research questions that frame the study. In this step, data were coded and sorted into categories and re-analyzed for connections among and between coded data. These connections, or points of commonality and agreement among these data, were used to develop emerging themes that describe highly efficacious early career Head Start teachers' instructional support strategies and the ways in which structural and process elements of the teaching environment influence their self-efficacy. These connections were developed and then tested out with participants as interviews progressed to address discrepancies and to ensure that the connections I found among data were valid in that they represented the experiences of these three teachers.

Ethical Matters

To ensure that data were collected in an ethical manner, all participants were given an informed consent form (Appendix C or D) outlining the overall purpose of the study, the types of information to be collected, sample interview questions, and a general outline of the observation protocol. Head Start agencies inform parents of observation protocol upon enrollment. Parents sign consent forms to allow observations such as those conducted as a part of this study to occur. At all times, I followed the protocols that were set forth by the Head Start program in which I was observing to ensure that I complied with and respected the parameters of parental consent on file with the Head Start agency.

Once data were collected and transcribed into written form, all data collected were kept confidential and participants' anonymity was protected by using aliases and by storing all transcribed interviews on a secure, password protected thumb drive. As part of this informed consent procedure, participants were informed that they could remove themselves from the study at any time by communicating with me directly to avoid any concern that their colleagues or supervisors would be informed of their decision not to participate in the study.

To add additional credibility to the field study, I clearly identified my role as that of researcher only in this work with teachers. It was important for participants to know that I was not conducting this research as a part of my current professional role as a technical assistance provider in the field of early childhood education. I also shared with them that ultimately I hoped that the information collected through this study would inform the types of supports most useful to them in their role as a Head Start teacher.

Trustworthiness. To ensure the trustworthiness of my data collection and analysis, I used several methods to add validity to my study. In collecting the data, I included the use of a reflexive field journal, interviewed three teachers in a three-part series, included an interview with an educational leader, and observed the classroom setting in which the teaching occurred. I also conducted member-checking activities with participants. Using these techniques allowed me to triangulate data during analysis (Creswell, 2012). Using a reflexive journal helped me describe emerging patterns and data, note inconsistencies, and reflect upon my assumptions about teacher efficacy and its development.

Addressing Researcher Bias. Because of my role as a technical assistance professional who works within the field of early childhood education to help States and Territories develop professional development systems for teachers, I have deeply rooted beliefs about the support and development of teachers. This role makes me passionate about the topic of study, but also means that I have pretty firmly entrenched opinions about early childhood programming and the support of teachers. I used a reflexive journal to bracket these biases. Another means of minimizing my own opinions about the topic was to focus the second and third interviews with teachers, as well as the interview with the educational leader and classroom observation, on those issues that were contradictory to my preconceptions about what promotes or hinders teacher self-efficacy in the provision of instructional support. For instance, my own bias at the start of this research was that teachers would talk about their resistance to more teacher-directed instructional support strategies. Thus, when this resistance did not arise in the first round of interviews I asked directly

about it during the second and third interviews to gain perspective and to ensure that I accurately described teachers' belief in the benefits of teacher-guided instructional support. Member-checking after transcription and the development of emerging themes also provided me a chance to check my assumptions and allowed for follow-up where I did not accurately portray the patterns in the participants' responses.

Finally, as I summarized themes from this study, I used the participants' own words to document themes by including direct quotations from the interviews when presenting data. The use of participant voice helped to reduce any potential bias in the presentation of findings. This was important for me because of my role in the field of early childhood professional development. Because my professional experiences with teachers have resulted in the formation of strong beliefs in this area, it was important to minimize my voice in the summary of themes from the data collected. I used the reflexive journal to reflect upon and discuss my own beliefs and biases, but tried to use participant's own words to report summary themes from data collection. Using participant voice, rather than paraphrasing their contributions also added to the trustworthiness of the study (McMillan & Schumacher, 2010).

Chapter Summary

This chapter described the design of the study including the research goal and questions, operational definitions, and a discussion of my philosophical and methodological approach to the research. The chapter also outlined processes for data collection and analysis including the methods and instruments that were used to gather data to inform the study. Validity, limitations, and trustworthiness were also addressed within this chapter. Chapters Four, Five and Six present the data collected as part of this study.

CHAPTER FOUR

DESCRIBING THREE HEAD START TEACHERS' BACKGROUND, QUALIFICATIONS, AND WORK SITE CHARACTERISTICS

This study examined highly efficacious Head Start teachers' provision of instructional support and the ways in which process and structural elements of the preschool environment influence their self-efficacy. Chapters Four, Five and Six address the two research questions that guided the description and analysis of the interviews with three Head Start teachers and the educational leaders who support their teaching: 1) How and to what extent do highly efficacious early career Head Start teachers employ instructional support? and, 2) How and in what ways are highly efficacious early career Head Start teachers' beliefs in their ability to provide instructional supports influenced by the environment in which they teach?

Chapter Four presents descriptive data about the three teachers and the schools in which they work. It provides contextual information about their teaching backgrounds and qualifications, their sense of teaching self-efficacy, as measured by Bandura's Self-efficacy Scale (1997), and the path that led to their current role as a Head Start teacher. This information provides details related to teachers' preparations for and experience with teaching as well as their beliefs in their ability to teach in ways that benefit children. Chapter Four also provides information about the environments in which the three teachers work by introducing similarities and differences in work site characteristics such as group sizes, curricula used, and teacher to child ratios.

The contextual information about the three teachers and the environments in which they work sets the stage for the exploration of two key constructs in the study: a) how and to what extent these three teachers provide instructional support to children; and b) how the environments in which these teachers influence their ability to do so. These two constructs are examined in Chapters Five and Six.

Teachers Background and Qualifications

Teacher characteristics for each case including information about years of teaching and educational background are included in Table 4.1 which shows that these characteristics were similar across the three cases selected, as was planned in the design of the study.

Table 4.1. Background and Qualifications of the Teachers in the Study

	Case 1: Jill	Case 2: Wendy	Case 3: Beth
Teacher's Gender	Female	Female	Female
Years of teaching for Head Start	4	3	5
Years of teaching	4	6	6
Years of teaching in current program	4	3	3
Highest level of educational attainment	Bachelor's in ECE with a graduate certificate from Erikson Institute	Bachelor's Elementary Education	Bachelor's Elementary Education with 081 Teaching Certification

Although the background and qualifications of the three teachers is similar, each one's path to her current teaching role was unique, something that became apparent in my earliest conversations with each of these three teachers.

When I first talked with Jill about being part of a study on highly efficacious teachers she was quiet and unassuming; so much so that I had to turn my tape recorder volume to its highest setting. Jill's soft voice was deceiving at first, and I wondered whether she was going to be a good fit for the study. My doubt was quickly squashed when I stopped listening to the tone of her voice, and started tuning into the content of her responses. It was in these responses to my interview questions where Jill's energy and enthusiasm for teaching was most evident. "I am happy to share whatever I can," she offered with a warm smile, "I feel so lucky to be working here... I am excited to talk about [name of the school] and how they have supported me."

Jill's fondness for the school she works in is perhaps because she began working for the agency when she was 20 years old. From our first meeting it was clear to me that Jill considers

the organization a second home. Walking through the hallways she stops to point out places where children's art aligns the wall, she points out the cozy nooks available for children in the hallway to her classroom, and shows me observation booths that are available for parents and others to watch without disturbing children. She is proud of the space and grins broadly as she points these things out to be. "We are so lucky to have this beautiful space," she offers. Her affinity for the school goes beyond her appreciation for its physical attributes. Jill has an emotional connection to the school as well, "I have grown up here and I can't imagine doing anything else...I started as a substitute, got my associate and then bachelor's degree and worked my way through assistant to lead teacher. And now I am a supervising teacher." Jill is comfortable in her current role but of the three teachers in this study, Jill's path to teaching was the most random. Although she had worked for the Head Start organization for many years, she never saw herself as a teacher until she was called upon to act as an occasional substitute teacher. Jill describes how she came to the teaching position, "I subbed in the classroom a little bit and ...I have kind of been hooked ever since... I just kind of fell in to it and it was where I needed to be." Jill's comfort and familiarity with the organization supported her transition from an administrative support role to a teaching position.

Wendy is a teacher in a Head Start pre-K program located in a public school setting. Wendy was recommended for the study by several people in her organization, including the director and it is clear that she also has a strong affinity for her organization, "I just feel that we have really good people here...it's a really supportive community to work for." Wendy was confident and well-spoken over the phone but our brief conversation did not prepare me for the young teacher leader I met during my visit to her school. When I arrived Wendy was on the phone with a parent. She waved me into the classroom with a big grin, and continued to multi-task with ease. We met in Wendy's classroom, before children arrived, so that I could settle in and watch the full morning. "Feel free to look around the classroom and find a good spot to observe from, I'm just going to take care of a few things before the kids arrive." "A few things"

included helping a teacher from another classroom manage her email account, talking with her co-teacher about which learning activities they will offer this morning, and suggesting the best time that day for a speech therapist to work with a child one-on-one. Wendy also finds a few minutes to talk with her mentee, who is in the adjacent classroom, about introducing puppets as a way to work through a child's socio-emotional issue; something Wendy witnessed during her observation of the teacher the day before. Wendy adeptly handles these management issues, sets up the classroom, and confers with her assistant teacher, all before 8:45 AM.

Although Wendy is confident and at ease in her preschool classroom, she did not begin her teaching career in this setting; Wendy's skills developed through a traditional pathway to teaching. After graduating from college with an elementary education degree she started teaching pre-K in a private preschool and then took the position in the Head Start program because she was "looking for more of a challenge." While Wendy's commitment to choosing teaching as a profession was innate, her path to working with very young children was not as clear cut. "I always thought I would be an elementary...teacher. It was not until [summer preschool and kindergarten teaching] experiences that I realized that early childhood teaching was my passion." Wendy's path to being an early childhood teacher began with a desire to teach in an elementary school setting, but her experiences with younger children and with disadvantaged children sparked a passion in her that led her to her current Head Start teaching position. Although it was not where she started, Wendy is clear that it is where she was meant to end up. "An increasing ELL population...has challenged me to adjust my approaches... and be more mindful at times ...This is one of the biggest changes and one of the things I love the most about teaching here."

The third teacher in this study, Beth, is a public pre-K teacher in a rural town in northern Maine who arrived at the profession later in life, when she herself was a parent and after exploring other career options. "I went [to college] for nursing in my early 20s and as a single parent it just did not fit into my lifestyle...when my second child was about 10 months old my husband said go back to school." Beth did return to school, but studied education rather than

nursing, and eventually worked in Virginia as a reading recovery teacher for middle school children, an assistant teacher in a first grade classroom, and then as a teacher in a public school Head Start program. Although Beth started her career teaching in the elementary grades, and had a traditional elementary school degree, she found that she enjoyed working in the Head Start classroom. So when Beth moved from rural Virginia to Maine a few years later she sought out a job in a Head Start Program and completed her early childhood teaching certification. Beth's commitment to working in a Head Start program led her to the program in Northern Maine where she has worked as the lead pre-K teacher in a stand-alone pre-K Head Start classroom for three years.

When I first talked with Beth over the phone her enthusiasm about teaching in the pre-K program was palpable. "You're coming at a great time – we do a big unit on ponds and frogs...we make an indoor pond environment with live plants and water." Her tone of voice was welcoming and reassuring, "You're going to love it," she said, and when I finally got to visit Beth's classroom I was not disappointed. Beth's passion for teaching was evident from the first moment I entered the building. She greeted me like an old friend and walked me through the building, being sure to point out the indoor spaces for gross motor play when Maine weather hits, along with the spaces in the building for planning and organization of teaching materials. Beth laughs as she talks about the large room attached to her classroom where she and her assistant teacher have been organizing unit boxes based on themes they use in the classroom, "This space is a little disorganized and we have things spread everywhere because we are putting together our unit boxes." The space is indeed cluttered but it appears full of teacher treasures including shelves of books which Beth is also organizing by content theme.

The building that houses Beth's preschool classroom has seen better days. Although it looks like a typical community center where you might sign up to learn how to knit, or maybe pick up your recyclable bins, seeing it through Beth's eyes makes me realize its potential.

It takes only one visit with Beth to see that this community center is anything but worn down—Beth's creative energy transforms the space into something vibrant and beautiful.

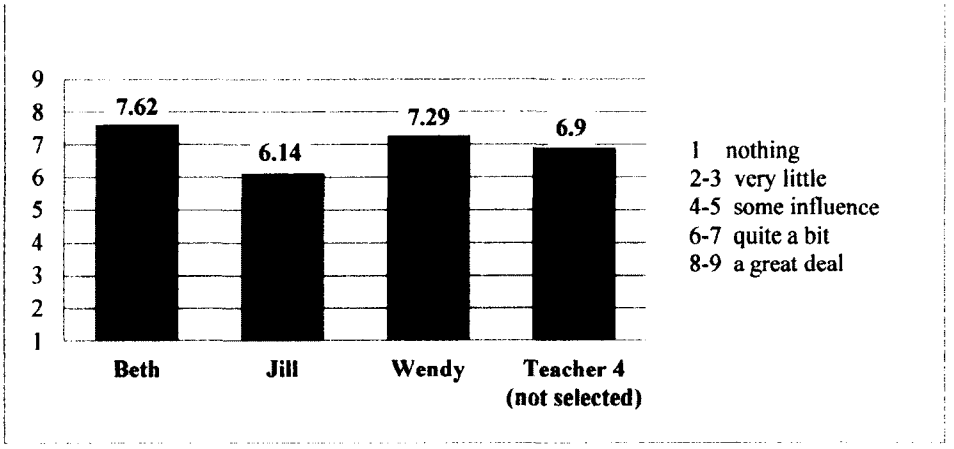
Summary: Background and Qualifications of the Teachers in the Study

Each of the three teachers in this study forged her own path to becoming a Head Start Teacher. For Wendy it was a traditional route through higher education and then the realization that she wanted to work with children at risk to challenge her teaching skills. For Jill and Beth, teaching was a second career option with Jill stumbling upon the teaching position within an agency that housed such programming and Beth choosing teaching later in life after trying other career options like nursing. Although the three teachers in this study took different paths, each of them found their way to a Head Start preschool classroom and the children and families they work with are so fortunate that they did.

Self-Efficacy Scores of the Teachers in the Study

In addition to the background and educational qualifications of these teachers, their efficacy, or their belief in their ability to teach effectively, and that in doing so they helped encourage children's learning, was at the heart of this study. To ensure selection of highly efficacious teachers, I asked Head Start directors to recommend teachers who were confident in their ability to teach in ways that benefit children despite typical daily problems, or in spite of challenges that are out of the teacher's control like family poverty or other conditions that place a child at risk for learning gaps. To confirm that directors' perceptions of highly efficacious teachers were accurate, I collected data about their self-efficacy using Bandura's Teacher Self-Efficacy Scale (1997). Individual scores for the four teachers who responded to my recruitment letter are included in Figure 4.1.

Figure 4.1. Mean Self-Efficacy Scores for the Sample



To define "highly efficacious" I turned to a study of teacher efficacy conducted by Woolfolk Hoy (2000) where she determined 5.92 as the mean score for teachers in their second year of teaching. I used this mean score of 5.92 as an average efficacy score for early career teachers and considered anything above that number as "highly efficacious." As Figure 4.1 shows, all four recruited teachers scored well above the 5.92 mean score identified by Woolfolk Hoy (2000). Although all four teachers who responded to my recruitment letter met the definition for high efficacy, teacher four was not selected for participation. Teacher four and Wendy were both employed at the same site. Because Wendy's efficacy score was higher than teacher four's, I chose Wendy to participate in the study. This allowed for three diverse sites and three teachers well above the mean score used to determine high efficacy for this study.

To provide context for each teacher's self-efficacy and because there was some variability among the three teachers in this study, I will briefly describe each teacher's scores here. Jill's self-efficacy scores on Bandura's Teacher Self-Efficacy Scale (1997) were in the high range, but were lower than the other two teachers in this study, particularly around the self-efficacy dimensions that address things like keeping children on task, managing behavior, and getting through to the most difficult children. Although the full scale was used, Table 4.2 highlight's Jill's scores on those items that measure efficacy related to instructional support such

as "How much can you do to get through to the most difficult children," and "How much can you do to overcome the influence of adverse community experiences?"

Table 4.2. Jill's Self-Efficacy Scores

Self-Efficacy Scale Item	Jill's Score	Sample Average
How much can you do to get the instructional materials and equipment you need?	5	6
How much can you do to influence the group sizes in your school?	2	3
How much can you do to get through to the most difficult children?	5	7
How much can you do to promote learning when there is a lack of support at home?	5	7
How much can you do to keep children on task during difficult activities?	5	7
How much can you do to increase children's memory of what they have previously learned?	8	7
How much can you do to overcome the influence of adverse community conditions on children's learning?	5	7
How much can you do to prevent problem behavior in school?	3	6

Note. Scale score range: Nothing (0-1) Very Little (2-3) Some Influence (4-5) Quite a Bit (6-7) A Great Deal (8-9)

Jill's response to the question "How much can you do to prevent problem behavior in school?" was in the "very little" range; she also indicated that the classroom was struggling with behavioral issues at the time of the study. In fact, during the series of interviews and classroom visits with Jill she identified that her teaching team was very focused on socio-emotional issues that children were struggling with, and she articulated the ways in which this has shaken her confidence around keeping children on task and focused on learning.

> That [confidence in teaching ability] can be a day to day thing...a lot of it stems from how the children are handling things. We do have some aggressive children and that's where my mind first goes to. If there is something where someone is hurt, or you could not prevent something... You know you think about (pause) your job is to keep children

> safe and you end up sending a child home with an injury from another child...that's when I feel unsuccessful...we just had a child leave because she did not feel safe here because of another child. And I just really took that to heart (tears up)...those are the times when I don't feel successful.

Jill's description of her current struggle likely influenced her response to the self-efficacy survey since she is feeling saddened by the recent removal of a child from her classroom. Her emotional response while describing the incident reflected the level to which this incident challenged her self-efficacy. When I asked her a follow up question about how she regains her confidence she talked about the support she receives from her supervisor.

> [Educational leader's name] is wonderful she [helps me]... reflect and work through things—you know, "What did we do?" "What could we have done?" To try to make sure it does not happen again (pauses) and I will say my team is pretty good about discussing things and supporting each other...One thing that helps me [build confidence] is the children's reaction and reading them and being in the moment with them.

Jill reports that reflecting on her performance and thinking about what she might do differently is an important process she uses to build back her confidence in her teaching. Watching, in the teaching moment, how children respond to her efforts is also something that increases Jill's self-efficacy.

Wendy's self-efficacy scores were all within the two highest ranges, which indicated that she believed either "quite a bit," or "a great deal" in her ability to influence children's learning. The only area in which her belief in her ability was lower, was how much she believed she could influence group sizes in her school. This was consistent within the sample group of three teachers; the sample average for this dimension was three, or the belief that they have "very little influence" over this aspect of their school.

Table 4.3. Wendy's Self-Efficacy Scores

Self-Efficacy Scale Item	Wendy's Score	Sample Average
How much can you do to get the instructional materials and equipment you need?	6	6
How much can you do to influence the group sizes in your school?	2	3
How much can you do to get through to the most difficult children?	8	7
How much can you do to promote learning when there is a lack of support at home?	8	7
How much can you do to keep children on task during difficult activities?	8	7
How much can you do to increase children's memory of what they have previously learned?	7	7
How much can you do to overcome the influence of adverse community conditions on children's learning?	7	7
How much can you do to prevent problem behavior in school?	7	6

Note. Scale score range: Nothing (0-1) Very Little (2-3) Some Influence (4-5) Quite a Bit (6-7) A Great Deal (8-9)

This lower efficacy rating for influencing group sizes is not a surprising score since most Head Start programs have group sizes set by state child care licensing regulations and/or Head Start performance standards. Thus there truly is very little a teacher can do to influence this structural component of the classroom since it is regulated outside of the workplace. In all other dimensions of the self-efficacy scale Wendy believed in her ability to teach in ways that would benefit the children in her classroom. Of particular note is Wendy's belief that she had a great deal or quite a bit of ability to: a) get through to the most difficult children; b) promote learning when there is a lack of support at home; c) increase children's memory of what they have previously learned and, d) overcome the influence of adverse community conditions on children's learning.

When I talked with Wendy about things that influenced her belief in her abilities and how she sustained this level of confidence her comments indicated that her commitment to learning

and her ability to seek out supports through professional development feed her confidence and belief in her abilities.

> I feel like I, and actually I think every teacher should be, a lifelong learner, so I think that every single year and every single day, I learn something new... even as a mentor I am out there looking at other teachers' classroom and bringing [ideas] back to my classroom...I am just the type of person who will always be learning and always taking professional development because I don't feel I am perfect—I am always changing, there's always something new to learn.

Wendy talked quite a bit about times when she was less confident and was able to seek out resources and pursue her own professional development to hone her skills.

> When I first started in a Head Start classroom—I did not have a whole lot of knowledge about Head Start or the population we serve. I had come from [private school] and so just the demographics were quite different. I just remember walking into the [Head Start] classroom with children with so much going on in their own lives. I mean children with so much early trauma and on top of that working with the English language learner (ELL) population which I had never worked with.

Wendy credits professional development and time and experience with this new population with helping her to build her teaching efficacy. She shared, "A lot of it was time [and] experience... I was part of Early Reading First at that time so lots of training about working with families that are ELL and part of the Head Start population." In addition Wendy chose to use her coursework toward a master's degree to reinforce her learning, "I was going for my masters...so I tended to choose classes...that related to this population so that I could learn and immediately use that in my work. Everything I learned was immediately useful to me."

Beth sored higher than the group average on all items on the self-efficacy scale. Of note are her scores related to her beliefs about how much she can do to "get through to the most difficult children," and "to promote learning when there is a lack of support at home."

Table 4.4. Beth's Self-Efficacy Scores

Self-Efficacy Scale Item	Beth's Score	Sample Average
How much can you do to get the instructional materials and equipment you need?	7	6
How much can you do to influence the group sizes in your school?	4	3
How much can you do to get through to the most difficult children?	8	7
How much can you do to promote learning when there is a lack of support at home?	8	7
How much can you do to keep children on task during difficult activities?	8	7
How much can you do to increase children's memory of what they have previously learned?	7	7
How much can you do to overcome the influence of adverse community conditions on children's learning?	8	7
How much can you do to prevent problem behavior in school?	8	6

Note. Scale score range: Nothing (0-1) Very Little (2-3) Some Influence (4-5) Quite a Bit (6-7) A Great Deal (8-9)

Beth also believes that there is a great deal she can do to overcome the influence of adverse community conditions on children's learning. Beth is confident in her abilities as a teacher and especially in her abilities to provide instructional support.

To explore Beth's beliefs in her ability to be an effective teacher, I asked her what she believed defined a good early childhood teacher. Her response included technical skills such as knowledge of a receiving school's kindergarten expectations.

> I think one of the most important things is that in the beginning of year set boundaries and be firm—some structure but also be flexible. You have to know the expectations of the kindergarten or the school they will be going up to next.

But she also reflected upon the importance of some innate personal characteristics such as humor and genuine curiosity.

> You have to have a good sense of humor and be a kid at heart—I am always running with the kids in the gym or playing...I am always interacting with the children. I think that's important. I think you have to have a lot of genuine curiosity about things and of course you have to love little kids.

And finally, Beth talked about the need to have a deep working knowledge of child development theory behind her teaching pedagogy.

> A good EC teacher has to know the field, the research, the Piaget, the Vygotsky, all of that is very important. I reviewed that this past summer... you just have to have a good education and I think where I got my early childhood degree one of my professors—associate dean of the college—I just couldn't have done any better.

Beth's knowledge of child development and her ability to form relationships through play and shared curiosity to build a learning community in her classroom help sustain her confidence in her abilities to teach in ways that benefit children. Her personal sense of humor and initiative when it comes to developing materials for her classroom also add to her sense of herself as a competent teacher who can help any child learn in her classroom.

Summary: Self-Efficacy Scores of the Teachers in the Study

Each teacher in this study scored above the average self-efficacy score identifies in the education literature, yet their descriptions about when their confidence is shaken, or when they need to reach out for support offer some insight into the types of things that support their efficacy. For Jill, she reaches out to her supervisor when her belief in her ability is shaken, while Wendy's approach has been to pursue her own professional development when she was unsure about how to work with English language learners. Beth relies on her own teacher preparation and education as well as her relationships within her classroom to sustain her confidence. Each of these three teachers takes a different approach to building and sustaining their teaching efficacy.

Work Site Characteristics for Teachers in the Study

In addition to the path that brought these three teachers to their current positions, it was important to examine the characteristics of the work sites where they teach since things like class group size and whether or not a teacher has planning time can influence teachers' ability to teach effectively. To gather work site details, I collected additional information during an initial phone interview with each of the teachers. I also used a field journal to record my observations of environmental characteristics of each teacher's work site during my onsite observation as well as during my visits to the programs to conduct interviews. The work site characteristics for the three teachers in this study are included in Tables 4.5–4.7.

Geographic and Demographic Characteristics of the Sites

Table 4.5 includes information about the geographic location of the sites, the total enrollment of each site and the demographics of children enrolled.

Table 4.5 Geographic and Demographic Diversity of Sites

	Case 1: Jill	Case 2: Wendy	Case 3: Beth
Program Location	Central Maine	Southern Maine	Northern Maine
Cumulative Enrollment (2014)	295	270	405
Child Ethnicity			
Hispanic or Latino	4.07%	4.07%	1.23%
Non-Hispanic/Non-Latino	95.93%	95.93%	98.77%
Child Race			
American Indian/Alaskan	0%	0.74%	1.23%
Asian	0.34%	2.59%	0.25%
Black or African American	0.68%	44.07%	0.49%
Hawaiian/Pacific Islands	0.34%	0%	0.25%
White	90.85%	44.44%	92.59%
Biracial or Multi-Racial	7.12%	6.30%	5.19%
Other Race	0.34%	0%	0%
Unspecified Race	0.34%	1.85%	0%
Primary Language of Family at Home			
English	99.32%	52.96%	99.75%
Spanish		1.11%	
Central/South American and Mexican		1.85%	
Middle Eastern/South Asian Languages	0.34%	10.37%	
East Asian Languages		2.59%	0.25%
African Languages		30.37%	
Unspecified Languages	0.34%	0.74%	

As Table 4.5 shows, the study sample was geographically diverse with sites located in the southern, central and northern regions of Maine. Beth's site, located in northern Maine had the largest cumulative enrollment for 2014, while Jill and Wendy's sites served a similar number of children.

The demographics of the children served were similar for Jill and Beth. Ninety percent or more of the children enrolled at the central and northern Maine sites were white, with bi-racial or multi-racial children making up the second highest percentage (5.19–7.12%) of children enrolled. Wendy's site was significantly more diverse with an almost equal percentage of black or African American (44.07%) and white (44.44%) children enrolled. In addition, at Wendy's site only 53% families indicated that English was the primary language spoken at home, while more than 99% of families in Jill's and Beth's programs identified English as their primary language.

Structural Characteristics of the Sites

Other variability among the selected teachers' work sites included program models (Head Start/Pre-K located in a public school setting, Head Start/Pre-K in a community setting, and Head Start/Pre-K/child care combination located in a public school setting). Structural characteristics such as student /teacher ratios and group sizes, and program type are included in Table 4.6.

Table 4.6 Structural Characteristics of the Sites

	Case 1: Jill	Case 2: Wendy	Case 3: Beth
Program Model	Child Care/Head Start/Pre-K combo in public school	Head Start/Public Pre-K classroom in public school	Head Start/Public Pre-K classroom in community
Full or part day	full day	part day	part day
Program Type	full year	part year	part year
Teacher/Child ratio	1/8	1/8	1/8
Class group size	17	18	16

While teacher/child ratios and group sizes were similar across all three of the teachers' work sites, program delivery options differed considerably. These structural characteristics, along with the characteristics of the communities in which the buildings reside, are discussed here. Jill's site offered a full day, full year Head Start/pre-K/child care combination of services, located in the same building as the elementary school where children will attend kindergarten. The program offers public-pre-K and also houses child care and Head Start Services. The building itself is nestled into a low-income section of the town adjacent to a long stretch of strip malls and fast food establishments. If I had not known that the program was situated off a side street from the main drag, I would never have found it. Turning onto the street that led down a steep hill to the school's main entrance I passed duplexes and small single homes packed tightly together and aligned in a row. It is not until you enter the parking lot of the complex that you see the enormity of the school—both elementary and preschool and the large footprint they have in this neighborhood.

Children attend this Central Maine program five full days a week and have the option of year-round attendance as well. Jill's classroom is housed in a building designed specifically for early childhood teaching and learning. The early childhood sections (Pre-K, child care and Head Start) were a new addition to an existing public elementary school and everything from the children's garden that lines the walkway to the child-sized furniture in its lobby conveys the message that children are welcomed and cared for in the space.

Beth's site was a traditional half-day, partial Head Start/pre-K combination offered in the community but not located near the school where children would attend kindergarten. Driving into town on my visit to Beth's classroom I missed the pre-K program on my first pass through. Located in a small building, the program is nestled into the hillside and set back a ways from the main road. As I navigated my way through the rural town I was struck by the smallness of it—the sight of rural poverty is something I never quite get used to even as I travel throughout Maine. I passed lawns with cars in varying levels of disrepair, sitting as if they are ornaments in the front yard. It's a mix of single family homes, older farm properties, and modular trailer homes. A few homes have signs out front depicting small businesses—small engine repair, antiques, day care and family hair styling. Nestled within this four mile strip of Main Street is the school community center, which houses the preschool.

Wendy's site was also a half-day, partial year Head Start/pre-K combination, but it was co-located within the elementary school complex where children would attend public kindergarten. The program serves over 200 children in southern Maine and Wendy's classroom had a total of 18 children enrolled when I began visiting her. Wendy's classroom is situated in the city's community center, adjacent to the elementary school, but not in it. The community center is part of a group of buildings centered in the downtown area of this southern Maine city. Both the community center and the elementary school are old buildings that show their wear and tear. Classrooms and a cafeteria run by the vocational program are housed in the front of the building. In the back is a large adult education space, a community pool, before and after school

programming space, and two Head Start/Pre-K classrooms. Wendy's classroom is in a locked hallway, near the before and after school program classrooms.

It is hard to describe the degree to which each work site had its own culture, but indeed that was the case. After each visit to a teacher's work site I was conscious of these differences and the fact that when one teaches in a center built for children, or one that demands sharing space with other more adult-centered activities, or one located along a quiet rural main street, environment becomes part of the story. The teaching that occurs in these spaces influences and is influenced by this environment; thus Chapter Six will explore this concept as it relates to the teachers in this study.

Curriculum and Professional Development Offered by Sites

Other variations in the sites at which the selected teachers worked included programs with varied approaches to curriculum and supports for professional development related to the CLASS tool. These characteristics of the teaching sites are included in Table 4.7.

Table 4.7. Curriculum and Professional Development

	Case 1: Jill	Case 2: Wendy	Case 3: Beth
Curriculum	Creative Curriculum™	Opening a World of Learning™ (OWL)	Project-Based Emergent Curriculum
Developmental Assessments/Process	Teaching Strategies Gold™	Teaching Strategies Gold™	Teaching Strategies Gold™
Planning time	Weekly in teaching team (paid time during work day)	Weekly in teaching team (paid time during work day)	Daily (paid time during work day)
CLASS related activities	Videotaping with feedback and joint observations with supervisor	Mentoring with use of CLASS for feedback and professional development	Observation and feedback from supervisor

Among the three teachers' work sites there was diversity in curricular approaches. Jill's site used the Creative Curriculum™, published by Teaching Strategies, which is also the publisher of the formative assessment tool used by all three sites: Teaching Strategies Gold™. The Creative Curriculum™ and Teaching Strategies Gold™ are popular among Head Start

programs since they are based upon 38 objectives for children's development and learning, which are fully aligned with the Head Start Child Development and Early Learning Framework as well as early learning standards for every state (Teaching Strategies, 2015). Wendy's uses Opening the World of Learning™ (OWL), a curriculum published by Pearson, which she was introduced to as part of her site's participation in an Early Reading First grant. Early Reading First grants were federal grants awarded to communities with a high percentage of low-income children to enhance the reading readiness of preschool age children. The OWL Curriculum™ was designed to develop oral language and early literacy skills for Pre-K children (Pearson, 2015). Beth uses a project based approach, which is not a published curriculum, to enhance the Creative Curriculum™ framework used in her agency. In her approach Beth uses children's natural curiosity to plan for children's study of concepts through a theme-based learning unit. Beth's approach takes a unit of study and integrates it across the classroom learning activities. This method is sometimes also called an emergent curriculum since the learning themes and units emerge from children's interest. Because the project-based, or emergent curriculum, is not scripted in a teacher's manual, Beth and her co-teacher develop their own activities in an ongoing way. This may be one of the reasons that Beth indicates that curriculum planning takes place daily in her program, whereas Jill and Wendy indicated a weekly approach to curriculum planning.

Each site also differed in approach to professional development related to the CLASS observation tool. Jill's and Beth's teaching sites were most similar with some form of CLASS observation performed by an educational leader or supervisor with follow up discussion and feedback on the results of the observation. Wendy's site was using a mentoring approach to professional development around the use of the CLASS whereby Wendy both received feedback on her own teaching and also offered feedback to her peers. In this model Wendy mentors other teachers' ability to meet the indicators for teacher performance within the observation tool.

Summary: Worksite Characteristics for the Teachers in the Study

Characteristics of the worksites for teachers in the study varied by program structural features such as length of school day and physical location the community. They also each had a slightly different approach to curriculum used by teachers to guide the planning of learning activities, as well as professional development offerings for teachers. Sites were less diverse in terms of the demographics of children and families served. One site had significant diversity among children and families enrolled, while the other two primarily served white, English-speaking children and families. Taken together, the characteristics of these three sites represent different teaching environments to be considered in the study of teacher efficacy.

Chapter Summary

This chapter provided descriptive data about three teachers, Jill, Wendy, and Beth who serve as the subjects of this study. In addition to background information such as their educational degrees, work experiences, and path to their current teaching positions, the chapter also provided information about each teacher's self-efficacy and the work sites in which they teach and learn. This contextual information about the three teachers and the environments in which they work serves as the backdrop for Chapters Five and Six, which explore data related to: a) how and to what extend these three teachers provide instructional support; and b) how the environments in which these teachers work support or challenge their belief in their ability to provide such support.

CHAPTER FIVE

INSTRUCTIONAL SUPPORT IN THE HEAD START CLASSROOM

Chapter Five presents the data related to the research question "How and to what extent do highly efficacious early career Head Start teachers employ instructional support as defined by the CLASS (Pianta et al., 2008)?" Data collected from teacher and educational leader interviews as well as onsite observations are examined to learn about a key construct that frames the study: instructional support in the Head Start classroom. The theoretical framework for the domain of instructional support in the CLASS tool is based upon research on children's cognitive and language development (Pianta et al.). According to the authors of the CLASS (Pianta et al.), children's construction of knowledge, their engagement and active exploration of learning concepts versus passive reception of knowledge from a teacher, and their ability to understand and explain their thinking (metacognitive skills) are the key learning objectives measured by the instructional support domain of the CLASS.

The instructional support domain of the CLASS (Pianta et al., 2008) tool includes these dimensions: a) concept development, or the way in which teachers use discussion and activities to promote children's higher order thinking versus teachers' use of rote instruction; b) quality of feedback, or how teachers extend children's learning by responding to children's comments, ideas and work throughout an activity; and c) language modeling, which includes the extent to which teachers facilitate and encourage children's use of language (Pianta et al.).

In classrooms with high scores on the instructional support domain of the CLASS (Pianta et al., 2008) tool, teachers work side by side with children to facilitate learning, asking open-ended questions about children's work, participating in hands-on activities to enhance and extend children's understanding, and observing children's own interaction with learning materials to determine appropriate levels of support.

Research by Margaret Burchinal and her colleagues (2007) offers some insight into what constitutes high quality instruction as measured by the CLASS (Pianta et al., 2008) tool. Her

study explored whether or not there was a cut off score at which quality was "high enough" to make a difference in low income children's academic gains. Burchinal and her colleagues found that "children acquire academic skills only when the minimal standards represented by our cut-off point of above a 3.25 on the CLASS Instructional Quality Dimension are met, and that higher quality instruction produces more academic gains" (2007, p. 174). This research suggests that children in classrooms that score below the 3.25 threshold for instructional support may not be receiving the level of interaction needed to support their learning, "It is likely that below that point [3.25], there is too little explicit instruction or guided child-centered teaching for academic learning to occur" (Burchinal et. al., 2007).

Employing instructional support strategies in early childhood classrooms is critical to scaffolding children's learning experiences and thus their overall development of social and academic skills. Data about instructional support—what it looks, sounds, and feels like in three teachers' classrooms—are presented to explore the way instructional support is delivered and the types of activities that comprise instructional support in these preschool classrooms. The description of instructional support in each of the three teachers' classrooms begins with a description of the organization of the learning environment, and progresses to include the way that each teacher plans for and differentiates instructional support. Environmental descriptions for each classroom were composed from a synthesis of observational data, field notes and the researcher's journal to develop an illustration for each case. A description of instructional support framed by the three dimensions of instructional support defined in the CLASS (Pianta et al., 2008) tool is provided as well as information about children's responses to instructional support. Data about planning for and differentiating instructional support are also presented because they emerged as common subcategories within the data collected during interviews with teachers and educational leaders.

The chapter ends with a cross-case analysis of data about instructional support in the three classrooms to provide summary information about case commonalities and differences

related to the research question: "How and to what extent do highly efficacious early career stage Head Start teachers provide instructional support as defined by the CLASS (Pianta et al., 2008)?"

Instructional Support in Jill's Classroom

Instructional support in Jill's classroom includes: a) the organization of the learning environment, b) descriptions of instructional support in the areas of concept development, quality of feedback, and language modeling; c) children's responses to instructional support; and, d) the way in which Jill plans for and differentiates instructional support for children.

Organization of Jill's Classroom

Jill's classroom is arranged to promote independent and collaborative learning opportunities. Children's spaces are designed specifically for independent play while also making room for small and large groups to gather. The room is set up into four distinct learning areas: 1) arts and table top activities, including a writing center; these tables also serves as the place where children eat family style with peers and teachers; 2) an activity area with easels and paint, water, and sand tables set up near two child sized sinks, adjacent to the child-sized toileting area; 3) a carpeted stage and floor area, which serves as both dramatic play and reading areas; and, 4) a block and small manipulative area where children can build and play on a carpeted area. In addition to these child play spaces, a transitional area with an adult sized chair and enough cubbies for each child to store his personal belongings occupies the space immediately inside the door. During my visit this area was used by children and parents to make a gentle transition to the classroom. For instance, a parent can sit in the chair while children take off their outerwear and begin to say goodbye. After parents leave, children also return to this transition space, and their own cubby, to store a picture to bring home or to simply sit in a quiet space of their own.
The room layout is designed to encourage collaborative small group learning and to support relationship-building among the children and among teachers and children. This commitment to building and sustaining relationships is echoed in Jill's description of her approach to teaching in her classroom.

> I think it's about relationships—it's all relationship based. When a child knows you and knows that they are safe and respected it makes a real difference in how receptive children are to your supports...once you get to know them, you just start to know what the child needs in the moment and how that is different from another child.

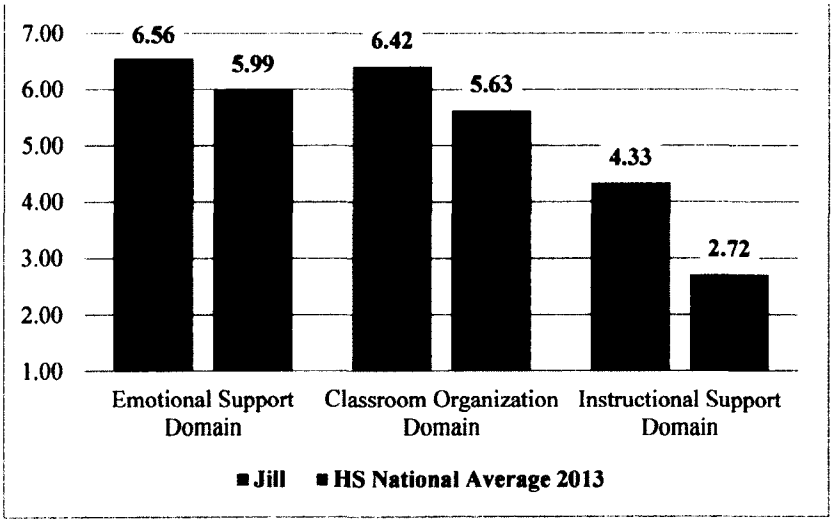
Jill explains that she and her team rely on relationship-building strategies such as the way the classroom is arranged or their commitment to engaging with children during less-structured play activities to enhance their knowledge of children and families. In turn, she and her team use this knowledge to tailor their teaching to meet the needs of individual children and for the group as a whole.

On the morning of my visit, children and teachers use the space well to promote relationships. One teacher is on the stage in the dramatic play area enacting some version of a princess-themed plot. She wears a tiara and engages in conversation with children about what princesses need to do when preparing to attend a ball. Another teacher uses the adult sized chair to sit with a child who is struggling after a difficult drop-off and separation from mom. In the reading area two children sit in a double-seated rocking chair looking at a book together. Jill is stationed in the block area, working on a tower with a group of three boys. The room has a pleasant hum about it and I can see that teachers know these children and understand their preferences for fairy tale plots, building tall towers, or extra lap time after saying goodbye to mom. None of these interactions feel forced or unnatural, and children are happy to ignore me as I settle into a corner of the classroom to observe.

CLASS Instructional Support Dimensions in Jill's Classroom

Jill's scores on the CLASS tool that I used to observe her teaching were above the national Head Start averages reported in 2013 (Figure 5.1). Jill's scores were almost two points higher than the national average in the area of instructional support. More importantly her scores were higher than the threshold of 3.25 identified in the research literature (Burchinal et al., 2010) as the point at which the quality of instructional support results in positive outcomes for children.

Figure 5.1. Jill's CLASS Scores



Concept Development and Quality of Feedback. Jill's provision of instructional support was evident across my five hours of classroom observation. During that time, Jill used both one-on-one interaction as well as interactions with small groups to support children's learning. During the small group block play described above she asked the group questions such as, "Hmmm, it sounds like you want to make this higher. If we want the block structure to be higher, what should we do?" When one child responded that he wanted to add two more blocks she helped him think it through in an attempt to help him avoid frustration, "Do you need both? Will two be too many do you think?" When the child decided to place both blocks on the structure, it inevitably fell over. Jill encouraged the boys to try again by saying, "It fell over. That gives you some good information about what to try next." "What will you do now to make sure it does not fall over again?" She stayed with the group for a little while longer until she was confident that they were focused again on solving the problem at hand and that they understood the concept of building a secure base with the larger blocks before trying to build a structure that would be too high and topple over. "I think that if we make it a little more sturdy on the bottom that will help when we make it taller." "Does anyone have a different idea about making it sturdier?"

These back and forth exchanges where Jill encourages children to think deeply about these concepts and to persist with a design that will support a taller tower are examples of her ability to scaffold children's exploration of concepts and to help solidify them for children. Children leave this interaction with a greater understanding of a concept—in the early childhood classroom these back and forth exchanges provide a quality of feedback that encourages children's understanding. These types of interactions are scored within the quality of feedback and concept development dimensions of instructional support.

Language Modeling. Jill persists with children, such as the group in the block area, by engaging conversationally with children to ensure that they are maximizing the learning available in their play-based activities. Jill describes her approach as one where she and her fellow teachers work to capitalize on teaching moments during both structured and unstructured time. "We try to use any opportunity to extend conversations....we will talk about the peas or whatever the children are talking about to extend their thinking about things, even while we are in a routine activity like lunch." These types of conversations offer a chance for language modeling, another dimension of instructional support, where Jill and her co-teachers use advanced vocabulary and repeat and extend children's expressive language.

Even though Jill has a full day with children, she feels that she has to work hard to make sure she has enough time to focus on learning activities. She works hard to balance teacher-directed versus child-directed time.

> I do think that over the years I have been working in the field that it's gone from free play to more structured play and facilitation and I understand the importance of both but it is hard to fit it all into a day.

Jill's desire to ensure that she has enough time to reinforce children's learning means that meal times, transitions, and daily routines are all seen as times in the day that are ripe with learning opportunities.

Children's Responses to Instructional Support

According to Jill, providing a balance between free play and providing teacher-guided instructional support is something that she has worked on and changed in her teaching practice.

> When I first started [I] was very strong in the child-directed, open–ended [activities]...I really had to work on myself being more instructional...I need to provide them time to figure things out on their own, but my role is also educational—so that is one of my goals to balance that - to give them opportunities and to educate them—that's a piece we are all transitioning to.

Jill described that this commitment to her role as an instructor has been reinforced by children's response to what Jill would consider more structured learning activities than those she might have offered in the past.

> You know I have seen the effectiveness of the approach with children...when we first started I was like...this is 180 degrees opposite of what I was taught, but now our children are eating it right up and it's not like they are pressured...it's not stressing them out—I stressed out more about it when we started than they did...and they are like "Can we do the letter P?"(with excitement in her voice)...we actually just did transition for our children going to kindergarten and the amount of pre-academic knowledge they have is amazing.

Jill explained that her experience with providing more structured activities was stressful for her at first, but when she saw the benefits to children she was more comfortable adopting the teaching practices. She reinforced that children's response to her teaching is a way that she measures the value of an instructional strategy, and her continued use of that strategy, in the following interview excerpt, "You can see it [children's excitement about a learning activity]. I want them to have fun and enjoy childhood, and as long as they can do that and we can maintain the instructional part, it works."

Jill's description of her success in using more explicit instruction and its influence on her commitment to continuing to use this approach is consistent with Bandura's theory that mastery experiences support teacher's self-efficacy. In Bandura's theory, teachers' successful experiences in the classroom, and the positive impact their efforts have on children, work to increase teachers' belief in their teaching efficacy. Jill's experience in seeing the positive effect of a more structure approach in her classroom provided a mastery experience for her and fortified her belief in the benefits of this approach and in her ability to implement the more explicit instruction.

When I asked Jill how she manages when mastery is not at hand; when she believes that children are struggling with a concept or idea, she articulated an approach to instructional support that involves repetition. "If the child is not getting it right off it does not mean that ten times down the road he will not get it." Jill persists when children struggle because she believes that in doing so, she will eventually be effective. Jill also brings additional hands-on learning materials to bring a concept to life because "things like technology or hands-on materials can help deepen children's understanding."

Jill provided an example of using of hands-on learning materials to reinforce a developing concept for a child when she described her interactions with a child who is interested in maple syrup and how it is made. I asked her to imagine her response with the child if she thought that the child was struggling to understand that process.

> I think that this is where technology can help—I might use internet to show a short video of how maple syrup is tapped for example…I might bring in a piece of tree or wood and bring in the tool to make the hole and demonstrate how that happens - sometimes you can get the real tool—I have a neighbor who taps trees so I might ask him for the real tool and bring it in to demonstrate it.

Jill described this approach, which involves providing some direct support for a child who is struggling to understand, with ease. It was not difficult for her to imagine what she might do to intervene for this child, and she barely paused before answering my question. From an

interviewer's perspective it appeared to be an easy answer for her, as if she was describing something she had done a thousand times. My effort to unpack that during the interview led to a conversation with Jill about the planning she undergoes behind the scenes, to make these teachable moments a reality.

Planning for Instructional Support

In Jill's classroom instructional support appears to happen in the moment, as a natural outgrowth of things that children are already interested and engaged in. The subtlety of Jill's use of instructional support strategies such as scaffolding a concept with hands on materials, or arranging the environment to encourage small groups of play, makes it appear easy. The degree to which these interactions and supports are carefully planned and coordinated in advance is lost to the everyday observer. Talking with Jill about the planning that is involved in setting up such opportunities to provide instructional support uncovered a team planning process that is coordinated around children's interests and developmental needs.

Jill explains that although instructional support activities occur in the everyday moments of the classroom, she uses weekly curriculum planning time to think about children's emerging interests or thematic units the team might introduce in the coming week. In doing so, Jill and her team prepare to support children's learning during the natural course of a day. Jill described this approach to curriculum planning as one that involves reflection with her team about what children's interests and developmental needs are, as well as reflecting on where children are struggling with concepts or ideas. The team meets weekly to share ideas, assess current classroom learning activities, and plan for the following week.

> We try our best to have a full team meeting every Wednesday—all four of us come together and we usually have a pretty good idea of what the children are interested in and what comes up. We do use Teaching Strategies Gold™ [Creative Curriculum's formative assessment tool] to see where the children are developmentally, and...build on that if we need to individualize something for somebody.

Jill also talked about how flexibility in curriculum planning to allow for modifications in response to children helps her balance the needs of one child within the group while being responsive to all of the children in her classroom.

> You know we just try to meet 17 children's needs within a reasonable plan and we are flexible—if we try something and it doesn't work, we aren't going to force it. So if we see that children are interested in painting on a particular day then we will go with it, and paint.

Jill described her approach to curriculum planning as one that involves a team process of gathering information about children through their daily interactions and observations of children's learning and using that to plan for the coming week's activities. Within that planning Jill acknowledges her need to balance teacher- and child-directed learning to ensure children get the most out of the learning experiences she designs. "Children need to have choices and our job is to encourage them to learn whatever they want to learn...I think our classroom does a really good job of following the child's interest." But even as Jill described this process she reflected upon the balance between following children's interest and her need to provide some teacher-led activities. "It is also our job to instruct. We try to balance with open-ended questions but then to also provide information...my role is to go out and find information...and bring it back to the classroom." She explained that this is a process of "scaffolding [children's learning] and [allowing for] problem solving on their own but also giving them knowledge because...they are asking for information."

Jill's interest in bringing information into her classroom is an area where the overlap of home and school is evident. She explains that this is "part of the job that is not part of the job" and it is clear that this is just part of her approach to teaching.

> When I am out in the community I am always like 'oh so and so would love this! I need to bring this back to them' you know it's just part of the job that is not part of the job... I am always thinking about my classroom even when I am not in it.

Jill plans for curriculum with her team, but keeps children's needs and interests in her mind whether she is in her school or home environment. It is clear that Jill does not see this as unusual, "It's just how I've always been," she says. Part of her desire to keep the needs of her classroom in mind at all times comes from wanting to meet the children where they are, and ensure that their unique interests are reflected in the types of experiences she plans for in her classroom. "Even when I am with my own children, out in the community, I am thinking about specific children in my classroom...you know, how can I bring this back with me?"

Differentiating Instructional Support

Jill's knowledge of individual children and what they may need in any given moment is apparent during my observation of her classroom. Jill moves around the room during my observation, checking in on children she knows might need a little more support. When the block play becomes a little too rambunctious she subtly rejoins the small group of boys on the carpet and redirects their construction efforts by asking open-ended questions and guiding their exploration of balance and structure. On another occasion when she notices a child watching a group working a floor puzzle, Jill asks her, "Should we ask if we can help them?" Then Jill successfully modeled entry into play, staying just long enough to ease the transition while ensuring that the child who wanted to join was the primary participant. These subtle but powerful interactions ensure that children's relationships with peers enhance rather than detract from learning opportunities.

Jill's instructional supports are the result of careful planning, but also of solid knowledge of children as individuals and her desire to differentiate her teaching in response. Jill talked at length over our conversations about really knowing children as individuals and using that to individualize her teaching strategies. She explains that this involves a process of examining "where they [children] are at and what their skills are," and then modifying the instructional approach in response.

> You know if you see a child struggling—like cutting and holding scissors. What I do is sort of stop and step back for a moment to watch what the child is doing and assess what is happening and then I step in and I could do...hand-over-hand assistance...or reposition their hands with the scissors.

In Jill's classroom differentiation also involves modifying curriculum or the classroom environment in response to the anticipated needs of children. "A lot of our children are working on social interactions and we...position ourselves to be available if the need arises." When I asked her to explain more about how she knows which children will need additional support beyond these types of in-the-moment observations of children who are struggling, she talked about the use of formative assessment data.

> We use their assessments but not as...drill and skill...but more like oh this is an area where a lot of children are not doing well so obviously we need to do something different—like as teachers what do we need to do?

After examining formative assessment data, Jill and her team use that to make curriculum modifications, embed needed learning activities, or plan for individual supports. It is a process of changing their approach in response to children and it implies her belief that if children are struggling with a concept she can change her teaching practices in ways that will make a difference in their learning.

> That's how we look at it anyway...we just did our parent teacher conferences with Teaching Strategies Gold™ [assessment data]and math was a [weak] area...we want to make sure we are not missing that. So last week we created math games, introduced them to children and then placed them in the learning activity areas for children to use during the day.

The use of this type of child data was confirmed in my interview with Jill's instructional leader as well who talked about assessment data as a whole and its usefulness to teachers' planning. Jill supervisor said,

> I think that data is helpful to the teachers. [Name of an external evaluator] does fall and spring assessments and this helped to look at what children are doing at the beginning and how they have grown at the end of the year. That helps give a snapshot of what they need to be doing and tying all of this—child data, data from CLASS and environmental ratings—how do they tie those together to improve practice, plan for curriculum, and ensure children and families get the most out of our program?

This type of comprehensive assessment occurs at Jill's program because they are part of a national study about effective early childhood programming. In addition to formative assessments done by staff, teachers like Jill also have access to data from child assessments conducted by external evaluators. In addition, the evaluation team observes and evaluates teachers using the CLASS. They also conduct environmental ratings of each classroom. This results in a wealth of information about classroom teaching and learning that helps teachers and educational leaders plan for improvement and optimize their program design to support children and families.

My interviews with Jill confirmed that this comprehensive approach to assessment is valuable to her.

> [Educational leader] does observations and when we get our assessments back they are used like—here's what came up and what can we do about it—especially the CLASS scores because it is about interactions and more personal for people. It helps overall that we do these observations because teachers are more conscious of what they do and how they talk with children. It is a tool for continuous improvement.

In addition to one-one-one feedback, assessment data is used for broader, organizational staff development activities.

> Sometimes we look at things and how they are related to the CLASS - in a recent team meeting—we talked about [teacher] sarcasm and asked "Ok—what it the purpose of that?" Because we know that it is part of negative climate on the CLASS and so we look

at that tool and use it to work on our practice. It's a working tool not just an assessment or evaluation.

Summary: Instructional Support in Jill's Classroom

Jill's scores in the instructional support domain of the CLASS (4.33) indicated that she was effectively providing instructional support in her classroom. In addition, classroom observations confirmed Jill's use of instructional support strategies such as engaging in rich conversations with children to enhance their understanding of concepts and mastery of skills. Jill described instructional support in her classroom as a balance of hands on learning activities that are planned weekly and based upon children's interests and developmental needs. Differentiated instruction is used by Jill to ensure that individual children's needs and interests are represented in the types of learning activities offered, and to support children who are struggling with concepts or a developmental skill.

Instructional Support in Wendy's Classroom

Instructional support in Wendy's classroom includes: a) the organization of the learning environment, b) descriptions of instructional support in the areas of concept development, quality of feedback, and language modeling; c) children's responses to instructional support; and, d) the way in which Wendy plans for and differentiates instructional support for children.

Organization of Wendy's Classroom

On my first visit to Wendy's classroom there were projects galore around the room—planting and growing seems to be a focus as there are seedlings set up on a large tray with grow lights hanging over them. The writing area is set up like a post office with a mailbox for each child. Throughout the morning of my visit children write notes and letters to one another, place them in an envelope, and address and deliver them to the intended child's mailbox. Children also retrieve letters left for them from the same boxes. Children's artwork is displayed around the room.

The room itself is a traditional industrial rectangle with 8x8 tiling on the floor and cement block walls that have been painted a bland beige color. Wendy has made the room feel warm and inviting with soft lighting and plants, baskets and comfy places to sit with a friend or to read a book. Books, words, labels and letters are everywhere in this classroom. Pictures of children are framed in wooden frames that children have constructed and painted themselves. They hang on the wall at children's eye level in the reading area. Evidence of children's interest in spring planting is also in the book area where books about flowers, plants and growing are present on the book shelf. Both expository and fictional books are present. There is also a book written by the students titled, "Spring Brings" and each page is an individual child's description and picture of what changes the season brings to the outdoor environment.

In addition to designing her classroom setting in response to children's interest and needs, Wendy is clear about her own role in ensuring children's learning in her classroom. When I asked her what makes a good teacher, she offered the following.

> I really think the number one thing is...knowing children and forming relationships...you need to relate to children and you need to form relationships because if you don't have that then really anything else you are doing doesn't have as great of an impact that it could.

Wendy's comment describes her belief that children's learning is maximized when she takes the time to form a relationship with them. This relationship allows her to make sure children are getting the most out of her classroom's learning opportunities. Wendy's emphasis on the importance of knowing children extends to her understanding of how to best provide instructional supports to children.

> The most important thing as an early childhood teacher is to first get to know children and then to find out where they are at developmentally, socio-emotionally and start there to build on what knowledge and skills they already have, and then identify what areas we need to work on.

From there, Wendy explains, she can design learning activities that are meaningful to individual children because she knows their interests and needs. "The way that I teach—it's all about hands on interactive experiences to make the learning meaningful and ...trying to design what we are doing around my students' learning styles."

CLASS Instructional Support Dimensions in Wendy's Classroom

When I pushed Wendy to describe what her approach to instructional support looks like in practice she described her approach to integrating learning across classroom activities beginning with large group time, where she engages children in an activity called, "let's find out about it" to provide background knowledge that allows children to take advantage of the learning activities she plans throughout classroom learning centers and individual interactions she has with children.

> A lot of the times I'll start with some sort of introductory book or resource pictures depending on the topic to build a frame of reference and then whenever possible I have something tangible for children to touch and experience. Yesterday we were doing a 'let's find out about it' on shadows and so in that activity I was the one providing the experience—I was the one moving the flashlight, we were using puppets, moving the hand puppet closer and farther from the light and talking about shadow size, but I also gave the children the opportunity to hold the flashlight and from there it then goes into the center time for the next day.

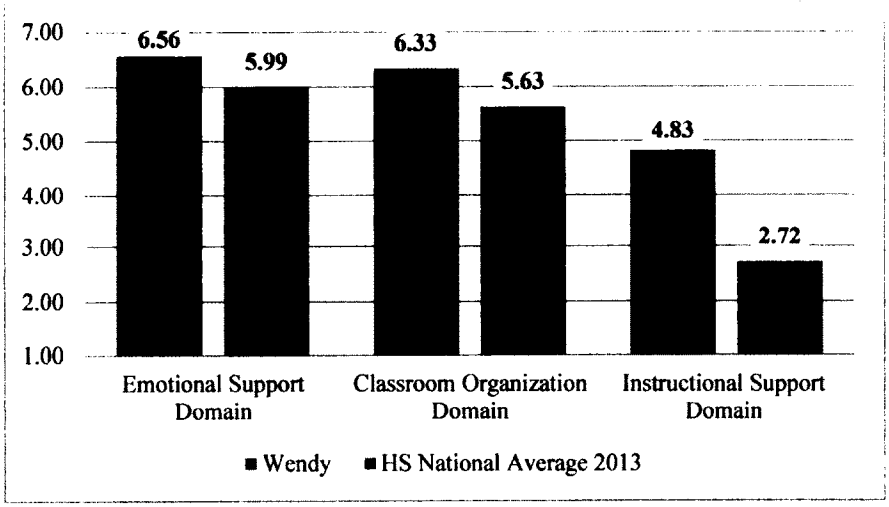
Wendy explains that her instructional support skills have developed from her use of the Opening a World of Learning™ (OWL) curriculum.

> OWL curriculum has really helped me to understand connections between what I am doing so I always have a purpose...and it always carries over so that children can use that knowledge and information that we are learning about in multiple experiences. So they use the flashlights and puppets in discovery and then we go on a walk and look at shadows outside, and in our block area there will be flashlights and they will have the

chance to build different sized structures and examine the shadows they make. So it's all over the place to make learning meaningful.

Providing this type of background knowledge to the group and following up with hands-on activities helps to reinforce children's understanding, and important construct within the instructional support domain of the CLASS. Wendy's effective approach to instruction was evident in her CLASS scores which, for instructional support, were more than two points higher than the national Head Start average in 2013 and well above the 3.25 threshold (Burchinal et al., 2010) for high quality instructional support (Figure 5.2).

Figure 5.2. Wendy's CLASS Scores



Concept Development and Quality of Feedback. Wendy uses back and forth exchanges with children to provide instructional supports that boost their understanding of concepts. At a table in her classroom set up to help children explore different types of seeds she has a lengthy conversation with a child who is trying to guess which seeds belong to which flower shown at the table. Which seed does that look like? "I see small round bumps, which picture here shows small round bumps?" "What else can you do to figure this out?" When the child suggests using a tool at the table he cannot label, Wendy offers the word for him, "That's a magnifying glass. It magnifies things." She explains, "Magnify means it makes it bigger so we can see it better." Wendy waits for a minute and then asks, "What happens when you look at that seed through the

magnifying glass?" When the child says, "I see it better now," Wendy repeats and extends his understanding, "You see it better? Is it bigger and closer? That's magnified. When you look through the magnifying glass it gets bigger and closer so you can see it better."

Language Modeling. Wendy's classroom has a consistent and pleasant hum to it. Children converse with one another and with teachers naturally as they move in and out of learning centers on the day of my visit. When a child struggles to communicate with a peer Wendy quickly scaffolds his attempt, "Are you trying to tell him you don't need any help?" She kneels down next to the child so that her face is at his level and he can see and hear her as she models words that might help, "No thank you, I can do it," she says out loud. "That's one way you can tell someone you don't need any help." She prompts the child to try to say the words, "Can you try telling him you can do it?" In a soft voice he says, "I can do it," which resolves the situation and the two children happily resume their parallel play. Perhaps because so many of the children in Wendy's classroom are English language learners, she consistently map her actions verbally, "I am putting out paper on the art table; I am scooping fruit out of the bowl with the ladle," and those of the children, "You're looking at the sponge soaking up water." At the same time she encourages their expressive language skills by asking thoughtful questions, "Tell me what you're doing," or "Did you want to say anything else about the butterfly?" prompt children to share their ideas and to practice their language skills.

During all of these teachable moments Wendy uses back and forth exchanges to increase children's understanding. The quality of Wendy's feedback works to enrich conversation for children. These types of teacher-child interactions happen regularly in Wendy's classroom and she makes sure to rotate around the room so that children all have some time with her one-on-one or in a small group where she can reinforce children's understanding and prompt their verbal descriptions of concepts.

Children's Responses to Instructional Support

Many of Wendy's instructional support strategies are outlined in the OWL Curriculum she uses to guide her teaching. Wendy's use of the OWL curriculum is fueled by her confidence that it is beneficial for children, "I saw what a difference it made for children. Because of that I am committed to continuing with it even without all of the ongoing supports that were part of ERF." This experience for Wendy was a type of mastery experience (Bandura, 1997) that worked to solidify her confidence in the teaching approach.

I asked Wendy about what role the OWL Curriculum™ played in her ability to plan for a balance of child- directed and teacher-directed learning activities.

> I ...use the OWL Curriculum™ as a base but I am constantly interchanging different activities...on those observations and assessments of children... I remember last year a child really showed an interest in cars so I just changed the OWL painting activity to a car painting activity.

Wendy believes in the effectiveness of the OWL Curriculum™ but also believes in her own ability to discern what types of activities best meet the needs of children. Thus, Wendy uses her knowledge of children to make curriculum modifications in response to children's interest but still follows the sequence of learning set out in the curriculum because in her words,

> Especially for literacy and school readiness it has some really good foundational things but... if you came in my classroom and actually looked at the manual [OWL] compared to what I was doing it would be similar but with many changes based on individualizing for children.

Using an effective curriculum as a base for classroom planning, while also making modifications based on her knowledge of children, allows Wendy to differentiate her instructional support.

Planning for Instructional Support

Wendy's approach to instructional support was a little bit unique from the other two teachers in the study because she uses a more scripted curriculum that reinforces specific

approaches to language and literacy supports for children. Because Wendy talked about her appreciation for this curricular approach and the way in which curriculum can guide a teacher's instructional support strategies, I explored it in my follow-up interviews with her. I wanted to get a sense of the ways in which this use of curriculum influenced her teaching.

> So typically planning is by classroom so my assistant teacher and I try to sit down together...on Tuesday afternoons and block out an hour or so to do planning...we use the OWL Curriculum™, our individualization of children, and the Head Start and Public School standards for school readiness [to plan curriculum].

Wendy was introduced to the OWL curriculum when her program was involved in a federal grant aimed at improving children's language and literacy skills.

> When I started working here the classroom I was in part of the Early Reading First Grant and they had been using it. So I received the in-depth training and coaching for two years [during grant]...I just saw how effective that was at supporting this population [English language learners]...and after the grant ended I continued to use the curriculum.

Differentiating Instructional Support

I asked Wendy to expand on the ways in which she differentiates her teaching based upon individual children's interests and needs.

> At this point in the year [spring] especially I have a pretty good grasp of what my children's abilities are, where their skills are at, and what their learning styles are. So when I do a large group activity I know that some of my children aren't getting as much out of it as I might intend...during center time I might invite that child to work with me...and you know really use that vocabulary again and really demonstrate for them in the way that I know will be meaningful for them, and then encourage them to participate as well to gage whether they are grasping what I am demonstrating.

Wendy also offered a specific example of individualization for a child who struggles with self-regulation in her classroom.

> I have a child in my classroom right now who, just based on observation and getting to know that child, I found that he needs to be given choices no matter what we are doing... So we found that in the morning when he walks in he chooses his sink [the children all wash hands when they arrive], in large group he chooses his seating, he chooses between the rocking chair or being right up in front with me...because if he is not given choices...he is not able to access his learning environment.

On the day of my observation Wendy offers this type of individualized teaching strategy to support to several children in the classroom. She quietly allows a child to move closer as she reads a story when the child cannot sit still on an assigned carpet square, she uses picture cards to cue a child's success during a difficult transition and she modifies a matching game for a child struggling with too many available cards to choose from. These differentiated teaching strategies help children to make the most of teaching and learning in their classroom.

Summary: Instructional Support in Wendy's Classroom

Wendy's instructional support, as measured by the CLASS was a 4.88 on the day I observed her. Wendy's scores indicate that she uses effective instructional support strategies, many of which I witnessed during my visit to her classroom where Wendy used significant language modeling and conversation to reinforce children's learning. Instructional support in Wendy's classroom begins with knowing children. She emphasizes the need to know children well so that she can plan for and implement curriculum that is responsive to individual children. Knowing children well helps Wendy provide individual supports including modifications to the environment or to the curriculum plan in response to children's unique needs. Wendy also relies on a published curriculum that has a strong language and literacy base because she believes it to be most effective for the large number of English language learners in her classroom. Perhaps because she has this base curriculum to guide her instructional support strategies, Wendy's interviews were heavily focused on knowing children so that she could tailor that curriculum to optimize opportunities for children's successful learning.

Instructional Support in Beth's Classroom

Instructional support in Beth's classroom includes: a) the organization of the learning environment, b) descriptions of instructional support in the areas of concept development, quality of feedback, and language modeling; c) children's responses to instructional support; and, d) the way in which Beth plans for and differentiates instructional support for children.

Organization of Beth's Classroom

As I entered the building I was greeted by Beth who gave me a tour of the community center, formerly a K-3 school building, that houses the program. She explained that the public school K-3 no longer resides here. All the children currently attending the preschool will ultimately go to other schools outside of this town. In addition to the pre-K program the building houses the town offices, a small gym and the town library. Beth shared her classroom, large motor space and planning rooms with enthusiasm. One entire side of the building is available for the pre-K program, a luxury of space that most early childhood programs do not have. Beth has made good use of the space—setting up what she calls unit boxes by content themes to help bring to life whatever concept she is teaching.

> I love planning for new things and as I have been out to yard-sales and shopping this summer I pick up little things to bring into the classroom, I think "Oh cool we can use this in such and such unit" and I just find that so exciting to bring new things into the classroom to support the lesson plans we create.

Many of the materials Beth uses to support children's learning are developed by her, or her teacher assistant to bring hands-on learning to life in the classroom. It's clear that Beth does not see anything extraordinary about her commitment to purchasing and creating her own materials—for her it is part of the joy of teaching and an innate quality she brings to her professional approach.

Beth's classroom is a vibrant and busy community. Her hands-on approach to instructional support is evident in every corner of the room. On the day of my classroom

observation I arrived early so that I could watch the children enter the classroom and they do so with enthusiasm. The first group came directly off a school bus, while others drifted in over the next half hour with parents and siblings who lingered to talk with the teachers before moving on to their day. Beth moved around the classroom with ease and familiarity, greeting children and parents, asking about siblings, by name. It is clear that families feel comfortable in this room—parents even know the classroom rules and remind children of them—"remember to wash your hands before you go to the activities in the circle area," one mom says. Another mom stopped by with a younger sibling to check on the progress of the tadpoles in the table top pond ecosystem Beth has created for her room. A child says, "I see a leg!" and Beth moves closer to see if indeed the tadpoles have progressed in their life cycle.

I am particularly drawn to this classroom and teacher because it is so unique in the use of science and nature. Beth is so engaging and warm that I am instantly at ease with her. But more than that, for me, this classroom reminds me so much of my own student teaching experience where nature and scientific discovery was embedded into everything in the kindergarten classroom. I realize that this is why this program feels so familiar to me, and I need to keep that in mind as a potential bias as I move into analysis. But still, there is something about Beth and these children, for whom there is so much rich discovery happening in the center of a town that appeared to have so little. The following excerpt from my field journal describes my experience.

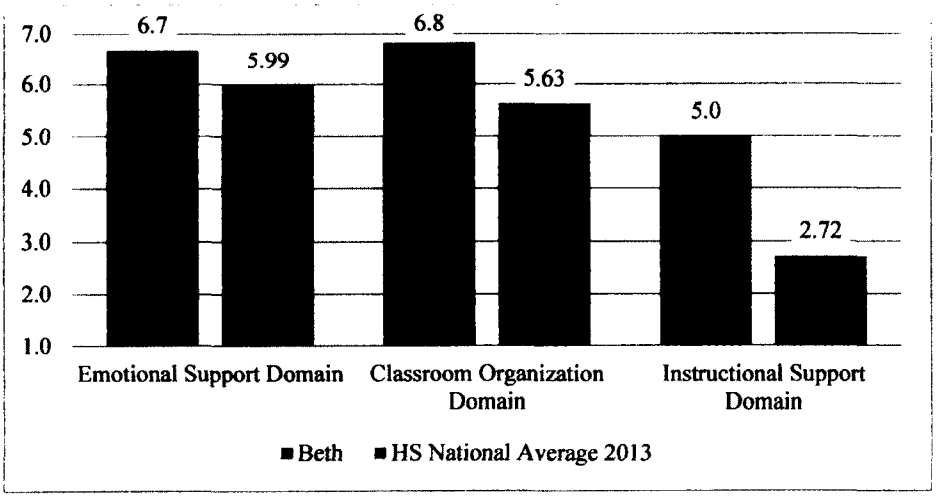
> During the observation I am struck by the sheer enthusiasm of Beth—she is warm without coddling children, creative—with an entire room of themed prop boxes ready to go with materials to support and extend meaningful learning—she loves learning. It is obvious. The ecosystem is a prime example of something she created with her own resources and develops each year with each new group of children. She and the children collect tadpoles, study and support their lifecycle and then release them into a local pond. This is not in a scripted curriculum but rather from her knowledge and understanding of these children and their rural community and culture. Animals, she says, are one of the

most meaningful topics to children—and can become the learning unit—extended and integrated across language, literacy, math, and the arts. The curriculum emerges from real, tangible experiences that pique children's curiosity and sustain their focused attention. And during that focused learning time, Beth introduces and expands concepts for children. It is magical to watch (Researcher field journal, 5/5/2014).

CLASS Instructional Support Dimensions in Beth's Classroom

Given Beth's commitment to engaging children in learning activities that expand concepts it was not surprising that she scored quite high compared to national Head Start averages on the Classroom Assessment and Scoring System I used during my observation of her classroom.

Figure 5.3. Beth's CLASS Scores



Beth's instructional support skills were demonstrated throughout my observation of her classroom.

Concept Development and Quality of Feedback. During morning meeting time, children gathered with her on a rug as she read the next chapter in *Frog and Toad are Friends*. She helped the group reconnect to the story line by asking things like, "What did frog and toad do yesterday?" and "What happened to them?" she introduced the next chapter by saying, "Today frog and toad are going for a swim." She explored background knowledge with open ended

questions such as, "What do you know about frogs?" After the story reading, she reviewed the plot to ensure that concepts about frogs and toads were clear for children. "Do frogs and toads really need bathing suits?" "Why do the other animals want to see toad's bathing suit?" and, "Does anyone have a different idea?" When she used the phrase, "Frog looks puzzled," a child asked what puzzled means and she asked the group if anyone could help explain what puzzled means. When a child offered, "mad" she gently said, "No (pause) I can see why you might think that because frog's face is sort of scrunched up, but puzzled is when you are trying to figure something out in your head; maybe you don't quite understand something yet and you are thinking about it carefully."

Beth uses every activity in the classroom to help children think deeply about things, and frog and toad are the mechanism she chooses on the morning I observe. Her simple back and forth exchanges with children, in a natural and comfortable setting, during a routine that is part of every day in their classroom, takes the story reading to a new level of inquiry and learning for the preschoolers.

Language Modeling. Beth provides feedback and extends children's thinking during the natural conversation that occurs in her classroom throughout the day. Even conversations at meal times are used to reinforce learning. On the day of my visit a child talked about two things on his plate that were the same as those on his friend's, Beth reminded him, "What is another word we have been using to mean two things are the same?" When the child does not immediately respond she prompts him, "It begins with the sound eee." "Oh! He says, I remember. It's 'equal'." These types of back and forth exchanges, and the provision of small hints to help children persist in figuring things out, are all important constructs measure within the instructional support domain of the CLASS.

Beth's use of open-ended questions and connecting concepts in *Frog and Toad* to the real world, "Do frogs and toads really need bathing suits?" are examples of her strategic promotion of concept development through the use of language. The frequent conversations in Beth's room,

between Beth and the children, and among the children themselves work to encourage children's expression of ideas. Beth's use of hands-on exploratory materials also provides children with many opportunities to observe, comment, and ask questions about scientific concepts that are linked to the real world.

Children's Responses to Instructional Support

Beth's approach to instructional support is to embed instruction into a genuinely engaging learning project. Her idea for these projects come from her knowledge of the children and her belief that children learn best when they are engaged in the study of something related to their real life and that emerges from their common interests. Beth explains that she believes that children learn best from this type of project-based approach where teachers and children investigate topics that emerge from children's interest. As the teacher Beth works to extend projects across all of the curriculum areas to deepen and extend learning. Beth confirms her approach by explaining her thinking about embedding curriculum into science activities that occur in this rural Maine community.

> I think you can teach so many of the concepts to children by using things in their environment and that's why we do so much with animals and science things because you can take it across the curriculum.

I asked Beth if children generally come to her classroom with experiences and background knowledge around these concepts.

> Oh probably more than half have never seen tadpoles but before we bring them in we start reading stories fiction and non-fiction there is a lot of good books out—simple books with real pictures and we introduce it that way. And there's lots of times when their at center time doing free play [when] we can go over and talk to someone who is at the tadpoles and answer questions and interact.

Beth works to make sure that units such as the ecosystem are meaningful learning experiences for all of the children from this community, even those that have not yet experienced

a tadpole first hand. Beth's experience has shown her that when children are interested in the topic of study, instructional support is easily embedded within project-related activities. Seeing all children learn about the ecosystem, even those without significant background knowledge, provides her with the self-assurance to approach teaching in this way. She is confident that children will learn through an emergent, hands-on curriculum and as she watches that learning occur, through her observation and one-on-one interaction with children, it reinforces the success of such an approach. Beth's success with embedding instructional supports into project-based learning units works to reinforce her commitment to this instructional support strategy.

Planning for Instructional Support

Beth and her assistant teacher conduct curriculum planning as a team. On the day of my visit she shows me a large room off of the classroom where they store props, organized by theme, prepare materials to augment hands-on learning activities, and discuss children's developmental needs and learning interests. Beth explains that because of the four-day schedule at the pre-K program, planning happens in the setting during the hours that surround the teaching days.

> We have children from 8:30–11:30 we work from 7:00–3:30. We both have afternoon hours and all day Monday free... so [teacher assistant] and I commit Monday to getting ready for the week but sometimes that doesn't work out...[When that happens] we have afternoons during the week to do our planning.

Planning time is sacred to Beth, who emphasizes, "We use every bit of our planning time," so when a staff training or other event interrupts their regular time to work together on lessons for the week she explains that they use Friday afternoon to prep. "We really try to get started on Friday afternoons for the next week we make sure all the materials are ready and all of the centers are covered—ready for Monday."

Beth's educational leader explains that all of the programs within their agency use the Creative Curriculum™ as a framework and Teaching Strategies Gold™ as an ongoing assessment

tool. She explains that the assessment results are connected to the ongoing curriculum but at times they also supplement that approach.

> It is all connected. However we certainly have other supplemental curricula teachers use and in preschool classrooms they may have a tool that the public school uses and so they integrate that—for instance the Houlton Mifflin curriculum might be integrated to enhance language and literacy activities in our curriculum.

Using the Creative Curriculum™ as a framework allows Beth and other teachers in the agency to ensure they offer a range of developmental experiences across the social and academic domains of learning. But Beth's ability to supplement the basic framework with emergent curriculum based upon children's interest—in Beth's case the pond ecosystem and other science activities—really brings learning to a deeper level. These project-based curriculum units have been developed from shared interest between Beth and the children. Together they research and expand concepts related to science but also introduce and use rich and varied vocabulary.

Children also explore data documentation by observing and charting characteristics of frogs, mapping the life cycle process, and thinking critically about the environment in their rural community. Beth's emergent curriculum themes augment the framework her agency uses, and offer a richer learning experience for children, one formed from Beth's own curiosity, research, and creation of classroom materials.

When I asked Beth how she thinks children learn best, her answer illustrates clear roles for both teacher and child. Children explore and actively construct their own learning, and teachers provide the necessary support to help children think deeply and cement concepts in their mind.

> [Children learn] through modeling and seeing things over and over again...through open-ended exploration and independent investigation ...open-ended activities. [My role is] Modeling...even at breakfast every morning I sit with children at the table to model good manners. I am a facilitator, uhm, a guide.

Beth also models at a one-on-one level as she individualizes instruction for children. This ability to differentiate her approaches with children in her classroom is a critical component of the facilitator role she identified as part of her responsibility in children's learning.

Differentiating Instructional Support

Beth believes that being an effective teacher requires truly knowing the child in his or her family context. "When we know the parents...we can be more in tune with the child and the child's needs. You know, if I have information about a family I can use that to my advantage in a classroom." Beth's description of the importance of knowing children and their families allows her to individualize teaching and learning for children. In addition to the relationship-building that affords her information about her children, she also relies on formative assessments that are part of Teaching Strategies Gold™, the assessment tool that accompanies the Creative Curriculum™ framework that her organization uses. Beth explains that by entering observational data collected about children during their school-day activities, she can aggregate and summarize where children are on the Creative Curriculum™ developmental continuum. The program gives her information about individual children and also aggregates information for her entire class which allows her to plan for individual and group learning experiences that will help children progress on the developmental continuum. Beth explains how this process, which she identifies as collecting data through checkpoints, is integrated into her planning process: "We look at all our checkpoints in Teaching Strategies Gold™. They print out the reports—assessment data and I can look at my children, my class and at the organization as a whole."

Beth described an example of several strategies she used to differentiate her instructional support for a child who was identified using checkpoints as one who was struggling with language and literacy skills.

> I have a little girl and she will be five in September and she is going to kindergarten. I have been struggling with her with her alphabet recognition and writing her name. One thing we do is we make cards so when we do an activity and they [children] add their

name—they can also use these to copy their name. For [child's name] I made a name puzzle using foam so she can work on her name by putting the puzzle together. We do sand letters—a tray full of sand so they can trace the letters—I try to make it hands on so that they can touch and feel the concepts. We might cut the letters out in sand paper and do rubbings. I have a word wall and so a child can locate words that start with the same first letter of their name. I do a lot of one-on one—all children love this.

Beth clearly individualized these activities for one child, but also recognized the value in these activities for all children in her classroom. By embedding one-on-one activities within those that are set up in the classroom's learning centers, Beth offers the child who is struggling experiences to practice and hone her skills in activities that are integrated across the classroom environment.

Summary: Instructional Support in Beth's Classroom

Beth's instructional support score (5.0) indicated that she was effectively providing instructional support in her classroom. Observing Beth's classroom provided a window into the types of strategies Beth uses to support children's learning including frequent conversations, language modeling, and back and forth exchanges to promote children's understanding of concepts. Instructional support in Beth's classroom involves hands-on learning activities that are embedded within meaningful projects that are connected to children's lives in a rural Maine community, such as the pond ecosystem project. Because Beth relies on a project-based approach, she emphasizes a need to really get to know the families and the children in her community so that she can plan curriculum that emerges from their interests and needs. Beth then embeds instructional support, including differentiated assistance for children who need additional support, within a project that provokes interest and enthusiasm for their classroom community.

Across the Cases: Instructional Support and the Intentional Teaching Cycle

This section of Chapter Five describes connections between the data collected across the three cases related to instructional support. The reader will recall that the analytical approach

used in this study relies on one outlined by Maxwell (2008) where collected data is first categorized into theoretical and substantive categories such as those described above in the description of instructional support in each teacher's classroom. The second step in the Maxwell's analytical approach is to bring these data back together to identify connections among and between the categories. According to Maxwell (2008) the purpose of this step of analysis is to "connect statements and events within a particular context into a coherent whole" (p. 238). Accordingly, this section of the chapter initiates that reconnection by highlighting relationships between and among data presented in Chapter Five.

Instructional Support: A Balance of Teacher- and Child-Guided Learning

Instructional support in these three teachers' classrooms was delivered through curriculum that balanced teacher- and child-guided learning activities and interactions. These activities and interaction were grounded in children's interest and related to their lives in meaningful ways. Instructional support activities were differentiated for individual children whereby teachers use formative assessments and knowledge of children and families to make curriculum modifications, embed learning activities, and individualize instruction for children. Across all three cases, instructional support involved a balance of teacher and child-guided learning activities and exploration that are designed in response to teachers' knowledge of children's interest and developmental needs. All three teachers articulated the delivery of hands-on exploration by children as critical to both developing background knowledge and expanding upon concepts but each did so in different ways. For Jill this involved finding real artifacts in her community to bring a vague concept (maple sugaring) to life for a child. She researched the process online, learned about the topic herself, and sought out those in her community with real expertise to deepen the learning experience for the child.

For Wendy, the use of the Opening a World of Learning Curriculum™ including strategies like "let's find out about it" to build background knowledge for English language learners with little contextual background was most useful in providing instructional support to

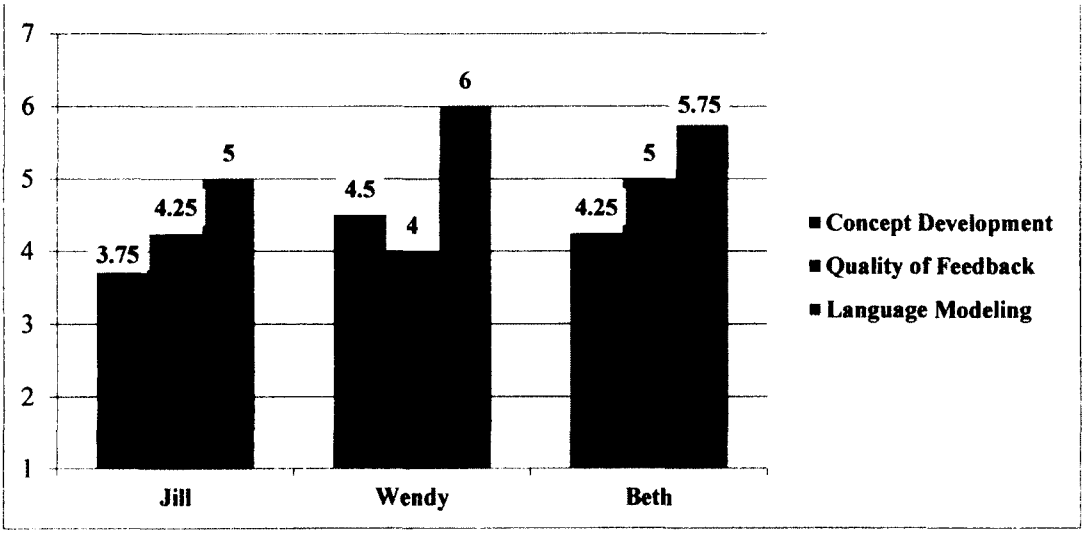
help children develop understanding of concepts and to make the most of learning. Within her classroom she used every learning area to enhance that conceptual understanding including fiction and expository reading materials, categorization games, seed planting and outdoor gardening, and art and dramatic play areas. Children in this classroom were immersed in the content they were studying because Wendy integrated it into every nook of the room.

Finally, Beth's approach to instructional support involved developing unit boxes and thematic materials to support learning about concepts such as the pond ecosystem. Beth also integrated concepts across all of the curriculum areas. Children learned through hands-on exploration, fiction and expository reading materials, dramatic play and math and data activities related to their ecosystem. Beth used group meeting times with children to revisit concepts and map concepts onto real life experiences—all key to concept development.

Differences in Dimensions of Instructional Support

All three teachers identified providing feedback and concept development as the most common strategies they use to provide instructional support for children's learning. Across the cases, teachers and educational leaders made 25 references to instructional support with the most frequently coded nodes within instructional support being concept development (21 references across 12 sources) and quality of feedback (11 references across 7 sources); language modeling was coded 4 times across three sources. It is interesting to note that there was a difference in the way teachers talked about the three dimensions of instructional support and the ways in which their actual classroom practice was scored using the CLASS tool (Figure 5.4).

Figure 5.4. CLASS Scores for Instructional Support Dimensions



During the three interviews teachers most frequently identified strategies they employed to offer instructional support as "providing feedback" and "increasing concept development," yet much of their actual classroom practice was coded under instructional support as language modeling. As defined by the CLASS tool, language modeling occurs when language is repeated and extended, advanced vocabulary is modeled and mapped onto known concepts, and child-teacher and peer-peer conversations are plentiful in the environment. Concept development and quality of feedback involve strategies specific to persisting with children as they struggle to understand a concept and pushing to higher order thinking. Back and forth exchanges result in the child's development of a deeper understanding of a concept. This is a nuanced but important difference. Language is connected to these two dimensions because much of that process of deepening understanding involves language and conversation. But language and conversation in and of themselves do not necessarily result in a child's increased understanding of a concept. It is not surprising that teachers might consider their conversations as deepening concepts because the three dimensions of instructional support are so intertwined in the early childhood-teacher relationship.

Finally, all three teachers explained that the provision of instructional support involves thoughtful planning and reflection about who children are, the families in which they live and grow, and their developmental needs. Perhaps the most interesting commonality across the three cases was the similar approach they all took to providing instructional support, which involved a cycle of observation, reflection, and careful planning that result in intentional teaching. This intentional teaching cycle is introduced here and will be revisited in the findings and discussion highlighted in Chapter Seven.

Intentional Teaching Cycle

Across all three cases, teachers identified a similar process to determine how to provide instructional support to children, although each teacher placed primary emphasis on a different phase of the cycle. Elements of the intentional teaching cycle were coded across both teacher and educational leader interviews (Table 5.1).

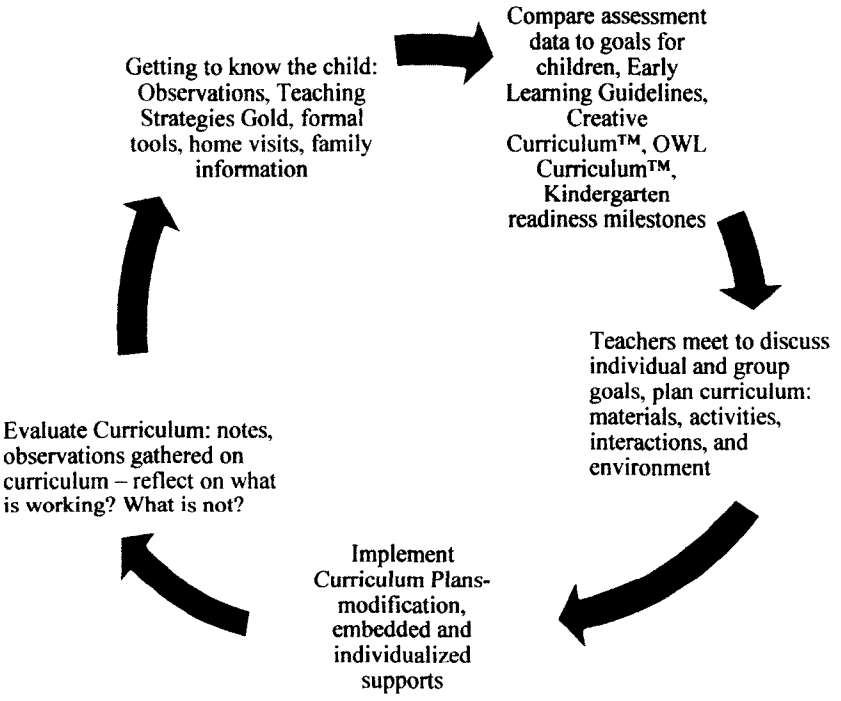
Table 5.1. Coding Matrix for Intentional Teaching Elements

	Observe children	Home visits	Ongoing parent communi cation	Formative assessment data	Team planning meetings	Curriculum Implementa tion	Published Curriculum	Reflect on implement ation
Jill	✓	✓	✓	✓	✓	✓	✓	✓
Wendy	✓	✓	✓	✓	✓	✓	✓	✓
Beth	✓	✓	✓	✓	✓	✓	✓	✓
ED Leader	✓	✓	✓	✓	✓	✓	✓	✓

This process, perhaps labeled differently by all three teachers, consistently included a cycle of activities that involved observation of children, analysis of existing assessment data, and understanding of the child's family that led to genuinely knowing children as individuals. Once children were known in these ways, teachers planned with peers to design learning activities, implement and assess their effectiveness, and then repeat the cycle with the new data they received from the last cycle. Curriculum implementation included making modifications,

embedding learning throughout the day, and individualizing supports to ensure that all children could successfully access learning opportunities. This intentional teaching cycle is presented in Figure 5.5.

Figure 5.5. Intentional Teaching Cycle



This intentional teaching cycle was at the heart of all three teachers' descriptions of instructional support. For Jill, Wendy, and Beth delivery of instructional support starts with first knowing the child well and then moving through and repeating a cycle of reflection. That cycle of reflection on children and on teachers' curriculum implementation allows Jill, Beth, and Wendy to be intentional about the types of learning activities that best support children's learning and development. However, within this common cycle, each teacher chose to place her focus on different phases. For Jill, the primary focus of this cycle was the point at which assessment data were used to ensure intentional teaching. Assessment data were important to Jill, perhaps reinforced by the approach her organization takes to assessment and evaluation because they are

part of a national study. Being part of that study means that she has external evaluators' data about her classroom including child and teacher level data to inform her planning for intentional teaching. These things likely influence her focus on this part of the intentional teaching cycle.

For Wendy, she met with her team to plan based on their use of a scripted curriculum and their knowledge of individual children's developmental needs to modify that curriculum in ways that optimize learning opportunities for children. Wendy's emphasis in the intentional teaching cycle was squarely on curriculum implementation, evaluation and modification so that she could be sure that children were able to fully access the learning environment. It seems logical that this would be Wendy's focus since her classroom had the most diverse group of children. Given this diversity, Wendy has chosen to use a curriculum she knows to be successful in her work with English language learners as a base, and then works to modify that curriculum in response to the wide range of needs and interests across her classroom.

Beth's emphasis in the intentional teaching cycle was on getting to know children and families. Her focus on observing children early in the year, conducting home visits and getting to know families and the communities in which they live was articulated by Beth as a way to ensure meaningful learning to make her job of teaching easier. She emphasized how much harder it would be to effectively teach without this knowledge. Again, this emphasis fits with the type of curriculum Beth employs in her classroom. Her use of a project-based, emergent curriculum approach requires her to know children, families, and the communities in which they live to effectively plan and implement learning activities that emerge from the interests and need so of the children in her classroom.

Common elements of an intentional teaching cycle were articulated across the three cases in this study. Variations in the cases came in the level of emphasis or focus given to different phases of this cycle. These variations where closely connected to each teacher's approach to planning and implementing curriculum for their classroom.

Chapter Summary

Chapter Five presented data about instructional support in the classrooms of Jill, Wendy, and Beth. Data were examined to describe instructional support and to develop an understanding of the process that teachers use to plan for, design, and deliver such support to children. Instructional support for these three teachers involves a cycle of observation, planning and implementation, with emphasis on phases of this cycle differing among the three teachers. Reflection about how children respond to curriculum was used to plan for modifications to learning activities, opportunities to embed learning throughout the day, and individualized teaching strategies to support children's access to learning opportunities.

The description of instructional support across the three classrooms was provided to explore one of the questions that guided this study: "How and to what extent do highly efficacious early career Head Start teachers employ instructional support?" Chapter Six will examine elements of the early childhood teaching environment that influence teaching to provide information about the second question explored in this study: How and in what ways are highly efficacious early career Head Start teachers' beliefs in their ability to provide instructional supports influenced by the environment in which they teach?

CHAPTER SIX

PERSONAL AND ENVIRONMENTAL ELEMENTS THAT INFUENCE TEACHING EFFICACY

This chapter presents data related to a second important construct that frames the study: the environment in which teaching occurs and how this influences a teacher's practice. Data from the participants about what things in the environment influence their belief in their ability to teach effectively are presented to provide information about the research question: "How are highly efficacious early career stage Head Start teachers' beliefs in their ability to provide instructional supports influenced by the structural and process elements of the environment in which they teach?"

This second research question is rooted in Bandura's theory of self-efficacy whereby personal and environmental factors interact to influence human behavior (1997). This "triadic reciprocal causation" as Bandura defines it, is a transactional view of self and society in which personal and environmental characteristics influence one another (1997). In this integrated model "social influences operate through self-processes that provide the actions" (p. 6, 1997).

For Jill, Wendy, and Beth, this means that their belief in their ability to provide instructional support to children in ways that benefit their learning (an internal cognitive process) interacts with environmental characteristics in their work site (external environmental factors) to influence their delivery of instructional support. In an early childhood setting these environmental characteristics include program structure, such as, class size, the ratio of children to teachers, and service intensity [length and number of days, etc.] (Frede,1995) and program processes, what helps teachers respond to individual children (reflective teaching practice, curriculum methods, teacher-child interactions, and close relationships with parents) (Frede,1995). In keeping with Bandura's theory, these environmental factors work to support or challenge Wendy's, Jill's, and Beth's belief in their ability to support learning in their classroom.

Bandura (1997) also asserts that self-efficacy is not a static characteristic, but rather something that can change in response to environmental or personal influences and factors. These include things like an individual's prior experience, perceived self-competence, and many other factors. According to Bandura, the most powerful sources of self-efficacy are "enactive mastery experiences...because they provide the most authentic evidence of whether one can master whatever it takes to succeed" (Bandura, 1997, p.80). Thus understanding how environmental elements work to promote such mastery experiences ultimately sheds light on the types of supports or challenges in the teaching environment that promote or challenge a teacher's self-efficacy because it is from those mastery experiences that such efficacy is built and sustained.

This chapter presents data related to the personal and environmental factors that influence teachers' enactive mastery experiences in the provision of instructional support. For each teacher this presentation begins with personal characteristics of the interviewees such as their approach to learning and their beliefs about teaching. Then data about factors in each teacher's work environment are organized and presented within two categories identified in the research literature to describe typical early childhood programs: 1) program process elements and 2) program structural elements. The chapter ends with a cross-case analysis whereby personal and environmental elements identified across all of the interviews are connected to describe the way in which these elements promote or hinder teachers' mastery experiences in the provision of instructional support. Pulling data together in this way begins to highlight common factors identified by the teachers in this study with regard to the question, "How are highly efficacious early career stage Head Start teachers' beliefs in their ability to provide instructional supports influenced by the structural and process elements of the environment in which they teach?"

Personal and Environmental Elements that Influence Jill's Efficacy

The personal and environmental elements that influence Jill's efficacy include: a) personal attributes, such as maintaining a learning disposition; b) process elements of her teaching environment including relationships and reflective practice; and, c) structural elements

such as physical space in the organization and a lack of specialized supports such as children's mental health services on site.

Personal Attributes

When Jill talked about her belief in her ability to teach effectively she focused a great deal on her ability to learn from mistakes, building up a reservoir of successes to hold onto and modeling this type of self-reflection for the teachers she supervises, "You know you need to be able to say, I just did that totally wrong...I model that for my team...and they appreciate that." This personal attribute, an ability to maintain a learning disposition, even when she is struggling, is part of why Jill feels confident about her teaching. Jill loves to learn. At the time of our interview she had just finished an intensive program of study at the Erikson Institute, a graduate school program geared toward professionals who work with children from birth to age three and their families. Part of Erickson's value statement is that "students acquire skills of reflection in order to develop self-knowledge and explore their own practice" (Erickson, 2015). This approach to learning through reflection was appealing to Jill and despite just finishing this 18 credit hour graduate certificate she was already planning her next course of study.

> I am almost done at Erikson and now I need to plan my next educational endeavor, and my family is like, you just got this degree/certificate why do you want to immediately get another? And it's like, well it's so tied to what I do. It is not like I am taking a math course or a science course. It is all related to what I do every day and immediately applicable. In Erikson we learned about reflective supervision and this is my second year as a supervisor and it really helps me with work—I can apply what I am learning.

Part of what makes learning so enjoyable for Jill is that it is immediately applicable to her work life, giving her skills to practice and hone on the job; however, it is Jill's personal disposition toward self-reflection and continuous improvement that makes her a life-long learner. The fact that she found a program of study that reinforced her reflective stance enhanced her

learning. "I really think the reflective practice piece is so important...Erikson is really big on this ability to be reflective and to look at situations from different perspectives...I think that has really helped my teaching."

The experiences Jill has in her actual practice, including successes in her classroom work to solidify the skills she learns as part of her professional development. During our interviews she described her commitment to reflecting on what she has learned, what she tries, and most importantly what works with children to increase her confidence and skill as a teacher. In this way, Jill uses her learning to improve her practice; her belief in her practice is solidified when Jill's application of learning in the classroom is successful with children. This combination of Jill's personal disposition toward learning, and the external factor of children's positive response to the learning she puts into practice in the classroom acts as a mastery experience for Jill. According to Bandura (1997) such success in the classroom works to solidify Jill's confidence in the teaching practice and the likelihood that she will continue that practice.

Jill's personal commitment to learning also extends across home and school. For Jill learning is just as likely to take place when she is at a professional development event as when she is on a family outing with her children.

> I take classes, I love to take classes and always have. I attend trainings and pursue my own outside interests. I have children myself so there are times that I do things with my own children that benefit my classroom children because I am learning when we go on outings...I just built a house through Habitat for Humanity and I had a child in my classroom who was so interested, and so I brought in pictures and like samples of the vinyl siding. and I brought in a sample of the flooring and he used it in the block area...Walking around my house I think oh, so and so would love this (pause) home and school just overlap for me.

This overlap between home and school came up several times in our conversations and for Jill it is clearly part of being an effective teacher.

> Some people feel like I am going to be at work, but then I leave and am going to be with my family, well I can be with my family and still think about what I am going to do tomorrow for my lesson plan or I can be grocery shopping and think, oh I am going to pick that up because it will work tomorrow in an activity I have planned.

Jill described that teaching is something that embodies who she is both at work and in her personal life. That passion for learning is part of everything she does and it helps to feed her self-efficacy as she combines her personal approach to learning with application in the classroom that elicits responses from children and families. When those responses are positive, Jill considers her learning to be a success. "I am pretty confident because I read how children or families react...the positive helps build the confidence and the negative helps keep it in check and provides a learning experience."

Program Process Elements

Data related to program process elements such as relationships with colleagues and educational leaders emerged in my conversations with Jill about things that influence her ability to provide instructional support to children.

Relationships. Jill's relationships, including those with her team teachers and her supervisor, who is also the educational leader that provides her feedback and support on her teaching, were identified as important supports to her ability to provide instructional support.

My team...you know we tag team and I ask for help. I know that I don't have all the answers and I'm not perfect and I am not expected to be perfect so I ask for help...all [team members] have different skills and relationships with children...If I am really frustrated that is where I go—my peers and [educational leader]—anyone is willing to help here.

Jill's relationship with her supervisor/educational leader is reinforced by her supervisor's connection to her classroom practice. Jill's supervisor's office is located within the same area of the building as the classrooms of those she supervises. This close proximity is actually a structural element of Jill's teaching environment that works to support a process element—ongoing feedback from her supervisor. The location of the supervisor's office is important because in this program, Jill's immediate supervisor is also the person who does her CLASS observations and is regularly in and out of her classroom. Jill's supervisor explained how she provides regular feedback on Jill's teaching, describing a relationship intended to mentor and support Jill's professional growth. Jill supervisor said,

> We meet weekly and I go into the classroom and see her in action. We talk about curriculum and children and we do observations together on the team...some of the things we talk about are things we both see—like crisscross applesauce, [the traditional cross-legged seated position required of children during early childhood circle time] do children really learn better if they sit like that? So we talk about that.

Reflective Practice. Jill explains that it is the self-reflection involved in the feedback loops with her supervisor that is most helpful to her.

> We do a lot of self-reflection and reflective practice with the observation helps. [Educational leader] will say, "So here is how you handled it, and how did you think it went? What might you do differently?" [I know that] It's okay to make a mistake, and then work on it to be better next time. So it is supportive and you feel supported.

Jill's educational leader describes her approach to this type of ongoing feedback and reflective supervision when I asked her how she manages to provide this support for the teachers she supervises. The supervisor said,

> It's different for every teacher—when new teachers start... [I try to] at least figure out who they are and where they are coming from. That is a lot of the work in the beginning because if you don't have that relationship with someone they are not going to be able to

move forward or gain any skills. So we have to find those things out – are you ok with me being in the classroom? Are you ok with your team? Knowing who the teams are…I approach it with "How can we figure this out together?" versus, "I have all the answers."

Jill's educational leader explains that this approach to supervision and staff development is one the organization supports for all teachers, "We [supervisors] look at individual staff and what their goals are to support them or to look at behaviors of children to provide additional support for teachers' concerns." Jill's comments confirmed this.

> They [the organization] are really supportive, they are invested in you as a person—you are not a number…We all have a professional development plan and it's catered to what we want to do…I want to have a master's degree by the time I am 40—those are my personal goals but the organization supports me—like they actually approached me about the Erickson Institute knowing I wanted to do something more…everyone has their own path, created by us but supported by the organization.

Relationships with her colleagues and her supervisor support Jill's ability to be reflective about her practice and continue to improve her instructional support skills.

Program Structural Elements

Information about program structural elements and the way they influence Jill's ability to provide instructional support also emerged during interview with Jill and onsite visits to her program.

Physical Space. The physical layout of Jill's school offers many places for teachers to work together, which helps to support relationship-building among teachers. Inside the preschool programming area is a very large (approximately 20 feet x 20 feet) teacher resource room fully equipped with computers, printers, laminators, copiers and lined with shelves of books and resources. Offices circle the outside of the teacher resource room and serve as drop-in quiet spaces for staff to think, plan, talk and reflect on their teaching. In the center of the resource room

are tables with four-six chairs around them for teachers to work together or alone. When I entered the room with Jill there were two teachers quietly working at the tables.

I asked Jill about the room and she explained that this is teacher space—where she and others can reflect, plan, read, write, use computers, converse, eat, play, laugh and be. The space invites collaboration, and by the time we are done with Jill's first interview, there is a new group of teachers planning for the upcoming art show. The teacher resource room is kept locked, it is as if it is a sacred space for teachers —and Jill and the others appreciate and use the space for working with and supporting one another. This theme is repeated in Jill's interview where she explains that one of her key resources is her peers.

> We have a digital bulletin board where we can reach out to other teachers for ideas or help with lesson planning and one time I asked for recyclables for a project I was doing with the kids and you would not believe how much trash was delivered in 24 hours!

By devoting so much space to teachers the organization makes a statement about its commitment to promoting relationships among teachers and to providing space for personal and group reflection. This approach to collaborative learning infuses the building. Even the hallways of the school provide cozy nooks and small inviting play spaces for children and families to gather on their way to and from classrooms. The combination of all of these elements under one roof results in an environment that values those who teach and learn here, and it inspires relationships among them.

Lack of Specialized Supports on Site. Structural features of the school can also create challenges for Jill. One of Jill's current struggles related to structural elements of her teaching environment is the lack of certain kinds of specialized supports, such as mental health professionals, for children in this organization. For Jill, the absence of this support means that she must serve dual roles, providing direct support to children in the classroom while also acting as a case manager to ensure that children receive the additional supports they need outside of her classroom.

> I think that the biggest thing is that if a family or child needs extra supports—like mental health is the biggest one—if we had someone on site to help in a crisis situation for example. We case manage, but I think if we had more mental health support all around it would be helpful (pause) because by the time you do a referral and get someone to observe you're six months into the process and have already lost so much time with learning.

For Jill, losing this time with children influences her ability to be successful at providing instructional support because she feels like much of her time is spent trying to facilitate children receiving services that will help them be successful in her classroom. Case management pulls her time away from all children, but Jill's emphasis our conversations was about the learning time lost for children when they cannot successfully access all that the classroom, and her teaching, have to offer. Jill explains that when children have to wait to receive specialized supports, such as mental health services, they need to manage their behavior or to help regulate their emotions their learning is also put on hold. This is challenging for Jill who understand that when children's social and emotional needs are not addressed it is much harder for them to take full advantage of learning opportunities.

Summary: Personal and Environmental Elements that Influence Jill's Efficacy

Jill described both process and structural elements of her teaching environment that act in concert with her personal characteristics to influence her ability to be an effective teacher. Jill described the ways in which she works to identify what children need, gathers resources across her home and school lives to respond, and relies on relationships with children and adults in her life to tailor and refine her teaching. Jill indicates that is her reflective stance and openness to learning that leads her to seek out the resources she needs and to determine courses of action—whether coursework, study, or reflection with a trusted supervisor—that will fortify her with the skills she needs to meet the diverse social and academic needs of the children in her classroom.

Personal and Environmental Elements that Influence Wendy's Efficacy

The personal and environmental elements that influence Wendy's efficacy include: a) personal attributes, such as maintaining a commitment to ongoing learning; b) process elements of her teaching environment including professional development, relationships with colleagues, and reflective practice; and, c) structural elements such as the length of school day and a lack of specialized supports such as children's mental health services on site.

Personal Attributes

Wendy described herself as a lifelong learner and included that disposition for ongoing learning and personal improvement as part of her description of an effective teacher: "I think every teacher, should be a lifelong learner, so I think that every single year and every single day, I learn something new." She described learning activities such as her continued coursework to achieve her early childhood education teaching certificate and her commitment to achieving a master's degree in language and literacy as key activities that have helped her to hone her instructional support skills.

For Wendy, her own learning goes hand in hand with being an effective teacher. She actively seeks out professional development resources and reflects upon how valuable those have been for her. Wendy's personal approach to improving her teaching skills was helpful to her as she managed working with an ELL population that she had no experience with in her teaching career. In the following interview excerpt Wendy talks about her involvement in an Early Reading First grant where she was first introduced to the Opening a World of Learning™ (OWL) curriculum and strategies for working with children at risk.

> I feel like my training in OWL and ERF really built my confidence on this...I feel pretty confident. Before OWL/ERF, and luckily it came early, I was not focused on interactions with children and using all areas of instructional support that are in the CLASS. I feel like I was more of a stand-back and observe type of teacher rather than a jump in and support children's concept development, and now I really understand that there are multiple

> opportunities to do that no matter where we are—whether we are waiting in line or at the lunch table, on playground or bus line I am always thinking about how I can build that instruction in.

In addition to learning through her educational coursework, Wendy's experience on an Early Reading First grant, where she received coaching supports to implement the skills learned in her ongoing professional development, confirmed her commitment to ongoing learning and personal improvement when she saw the difference her newly acquired teaching strategies made for the children in her classroom.

The importance of ongoing learning to Wendy was underscored during our last conversation as part of this study. When I asked Wendy if she had anything else she felt was important for me to know about what makes her an effective teacher, her response affirmed her commitment to learning.

> Just that I continue to change and I continue to have the mindset that I am never going to be perfect and you have to be a lifelong learner...I think that is so important for any educator, but especially for early childhood teachers, because our world is changing and you just constantly have to be open to that and be open to learning and be willing to learn and to adapt your practices in response.

Although Wendy had shared a similar comment about her belief in taking an "open to learning" approach to her teaching in an earlier conversation we'd had, the fact that she chose to reiterate it as the last comment she offered on her teaching had an impact on me. The phrase lifelong learner is used so often that it has become a catchphrase to describe a generic approach to continuous education. For Wendy, however, it is more than educational jargon; it is her approach to teaching—one that demands that she continue to learn alongside the children she educates because, just as she is constantly changing, so are the children in her program. Wendy's statement implies that as a teacher she expects to change in response to children. Moreover, it demonstrates Wendy's belief that children should not be expected to change their own approach to learning

style to fit Wendy's, or any teacher's, style of teaching. Wendy clearly believes that the burden of continued growth as a teacher, including learning new instructional strategies in response to the changing demographics and specific needs of the children who enter her classroom, falls squarely on her shoulders.

Program Process Elements

Information about program process elements like professional development, relationships and reflective practice that influence Wendy's ability to provide instructional supports emerged from my interviews with Wendy.

Professional Development. One of the program process elements that Wendy described as supporting her teaching was professional development. Although professional development is closely connected to Wendy's personal disposition toward ongoing learning, the fact that her organization makes available and supports Wendy's participation in such learning, is inevitably a process element supported by the program she works in. Her organization is committed to providing ongoing professional development for the teachers in the agency. They do this with internal supports, such as the coaching and mentoring initiative Wendy is involved in, but also by reaching out for grant or other opportunities to partner with members of the community to bring new learning opportunities to the teachers in their program. For instance, the Early Reading First grant that Wendy talked about during our interviews was a grant that allowed Wendy's agency to partner with a local university to bring training, observation and coaching to their classrooms. This required a large commitment from the program to open their doors and let external evaluators and researchers, along with professional development consultants into their classrooms. It involved the organization supporting and paying for release time for teachers, and committing to increased compensation for each year those teachers remained in the grant. The grant also required the organization to bring families, teachers and agency staff on board to examine and improve their organizational practices and educational curriculum. This openness to

learning, on the part of the organization, is programmatic process element that supported Wendy's ability to grow as a teacher.

With each interview Wendy became a little more candid about the transformation that occurred in her teaching as a result of her experience with the intensive professional development she received through that Early Reading First Grant. She talked at length about the experience and her regret about her inability to teach children most effectively before she had an opportunity to learn and enhance her teaching. " I don't feel like you know when I think about my first class—I feel like I treated my first students fine [pause] but I always think that I wish I had the knowledge I have now, then because [pause]." I prompted her with the simple question "Because? I wish I had the knowledge I have now because?"

> Because I could have done so much more for them (pause) particularly in the area of instructional support... I have always found that areas like emotional climate and positive relationships with children have always been part of my teaching—I think I do those pretty naturally—but those instructional support areas now are completely different.

Wendy's experience in seeing the direct benefits to children that came from her application of instructional support strategies she learned as a part of her experiences on the Early Reading First project had a powerful impact on her teaching and on her self-efficacy. Wendy's commitment to adopting these strategies in an ongoing way, embedding them in her teaching well beyond the period of the project, resulted from her witnessing the positive impact these strategies had on children. Her ability to see that impact on children reinforced her belief in her teaching in ways that would benefit this ELL population, and that in providing that teaching, children would benefit. The power of that experience changed Wendy as a teacher, and thus changed the experiences of children in her classroom.

Relationships. When I asked Wendy to describe other things, aside from professional development, that support her ability to provide instructional support, she talked about the support of her collegial relationships and her current experiences as a coach/mentor. Wendy

emphasized these relationships with her teaching team, including a teaching assistant and other members of the organization, as important supports for her ability to teach effectively. "My assistant teacher—she is incredible...we work great as a team so that really helps...and I feel that the administration and the people I work with are really supportive and really helpful."

Wendy also talked about the benefits of this team in supporting her when she has concerns about a child or is struggling to determine a specific teaching strategy or approach.

> That's one great thing about working here...I have endless resources for anything you would imagine. So for example...I am thinking of a child in our program that has some really significant attachment issues from when he was younger and this was kind of a new issue for me so I went to talk to [name] who is a play therapist in our building and she was really wonderful she gave me lots of resources, gave me a book to read, offered me information about a conference I could attend, which I ended up going to, to come up with strategies to work with that child.

Wendy's relationship with the people in her organization is a source of support to her as she works through challenges, such as supporting a child with an attachment disorder. Although Wendy felt unsure of her knowledge and skill in this area, she was able to rely on her organization and a colleague to buoy her confidence and help her determine strategies that would work in her classroom.

Reflective Practice. Wendy's role in the program extends beyond her classroom teaching. When her program applied for and received a grant to start a coaching and mentoring program, Wendy was selected with one other teacher to fulfill the role of coach/mentor. Wendy's work as a coach involves observing her mentees using the CLASS observation tool, providing feedback, and doing joint planning, based on shared reflection about the observation, with her mentees. Although Wendy's primary purpose in this process is to support her peer's learning, she identifies opportunities for her own development as well, "Being a mentor this year has been really great

because even as a mentor I am out there looking at other teachers' classrooms and bringing [ideas] back to my classroom—it's really great."

In addition to reflecting upon and learning from these one-one-one exchanges with peers, Wendy relies on the larger group meetings she facilitates with other teachers in the organization as part of their coaching/mentoring program to extend her own professional growth.

> We also have started doing peer meetings...and these are great opportunities to talk with my peers and we bring different issues with children to those meetings to brainstorm different ideas. I feel really fortunate that I am not alone and I know there is always someone I can go to if I need support.

Wendy described her use of reflection with peers in her role both as a mentor and as an ongoing learner to improve her teaching abilities.

Program Structural Elements

For Wendy some of the program's structural elements challenge her ability to provide instructional support. These structural elements included the limited hours in the school day and the ratio of teachers to children that hinder her ability to provide effective instructional strategies.

Length of School Day. Wendy noted the length of the school day as something that challenges her ability to provide instructional support.

> A challenge definitely, I would say, is the short school day because although I try to...get the time to interact with the children...sometimes I do not have the time to get to every child. And the other thing I would say is that we have 18 children and just two teachers in the classroom most of the time. We do have an aide that we share among our three pre-K classroom but for the vast majority of the day it is just the two of us and that makes it challenging to give every child the time they need individually.

Supports for Children with Behavioral Challenges. Wendy added that currently she is struggling with children who are placed in her classroom temporarily as they wait to transition to special purpose programs for children with behavioral issues. This impacts her ability to provide

one-on-one instructional support to others in the group because they consistently need the support of one of the teachers to function in her classroom.

> Right now I have two children in my classroom that are requiring one-on-one support. One is in a special purpose room for part of the week and another who is probably moving to full time in a special purpose program—he is in the process of transitioning—so having those children without additional support in the classroom kind of takes one of us out of the mix.

Despite this revelation by Wendy, it is hard to even identify these children during my observation. The team work and engaging curriculum offered during my visit keeps children focused and on task all morning. Wendy's design of an environment that maximizes individual and small group learning opportunities serves as a third teacher for her on the day I observe. Wendy identified that her careful planning, knowledge of the children in her classroom, and her commitment to ensuring children receive one-on-one support is all part of her overall approach to teaching. These skills combine to reinforce her ability to meet the needs of all of the children in her classroom, even those that need one-on-one supports within a group setting.

Summary: Personal and Environmental Elements that Influence Wendy's Efficacy

During my interviews with Wendy she revealed her own personal approach to learning and improving her teaching skills as something that helps her continue to be an effective teacher. Wendy also talked briefly about structural components of the program that challenge her ability to provide instructional supports including a short school day and the need to provide one-on-one supports within a group setting for children with special mental or behavioral health needs. In addition, Wendy shared her opinions about the things in her work environment that support her ability to provide instructional supports for children. These included her relationships with teachers and other colleagues, the opportunities she has for peer learning through the program's mentoring initiative, and the overall support she receives from the agency for her own professional development and ongoing reflective practice. Finally, children's positive responses

to Wendy's instructional strategies acted to boost her confidence in her ability to teach in ways that are effective for the children in her program.

Personal and Environmental Elements that Influence Beth's Efficacy

The personal and environmental elements that influence Beth's efficacy include: a) personal attributes, such as a commitment to learning that transcends her home and school environments; b) process elements of her teaching environment including relationships and reflective practice; and, c) structural elements such as length of school day and transportation of children.

Personal Attributes

Throughout our three conversations, Beth talked a bit about the importance of her own learning—first through her pursuit of Maine's 081 early childhood teaching certification and more recently through her participation in training and in-service days offered by her employer—but as our relationship grew over the three interviews it became clear that Beth's learning stretched far beyond traditional professional development.

For Beth, learning is an approach to life. Everything Beth does, whether reading in her leisure time, shopping with a friend, or researching something she is interested in on the internet, she relates to her classroom by regularly asking herself, "How could I use this with the children?" This is a theme that ran through our conversations together and that I labeled as "overlap of home and school," a phrase that barely does it justice but seemed to fit the data as it emerged. Beth described an example of this intersection of home and school when she described a project about farms that she and her assistant teacher developed over the summer between our second and third interview.

> At the end of last year we were talking about farms and we just get real excited and you know she's [Beth's assistant teacher] bringing in all her farm stuff from home and I'm looking up stuff on line and getting all excited—she had her husband build us this huge

big barn to play with in the block area it was great...it has rafters in it, hay and farm animals.

Beth's approach to learning involves building up her reservoir of learning activities to embed in the classroom, whether that means enlisting help from outside of the classroom or conducting her own research and committing her own resources to a project for her classroom. "I'm constantly on the computer...looking for ideas and activities...I did that all summer...I see something and think oh wouldn't that be great for school and I write it down to remember it." Beth also uses her own time in the evenings to create classroom materials to augment school day learning activities. She creates hands on materials to add to the classroom's learning unit boxes. We make a lot of things—like I brought home coloring to do tonight because I am making a flannel board three little pigs story and I want to have it ready for tomorrow. Right now our work room is a big mess because we are sorting materials by theme boxes.

On another occasion, Beth lobbied for external resources to pair with her own materials to develop a pond ecosystem for the children.

> Every year we do a big unit on pond study and frogs. We bring in tadpoles and set up one of our tables with a big giant tub and fill with dirt and we make an indoor pond environment with live plants and water. We put tadpoles in it and we have a stream in the back of the school we go to see and catch frogs. Last year I went to Home Depot and asked if they wanted to donate some grow kits and a large cement pond liner and they were happy to donate...sometimes I use the town newsletter to put out needs for us and people respond.

Probably the biggest way in which home and school overlap for Beth is in her commitment to ensuring that home and school overlap for children as well. Perhaps it is because Beth came to the early childhood teaching role later in life, when she already had her own children, that she respects families as part of the teaching team.

> My youngest son was in kindergarten when I started going to college for teaching and there were problems with his kindergarten teacher. She talked down to me and she was, you know, not much older than my oldest son and I didn't like that...so I always try to...talk to them like they are a real person...Like when you have to have to talk with a family about a developmental delay or concern, you can't throw a lot of fancy terms around you can't talk down to them.

Beth sees the relationships she has with families as a critical component to getting to know the children to inform her instructional approach and individualization of learning for children.

> It's just so important to get to know your children—I started taking observations on the very first day of school this year. You just have to be able to have conversation with families to get to know the children—it's really helpful you just have to build those relationships with the families and the community I think.

Program Process Elements

Beth's ability to form relationships with families is one of the places she builds her self-efficacy around teaching. "If I have information about a family I can use that to my advantage in a classroom. When I did not know anything about the families it was harder to individualize for children and know how to work with them." Getting to know families and understand the child's home environments includes program process elements like home visits to families, daily conversations at school or by email and offering activities for families in the evenings such as opening the library in the community center and inviting families in for social and literacy activities.

Getting to know families on a deeper level means that sometimes Beth is privy to difficult information about families; but Beth sees even these challenging relations as part of the role of teacher.

> We had a child this year who had an infant brother die this summer so you know if we see that child getting sad or something we can react to that, we know what happened, we were at a home visit with that family two months after it happened and we know the parents. We can be more in tune with the child and the child's needs. And I always individualize my instruction for the child anyway, but this is just even more information and knowledge to help support and individualize.

For Beth knowing the children, families, and the communities in which they live is an important tool that builds her confidence in her ability to support children's learning. Beth's program processes support teachers to develop their knowledge of families and to grow their relationships with a child's parents, by supporting release time for home visits, operating the pre-K classroom within a community center with other co-located family supports, and ensuring that parents feel welcomed in the classroom spaces. These program process elements work in combination with Beth's personal belief in the value of getting to know families to ensure that Beth can use this knowledge to strengthen her instructional approaches with individual children.

Relationships. Throughout our conversations Beth consistently uses the term "we" to describe her teaching strategies. Although it is clear that much of the instructional planning is initiated by Beth, she is quick to share credit for the approach with her assistant teacher. Beth described her relationship with her co-teacher as strong because "We just have so much in common." She explained that she and her co-teacher share similar interests in everything from books they read to the types of things they like to do in their personal lives. "You know yard-saling and reading books, we are always talking about what we read, or bought during a shopping trip that we can use in the classroom."

Beth and her co-teacher also worked together (and enlisted their spouses) to develop the farming unit they used to support children's learning in the classroom. The ability to get along and work with her co-teacher was described as something that was important to Beth, and on the day I visited the classroom the two worked as an integral team with one picking up a conversation

with a child while another attended to a newly arriving parent, all without verbal communication. In addition to her assistant teacher, Beth feels supported by others in the agency as well. "People are always willing to help you out. We don't have mentors per se but if you need help all you have to do is ask and you've got it."

Beth also clearly relies on both her direct supervisor and the educational leader at the center to provide her with support for her teaching. When I asked her who she relies on when she is struggling she responded without hesitation, "I call my direct supervisor—but she is not too proud to say I don't know and if it is something about curriculum I know who to call [name of educational leader]. The organization is great about that—any questions I can ask anyone." Beth's supervisor confirmed this relationship in my interview with her when she outlined the process of observation and feedback.

> I do observations in every classroom early in the year and then provide a follow-up summary report of the CLASS observation...After they are observed I meet with them and review what happened during the observation and point out the strengths and then we establish one goal. In Beth's case, the goal was around the back and forth exchanges and extending [conversation]. So that happens on a yearly basis and we try to get into the classrooms as early in the year as possible...We feel like it really does need to be done in a timely way. We can't go in and talk about something that happened a world ago and really not related to what is happening currently for them and so we really try to be responsive not necessarily immediate feedback but we do try for a very quick turn-around time and that's our goal and for the most part we've met it.

This feedback from Beth's supervisor was mentioned during my interview with Beth about what things help to support her increased ability in the area of instructional support. She talked about the goals she and her supervisor set about extending conversations to increase the back and forth exchange of information. This feedback prompted Beth to set a goal for herself "I am trying for four to five back and forth's in a conversation," to extend her time talking through concepts with

children. But it is the response from children that caused Beth to see the real value of this approach. "I just know that the more time I spend in that conversation and the more we go back and forth the more a child will understand and remember the concepts." Beth sees the value of this approach as she works with children one-on-one to reinforce concepts. Seeing the success of this approach has reinforced Beth's belief that her use of this strategy is beneficial to children and that she can be effective at providing these types of supports.

The third aspect of relationships that acts as a support to Beth's teaching is her relationship with families. During all three of our interviews Beth referenced her relationship with families as a critical factor in her ability to teach in ways that are effective for the children in her classroom. In fact, Beth described her reliance upon the relationships she forms with families to improve her skills as a teacher. Whether talking about the need to get to know families, "You just have to be able to have conversation with families to get to know the children—it's really helpful—you just have to build those relationships with the families," or demonstrating this commitment to families in the way she creates a welcoming environment to parents during drop off and pick up times, Beth knows that relationships with families is central to her ability to teach effectively.

Reflective Practice. Beth's reflective practice occurs as she uses feedback from her educational leader to improve her instructional skills. Beth confirmed that this type of reflection, as a result of feedback from her educational leader, is valuable as she uses it to build her skills and confidence in the area of instructional support.

> This last time when [educational leader] observed me at the beginning of the year...she expressed an area I was weak in from the data...I have tried to take that advice and you know have that more in my classroom...giving more feedback and using more open-ended questions and exchanges. Then doing one-on-one activities and trying to get them [children] to ask questions and build language and ask questions. So that is something I

have worked on since she gave me that feedback. I think I am more conscious of it all the time now and it has pushed me to improve my skills here.

The organization also makes an effort to bring teachers together by their role with others in the organization for team discussion and reflection. Beth explained this process during our first interview.

> We also have supervision meetings where we get together with family service coordinators to talk about issues and brainstorm and network to get supports. A teacher with a three year old was really struggling to help the child identify colors. So in our supervision meeting I suggested to her that maybe he is color blind and this turned out to be the case. We have so many supports—nutritionist, nurse, etc. in our organization.

In addition to reflecting with her co-teacher during planning times and with her educational leader in regard to her teaching practices, Beth uses self-reflection to plan her teaching strategies.

> I read a lot of the NAEYC literature, you know books, articles and the monthly journal...I read a lot of things that relate to my teaching. In fact I have done a lot of that this summer and have used that reading to think about what I want to do in the classroom next year. I have already started my lesson plans for August.

Beth uses reflection, on her own, with her co-teacher, and as part of peer meetings to think about and plan for her teaching. She relies on her supervisor's feedback with the use of the CLASS observation tool to reflect upon her instructional support strategies and to set and meet goals for her improved skills in this area.

Program Structural Elements

Similar to Wendy, Beth identified programmatic structural issues as the biggest challenges to her effective teaching.

Length of School Day. Like Wendy, Beth struggles with the short day. "One thing I find challenging is that I would like a longer day with the children; and now we are only four days too." Beth explained that the short days mean that she has less time to bring children together in

circle times where she can set the stage for their independent exploration and activity by providing background knowledge and prompting children to think through how they will use materials in the classroom to explore concepts and solidify their thinking.

Transportation of Children. A unique challenge that Beth identified was bussing. She explains that bussing children to and from the program presents a challenge to parent connection and communication.

> I do think the situation where they have bussing ... is challenging. Only two children ride the bus in the morning but we interact with those parents at pick up and home visits...you don't get to see them as much if they are bussed both ways.

Both challenges identified by Beth are related to the way in which public school settings do not necessarily mirror a traditional child care setting. In a typical child care setting, such as Jill's Head Start/child care/pre-K combination, parents drop off in the morning and pick up in the evening, which provides consistent opportunities for teachers to connect with families. Beth indicated that she overcomes these challenges through her focused parent communication during pick up time, as well as her use of home visits to form relationships that help her know the children and families in her program.

Summary: Personal and Environmental Elements that Influence Beth's Efficacy

Structural aspects of the program including the length of school day, and some limitations to parent communication as a result of bussing children to and from the program, work as challenges to Beth's delivery of instructional support. Despite the challenges presented by these structural elements, Beth described process elements of her work environment that work to support her relationships with co-workers, her supervisor, families in the program, and children. These relationships support her ability to develop project units, provide engaging learning materials, and to tailor her teaching supports to the needs of individual children. The combination of Beth's personal approach to learning—one that overlaps home and school—along with her program's support for building relationships, work in concert to support Beth's teaching.

Across the Cases: Mastery Experiences

This chapter ends with a summary of data across the three cases to describe the personal and environmental factors that support or hinder these teachers' ability to provide instructional support for children. Analysis of these data revealed the ways in which elements of the teaching environment promote teachers' ability to successfully provide instructional support and thus have the types of enactive mastery experiences that Bandura highlights as critical to building self-efficacy. Data also revealed the ways in which environments challenge teachers' ability to experience success with their instructional support of children.

Evidence of Mastery for Teachers: Benefits for Children

For Jill, Wendy, and Beth, seeing the positive effects of their teaching skills is a powerful experience that builds their self-efficacy. Watching children respond to instructional support and other classroom activity not only guides curriculum and intentional teaching for these teachers, it also fuels their commitment to continue with similar strategies. For Wendy, it was her work with a new curriculum and a more teacher-directed approach to instruction that led her to adopt new strategies to work with children. When she saw the effect of those strategies for children's school readiness it solidified Wendy's self-efficacy around her use of instructional support strategies.

Jill also builds her efficacy around instructional support through her classroom successes. She described a very specific instance of doubting a particular approach with a handwriting curriculum about which she was unsure but then embracing it with confidence once she saw children's responses. Jill remains committed to ensuring that children are active explorers who enjoy play and learning, but she is also more confident about embracing a structured approach to learning activities when she sees that children enjoy it and benefit from the experience it provides them. Finally, Beth's approach to curriculum planning and the development of project-based units comes from her successful experiences working with children to determine their interest in scientific or other phenomena in their rural community. Beth's self-efficacy in the provision of

instructional support through these project-based units resulted from seeing children with little or no background knowledge in some content areas develop deep understanding through her hands-on approach to integrating a project of interest across curriculum areas.

Each teacher described these types of teaching and learning moments, which Bandura would consider self-mastery experiences that led to their embracing a particular approach to instructional support. Participant's powerful phrases such as, "Because I saw what a difference it made for children, I am committed to continuing with it," "I am pretty confident because I read how children or families react or don't react and that builds [my] confidence or cuts it down," and "[I am committed to providing more direct instruction] because...I have seen the effectiveness of the approach with children," speak to the influence that children's successful learning ultimately has on teachers' confidence and efficacy.

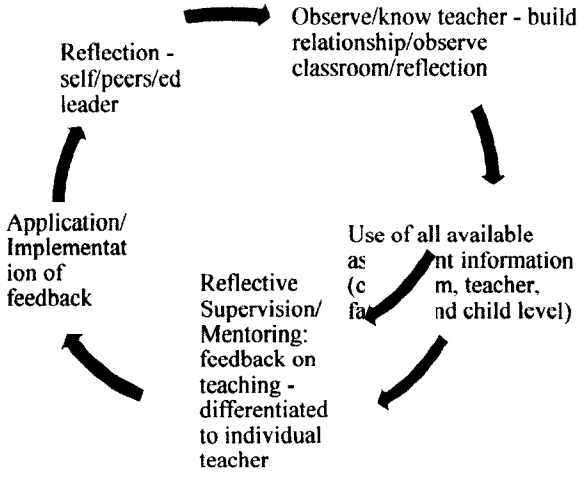
Promoting Mastery in Instructional Support

Elements that influenced Jill's, Wendy's, and Beth's ability to successfully provide instructional support included: 1) relationships with co-workers and families that promoted reflective practice; and, 2) their own professional development and ongoing learning.

Relationships that Help Teachers Reflect. All three teachers identified relationships that supported their reflective practice as key to their ability to provide instructional supports. Three nodes were used to code data related to relationships: a) relationships with peers, which included co-workers or paraprofessionals in the school setting; b) relationships with educational leaders, which included relationships with supervisors or other adults who provide support and feedback about teaching practice; and, c) relationships to children and families. Appendix K provides a summary of the coding for each of these nodes related to relationships. For all three teachers these relationships were a place to reflect upon their own teaching and learning. Whether thinking through the success or failure of learning activities in the classroom, considering what children need to bring learning to life, providing feedback to a peer teacher, or examining one's own skills in relationship to a new demographic of children, the three teachers in this study firmly relied

upon relationships that allowed for self-reflection. For all three teachers, relationships form a space to engage in a reflective cycle that is not dissimilar to that which they employ to ensure intentional teaching.

Figure 6.1. Teacher/Ed Leader Reflective Cycle



This reflective cycle was described by all three teachers in some form, although each of the three teachers identified a different relationship—supervisory, peer, and children's families—whereby their reflection on their teaching practice was best supported. For Jill, reflection occurs most frequently as part of her supervisory relationship with her educational leader, where joint observation is key to helping her reflect on her teaching skills. Beth relies heavily on her relationships with children and families to provide her with a reflective lens through which to view her effectiveness; and Wendy uses her role as a mentor/coach to think through her own practice and that of those she mentors. Key to all of these reflective strategies is the relationship-building each teacher undertakes to gain and offer information about teaching.

Jill, Wendy, and Beth all use relationships to leverage information that aids their reflective practice. Each uses the information gained through these relationships to think about and improve their teaching practices. What is interesting about this theme is how parallel it runs to the theme that emerged about teachers' provision of instructional support. Beth, Wendy, Jill,

and their educational leaders all identified a process of building relationships, using assessment data, implementing teaching skills, and reflecting on practice that is quite similar to the process they use to plan for children's learning opportunities. Similar to the intentional teaching cycle, teachers' self-reflective activities are also ongoing: for Jill this happens as a regular part of reflective supervision; for Wendy it happens as part of the coaching and mentoring she provides regularly; and for Beth this process happens as she learns about families and reflects upon that learning. Beth also uses her personal time out of school to read, study, and reflect upon new learning to bring into her classroom.

Although the practical application of the reflective cycle differs across the three cases, the same basic elements are part of each approach. At least for these three teachers, teaching and learning—and the processes involved in them—are similar whether one is examining their own teaching practice or developing learning activities for children.

Professional Development and Ongoing Learning. Wendy, Jill, and Beth all described a commitment to their ongoing professional development as a component of lifelong learning. That learning took on several forms outlined in Table 6.1.

Table 6.1. Learning Activities Identified by Participants

	Ongoing Professional Development (training/technical assistance)	Coursework toward future degree attainment (on top of existing degree)	Degree and credential completion (081 teacher certification	Graduate credit-based certificate
Beth	✓		✓	
Jill	✓	✓		✓
Wendy	✓	✓	✓	

All three teachers reported ongoing professional development that was related to their current teaching role as critical to their belief in their ability to teach in ways that are effective for the children in their classroom. When talking about supports that help them strengthen their

delivery of instructional support, Jill, Wendy, and Beth described professional development activities such as those in the Table 6.1. Professional development activities were referenced 22 times across the three teacher interviews and the coded portions of those interviews covered anywhere from four to 42% of the interview text, making this a commonly mentioned topic throughout the interviews.

In addition to professional development, Beth, Wendy, and Jill each described other types of ongoing learning activities that they undertook outside of their school day to improve their teaching. Beth, Jill, and Wendy all identified a deeply held commitment to early childhood teaching. That teaching crosses boundaries between home and school, permeating their thinking beyond the school day and fueling a desire to continue learning in an effort to refine their teaching skills. All three teachers described their commitment to teaching as something that extends well beyond the school day. These activities worked to crossed home and school lines and were aptly described by Jill as "part of the job that's not part of the job." Throughout the coding process this home-school connection was identified in seven teacher interviews with a total of 17 references.

For Beth and Jill this home and school connection is quite literal with planning and reflection occurring both during and outside of school hours. Jill's description of this as "part of the job that is not part of the job" accurately describes the stance that both take to teaching which results in their bringing work into their home and home into their work.

For Wendy, teaching crosses the home and school boundaries in a different way as she pursues intensive professional development (coursework, training, conferences and coaching) on her own time and as part of her role in at the organization she works for. Wendy commits herself and her time to efforts to learn more about the ELL population with whom she works because this too is "part of the job that's not part of the job." She continues to implement the practices she learned as a part of the ERF grant well beyond the end of the grant period and has taken on the

role of coach/mentor to other staff to ensure that these strategies, which she feels are so effective for this population, permeate the organization.

Structural Elements that Challenge Instructional Support

As Beth, Wendy, and Jill talked about things that challenged their provision of instructional support they focused on things that limited their time with children or their ability to help children to take full advantage of learning opportunities.

Length of School Day. Both Beth and Wendy identified the shortened school day (half hour program delivery structure) as the largest challenge to their delivery of instructional support. Wendy indicated that she would benefit from "Having more time to spend with each child one-on-one," while Beth indicated a desire to have time for "one more group time," during the day to reinforce concepts. Both Beth and Wendy indicated that more time with children would increase their ability to support children's learning. Jill also talked about finding it "hard to fit everything in" even within a full day program option, such as the one she teaches in. She was expressing her struggle to provide enough time for children's unstructured play and the need to provide more direct instructional support within and outside of those play experiences. All three teachers identified this as a significant challenge to their ability to provide instructional support.

Lack of Services to Address Children's Mental Health Needs. Both Wendy and Jill also identified the need to address children's mental health needs as something that challenged the time they had available to provide instructional support. For Wendy, this manifested itself in the need to provide one-on-one support to children as they waited for transition to a special purpose programs. While she was successful at providing adaptations in the classroom to support children, she acknowledged that it took one teacher essentially out of the teacher-child ratio for the period of time in which a child needed that level of individual support. She also described the need to provide such supports so that children would "be successful at accessing their learning environment."

Jill described the need to case manage for children to ensure that referrals are followed through on. She identified the waiting time for children as "lost time with learning" in her classroom. Finally, Beth talked about the need to support a child who had recently undergone a death in the family. Her ability to complete home visits, to know what was happening in that family, while not articulated as a challenge per se, impacted her ability to support the child when he was sad or unable to participate in a learning activity during the school day. Thus, the need to focus on and support children's mental health needs so that they can fully access learning opportunities weighed heavily on the teachers in this study, and presented a unique challenge to their teaching. Jill described this challenge best in her description of her feeling that she had failed to support a child in her classroom, "I know I can't fix things for them but I want to...you just never want a child to feel unsafe...those are the times when I don't feel successful."

Chapter Summary

Chapter Six presented data to illustrate the ways in which environmental characteristics in teachers' work sites combine with personal characteristics to influence their ability to experience mastery in the delivery of instructional support to children. Jill, Wendy, and Beth described environmental characteristics that limit their time with children like the length of school day or whether or not children were bussed to school that influence their ability to provide instructional support.

These three teachers also shared information about program processes that support mastery experiences like reflective teaching practice, and close relationships with peers, supervisors or children's families. Taken together, these environmental elements worked to create the conditions under which Jill, Wendy, and Beth had enactive mastery experiences. Children's positive responses to their application of instructional support strategies emerged as a way in which these teachers experience mastery that reinforces their belief in their ability to provide instructional supports.

Chapters Five and Six presented data about the key constructs that emerged from data collected through interviews of teachers and educational leaders, as well as onsite observations. Chapter Seven presents the findings of the study, which were informed by these constructs. Chapter Seven also includes a discussion of these findings, including limitations to the study and implications for early childhood field.

CHAPTER SEVEN

DISCUSSION OF FINDINGS AND IMPLICATIONS

Chapter Seven begins with an overview of the study, followed by a review of its design, limitations of the study, a discussion of the findings, and implications for future practice. In an effort to connect the findings to current literature and research on teacher efficacy and the provision of instructional support salient literature on these topics is woven into the findings and discussion sections of this chapter.

Overview of the Study

Early childhood programs have the potential to change a child's academic trajectory by ensuring that children with low socio-economic status enter kindergarten with language, literacy and numeracy skills on par with their more affluent peers (Neuman, 2009) but these programs must be of high quality, offering children rich interactions with adults, peers, and developmentally appropriate curriculum to maximize children's growth and development. Despite the evidence linking high quality early educational programming to children's social and academic outcomes, researchers have demonstrated that the majority of early childhood programs do not rise to the level of quality necessary to positively impact children's growth in these areas. The quality of early care and education settings is, on average, "mediocre regarding the kinds of interaction and stimulation known to produce developmental gains for children" (Pianta, 2006, p.238). Moreover, the poorest quality profile [of early care and education programs] is associated with classroom poverty level, indicating that "children who need the highest quality educational experiences have teachers who are struggling the most to provide it" (LoCasale-Crouch et al., 2007, p.3). Because of the importance of offering high quality learning experiences to children adversely affected by poverty, policy makers have looked to programs that serve this population in an effort to provide high quality compensatory preschool. This increased focus has resulted in concerted efforts to increase the level of quality early care and education delivered to children from low resource homes in programs that serve this population such as Head Start.

In an effort to ensure that Head Start programs across the nation deliver preschool services at a level of quality proven to contribute to positive child outcomes, a provision for measuring teachers' interaction with children was included in the 2007 Head Start Act. This Act established a new system of accountability for programs receiving federal Head Start funding. The accountability system included in the 2007 Head Start Act requires existing Head Start programs to compete for their grants if they fall short of quality benchmarks. Among the measurements used in determining a program's success at meeting such benchmarks is a classroom assessment tool developed at the University of Virginia (CLASS: Classroom Assessment and Scoring System, Pianta, LaParo & Hamre, 2008). This tool measures the quality of teacher-child interaction in three domains: emotional support, classroom organization, and instructional support.

> [In the CLASS tool] each domain is rated on a 7-point scale, which takes into account both frequency and quality of teacher-child interactions. Scores of 1–2 mean that the quality of teacher-child interactions is low. These may be classrooms in which children are receiving ineffective interactions, such as reactive behavior management or rote instruction....Scores of 3–5 are given when classrooms show a mix of effective interactions and periods when interactions are either ineffective or just not occurring. Scores of 6–7 mean that the effective teacher-child interactions are consistently observed throughout the observation period (Office of Head Start, 2012, p.2).

Recent research suggests that classrooms need to have fairly high levels of Emotional and Organizational Support, at about a 5 on CLASS, to promote positive social development and reduce problem behaviors while the threshold for quality in the CLASS measured instructional support is only a 3 or above (Office of Head Start, 2012). Higher scores on this tool, specifically in the instructional support domain, are associated with improved academic outcomes for children, thus creating a potential link between teacher and student performance (Curby, et al.,

2009; Early et al., 2006; Hamre & Pianta, 2001, 2005; Mashburn et al. 2008). During a Head Start's review for continued funding, the CLASS observation reviewers independently review and score each classroom and the Office of Head Start averages the scores across the grantee to result in grantee-level domain scores. More than a third of Head Start grantees nationwide are currently below the threshold for instructional support, based on 2010–2011 monitoring results (Office of Head Start, 2013).

Given the disconnect between what research indicates to be necessary for affecting child outcomes and Head Start teachers' instructional practice, it is important to understand factors associated with increasing preschool teachers' effective provision of instructional support so that educational leaders can nurture and develop teachers' skills in this area. One factor that researchers have associated with higher quality classroom instruction, implementation of instructional innovation, and increased child achievement in the K-12 grades is teachers' sense of self-efficacy (Berman & McLaughlin, 1978; Ghaith & Yaghi, 1997; Guo, Piasta, Justice & Kaderavek, 2010; Justice, Mashburn, Hamre & Pianta, 2008; Nie et al., 2013). The need to improve Head Start teachers' ability to provide instructional supports for children from low resource homes and the potential that teacher self-efficacy has for increasing teachers' capacity to provide and sustain effective instructional supports indicates a need to build on the small body of mostly qualitative research on early childhood teacher self-efficacy.

Purpose of the Study

This qualitative study aimed to add to the research on early childhood teacher self-efficacy by describing, in a multiple case study, highly efficacious early career Head Start teachers' provision of instructional support and the ways in which process and structural elements of the preschool environment influence their self-efficacy. For the purposes of this study, teacher self-efficacy was defined as Head Start teachers' belief in their ability to teach in ways that produce developmental benefits for children (Bandura, 1997; Hoy & Woolfolk, 1993; Tschannen-Moran and Hoy, 2001). A particular focus of this study was Head Start teachers' belief in their

ability to provide and sustain effective instructional supports such as rich dialogue and feedback to promote children's higher order thinking and language skills because these have been found to be predictive of later academic and social success (Guo, Piasta, Justice & Kaderavek, 2010; Justice, Mashburn, Hamre & Pianta, 2008) and because they are included in current Head Start accountability efforts. The research questions that guided the guided the study are:

RQ 1. How and to what extent do highly efficacious early career stage Head Start teachers provide instructional support as defined by the CLASS (Pianta et al., 2008)?

RQ 2. How and in what ways are highly efficacious early career stage Head Start teachers' beliefs in their ability to provide instructional supports influenced by the structural and process elements of the environment in which they teach?

Design of the Study

To explore these research questions a qualitative multiple case study was conducted to describe the phenomenon of Head Start teacher self-efficacy. The study employed a conceptual framework rooted in Bandura's integrated model of human action or agency (1997) where a teacher's personal and general teaching efficacy are influenced by the context in which the teacher works. It was, therefore, a key assumption of this study that understanding Head Start teacher self-efficacy cannot be accomplished without consideration of the context in which teaching occurs. Thus, the use of a multiple case study approach provided the opportunity to explore Head Start teacher self-efficacy across varied classroom and program contexts, such as the type of curriculum used or the length of the preschool day for children, and other program elements identified in the conceptual framework that guided the study.

Three teachers, or cases, were selected for the study, and thereafter a series of three interviews was conducted with each teacher selected. One interview was held with the educational leaders who provide feedback and supervision related to teachers' classroom practices. An observation of each teacher's classroom was conducted using the CLASS tool to gather information about the types of teacher-child interaction occurring in these preschool

settings. Interview and observational data were analyzed to develop descriptions of teacher's delivery of instructional support in the preschool classroom to gather information related to the first research question, "How and to what extent do highly efficacious early career stage Head Start teachers provide instructional support as defined by the CLASS (Pianta et al., 2008)?"

To elicit insight into the second research question, "How and in what ways are highly efficacious early career stage Head Start teachers' beliefs in their ability to provide instructional supports influenced by the structural and process elements of the environment in which they teach?" the study relied heavily on teacher and educational leader interview data as well as the researcher's impressions of the teaching environments, which were recorded in a field log during visits to teacher's preschools. Onsite visits offered information about structural features of the environment such as teachers' work spaces for planning and meeting, length of day for children's programming, and the elements of the daily schedule for children.

Interviews with teachers and educational leaders offered information about process elements of the environment, such as how often teachers meet to plan, and the process they use for designing learning activities for children. These data helped to identify environmental elements that help teachers be effective in their provision of instructional support. Finally, combining data collected about the teaching environment with teacher's personal information about what things build or shake their confidence, what they believe makes a good early childhood teacher, and how they sustain their best efforts toward instructional support offered insight into the ways in which teacher's self-efficacy is developed and sustained in a preschool setting.

During data collection and analysis a journal was maintained to record all field notes, to identify analytic decision-making and inform coding processes, and to document emerging patterns and themes. Data coding was conducted in NVivo using the study's conceptual framework to develop a start list of codes and following a procedure outlined by Creswell (2012). Creswell's process includes: a) segmenting text and coding it with labels from the conceptual

framework; b) adding codes where important data were not captured with original list; and, c) filtering codes into themes or buckets of content. For the final step codes were filtered into organizational, substantive, and theoretical categories as suggested by Maxwell (2005). Once again, these categories were derived from the conceptual framework with the two overarching research questions acting as organizational categories, structural and process elements of the environment used as substantive categories, and items related to self-efficacy forming the theoretical categories.

In the final step of analysis, data were reconnected to determine connections or points of commonality and agreement among these data. These points of agreement were used to develop emerging themes that describe highly efficacious early career Head Start teachers' instructional support strategies and the ways in which structural and process elements of the teaching environment influence their self-efficacy. These connections were developed and then tested out with participants as interviews progressed to address discrepancies and to ensure that the connections were valid in that they represented the experiences of these three teachers.

Limitations

This study was limited by several factors. First, my role as student researcher might have been conflated with my professional role the area of early childhood professional development. In my former role as Director of Maine Roads to Quality, Maine's early childhood professional development system, I developed strong relationships with Head Start Directors and often worked with Head Start programs and teachers. Although I was careful to explain my role as a student researcher during this study, it would be hard for teachers to completely separate my student role and the conversations that occurred throughout the interview process from previous interactions I have had with their organizations. This may have influenced how comfortable teachers were with sharing information about their programs, particularly if these portrayed their schools in a negative light.

On the other hand, my background in this area and existing relationships with programs may have also promoted participant sharing since I came to the interviews with a deep understanding of the field of early education and teacher professional development. I believe that this experience and understanding, as well as the steps I took to clarify my roles and ensure confidentiality, helped to mitigate some of the apprehension participants may have felt when talking about their teaching challenges.

Second, the onsite observations conducted as part of this study provided information about a single point in time for these programs. Although I conducted the observations within the CLASS tool's protocol, it is still important to note the limitation of using data from a single day in an early childhood classroom to draw conclusions about teacher practices. Selection criteria for the study mitigated this issue to a significant degree however, because only teachers who had consistently received CLASS scores above the high quality threshold during the prior year's observations (by reliable Head Start CLASS observers) were recruited and selected for participation.

A third limitation has to do with teachers' comfort with sharing information during interviews about their self-efficacy. The description of one's belief in her ability is a highly personal topic. To reveal confidence or doubt in one's own abilities makes a teacher vulnerable. To the extent that Jill, Beth and Wendy felt comfortable doing so, their sharing of such information allowed me to explore the phenomenon of self-efficacy in their provision of instructional support. To increase Jill's, Wendy's, and Beth's comfort with sharing information I used member checking throughout the data collection and analysis period of the study. This allowed the three teachers an opportunity to clarify or confirm their contributions to emerging themes and findings.

Finally, this study is limited to the exploration of teacher efficacy for three teachers in Head Start programs in Maine. Though every effort was be made to ensure the recruitment of a

diverse group of cases to study, the information collected from this study is descriptive in nature and is not generalizable beyond these three highly efficacious teachers.

Despite these limitations, information collected in this study regarding the contexts in which Head Start teacher efficacy is developed and supported may be informative to educational leaders and professional development consultants who work to promote teacher efficacy in similar early childhood settings. The study provides important information about self-efficacy among early career preschool teachers and this construct's relationship to effective teaching. Findings from this study of highly efficacious teachers are intended to be aspirational for teachers across programs with varying levels of quality and diverse program elements and can inform early childhood teachers about what it means to be a highly efficacious preschool teacher.

Findings

This study examined the instructional support delivered by three highly efficacious Head Start teachers. Jill, Wendy, and Beth each work in Head Start settings with varying process and structural characteristics, which allowed for exploration of the influence of environmental characteristics on teachers' delivery of instructional support and their beliefs in their ability to do so. Interviews with teachers, observations of their teaching practice using the CLASS (Pianta et al., 2008) instrument, and conversations with the educational leaders in these teaching sites were used to elicit commonalities and differences among the cases. These commonalities and differences were examined to further understand the ways in which teachers' personal characteristics combine with the environments in which they teach to influence the delivery of instructional support to preschoolers. The following section of this chapter provides the findings that emerged from this study.

Finding #1: Highly Efficacious Head Start Teachers Embed Instructional Support in a Cycle of Intentional Teaching

Individual and cross-case analysis revealed a similar approach to the delivery of instructional support by all three teachers. This approach involved a cyclical process whereby

teachers: 1) observe and interact with children and families to get to know the child and to develop relationships; 2) use formative assessment data and existing early learning standards to understand and plan for the developmental needs of individual children and the group as whole; 3) use team planning time to reflect upon the needs of individual children and of the group to design curriculum 4) implement curriculum, including making modifications, embedding specific learning opportunities, and providing individual supports to children who need them; and 5) evaluate the effectiveness of curriculum to provide information to begin the cycle again (Figure 5.5).

This cycle of intentional teaching was supported by elements of the work environment that allowed for time to conduct each step of the cycle. For Jill, space in the form of a large room devoted to teachers' planning efforts as well as weekly time with her team allow her to engage in the intentional teaching cycle. Time before school begins each day and weekly planning with her co-teacher offer Wendy opportunities to plan for and modify her curriculum. Beth's comments indicate her ability to do some planning with her co-teacher every day and their commitment to making up for lost planning time due to professional development or other scheduling overlaps. For each teacher, time to engage in the intentional teaching cycle was supported by their work environments.

Finding # 2: Highly Efficacious Head Start Teachers' Descriptions of their Instructional Support Strategies Differed from those Most Frequently Observed in their Classrooms

Jill, Wendy, and Beth described the ways in which they modify curriculum plans, embed specific learning activities, and work one-on-one with children in an effort to increase children's understanding of concepts and acquisition of skills. These teaching practices are intended to scaffold individual children's engagement with and learning from classroom activities. This study used the CLASS (Pianta et al., 2008) observation tool as a framework for measuring and categorizing these practices. During the classroom observations conducted as part of this study, all three teachers scored well above the Head Start national averages in the tool's instructional

support domain. During interviews teachers' described their instructional support strategies as using techniques to increase concept development of children and to provide high quality feedback to extend and deepen children's learning. In the actual observation of these three teachers' classrooms however, the most frequently identified teacher's instructional support strategies fell within the language modeling dimension of the CLASS framework.

Finding #3: Highly Efficacious Head Start Teachers Rely on Collegial Relationships to Help them Reflect Upon and Strengthen their Instructional Support

Across and within the three cases in this study, the importance of relationships to teachers' ongoing learning was consistently identified as something that helped them to strengthen their instructional supports in the classroom. Each teacher, however, identified a different type of relationship that was most beneficial to her. For Jill, her relationship with her supervisor where they jointly observed classroom practices and then reflected upon improvement strategies was most helpful.

For Wendy, relationships with her peers and within her school community worked to increase her ability to deliver instructional support. Her work as a mentor allowed her to see other classroom teachers' practices and to reflect upon those to support her own abilities. Wendy also talked about the value of monthly peer meetings where she works with another mentor teacher to establish a learning community around the provision of instructional support.

Beth's relationships with her co-teacher as well as the families and children in their program scaffolded her teaching skills. Beth worked with her co-teacher to build upon a deep knowledge of children, families, and the community in which they live to guide their planning for instructional support and to provide feedback for reflection about the types of project-based learning activities that might optimize children's learning opportunities in her classroom.

Finding #4: Structural Elements in the Work Environment that Limit Time with Children Challenge Head Start Teachers' Provision of Instructional Support

Wendy, Jill, and Beth each identified a desire for more time with children to enhance their ability to provide instructional supports in small groups and through one-on-one interaction. They further described structural elements of their teaching environment including length of school day and a lack of supporting services on site to address children's mental health needs as features that limit their instructional time with children.

Finding #5: Highly Efficacious Head Start Teachers use Formative Assessment of Children's Progress to Confirm the Value of their Instructional Support and to Build Self-Efficacy

The teachers included in this study consistently connected children's positive responses to their belief in their ability to provide instructional support. Children's positive experiences were documented in formative assessment data collected in Teaching Strategies Gold™, which is used as part of the intentional teaching cycle in all three classroom. In addition Wendy and Jill also had access to assessment data collected by external evaluators. For Jill, formal child-level assessment data is collected as part of an ongoing national study about the effectiveness of their program and provides her with data about children's language, literacy and math outcomes. For Wendy, this type of formal child assessment data was provided to her when she participated in an Early Reading First grant.

Teachers also gathered feedback on children's positive responses as part of their daily observations of the classroom and from their conversations with parents. Finally, one teacher, Jill, received feedback about children's school readiness from the receiving public school when children transitioned to Kindergarten. For all three teachers, seeing children's success at understanding a new concept or learning a new skill acted as mastery experiences, or success in an endeavor that builds a person's belief in his or her ability to repeat such actions in the future (Bandura, 1997). These mastery experiences had a powerful influence on their self-efficacy.

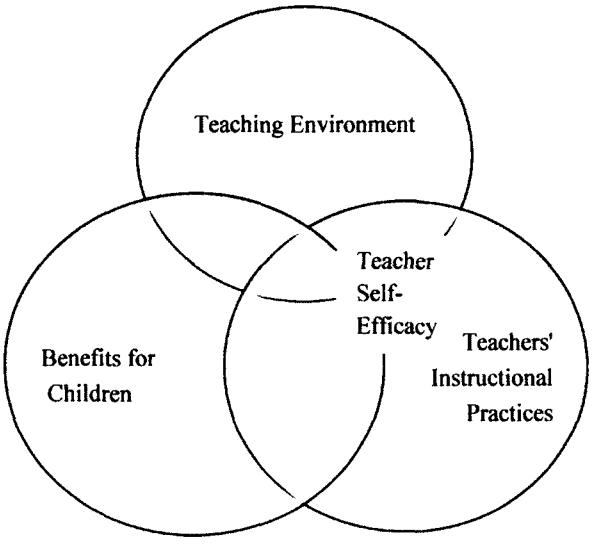
Discussion

The exploration of teaching in the classrooms of three highly efficacious Head Start teachers provided an opportunity to describe instructional support in preschool settings. A goal of this study was also to learn about how elements of the teaching environment influence teacher's self-efficacy. Inquiries relevant to the latter construct of environmental influences on self-efficacy identified a connection between teachers' provision of instructional supports that benefit children's social and academic outcomes and teachers' instructional self-efficacy. This section of Chapter Seven explores implications of the study for the original conceptual framework that guided the study.

Revisiting the Conceptual Framework that Guided the Study

The teachers in this study described one element of the teaching environment that had an influence on their self-efficacy, namely that seeing children benefit from their instructional support increased their belief in their ability to provide such supports. Although this was the only element of the environment directly identified by teachers as having an influence on their self-efficacy, several other process elements of the teaching environment emerged as important to setting up conditions under which successful instructional support may be delivered. It is likely that teaching environments set the conditions under which successful instructional support may be delivered, and by extension, provide opportunities for teachers to see the positive results of their teaching on children's development. As a consequence, successful instructional efforts act as mastery experiences (Figure 7.1) for teachers which build and sustain their self-efficacy.

Figure 7.1. Mastery Experiences

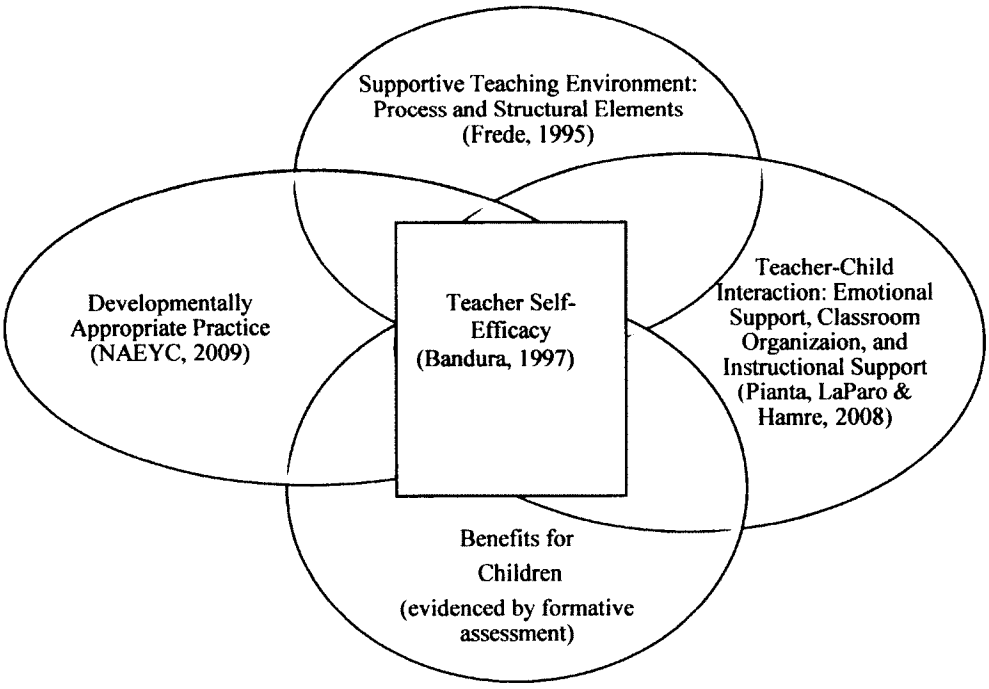


Mastery experiences act as powerful reinforcement to teachers that their efforts result in a level of performance that benefits children. Beth, Jill, and Wendy all described such teaching successes as most impactful on their commitment to continuing to provide instructional support strategies that had benefitted children. All three teachers also talked about the ways in which their teaching environments influenced whether they had the time and resources to plan for and deliver instructional supports; thus teaching environments set the conditions in which successful instructional support is provided and in which Jill, Beth, and Wendy all saw benefits for children. The experiences of Jill, Wendy, and Beth offer a clear application of Bandura's theory of self-efficacy, which includes the concept of triadic reciprocal causation whereby environmental and personal processes combine to influence self-efficacy. More than thirty years after Bandura studied the impact of self-efficacy on human behavior and agency, his theory still offers powerfully relevant insight into the promotion of early childhood teacher efficacy. Bandura understood that humans need to be encouraged (verbal persuasion) in the face of new experiences; they need to see others experience success in similar efforts (vicarious experiences) and they need to have some success in their own attempts (mastery experiences) so that the benefits of their actions are clearly understood and internalized. For Jill, Wendy, and Beth

encouragement and verbal persuasion occurred within the relationships they had with peers, families, and educational leaders who offered them insight into their teaching practices. Jill, Wendy, and Beth also observed other teachers in their programs, during professional development activities and within communities of practice which provided vicarious experiences from which they could learn. Ultimately Jill, Wendy, and Beth each had their own successes with children in their classrooms, which provided mastery experiences and reinforced their self-efficacy.

The experiences of Beth, Wendy, and Jill indicate a more interconnected role between self-efficacy, the teaching environment, and evidence of benefits for children than was included in the original conceptual framework that guided this study; therefore a modified framework (Figure 7.2) is presented to demonstrate the ways in which the experiences of the three teachers in this study are assimilated into a revised framework.

Figure 7.2 Modified Conceptual Framework



The combination of personal and environmental factors described in the study and represented in Figure 7.2 offer insight into how highly efficacious preschool teachers successfully

provide instructional support. Effective instructional supports are provided through interactions between teachers and children that scaffold children's social and cognitive development. These interactions also provide emotional support for children so that they feel their classroom is a warm, positive, and safe place to learn. Teacher-child interactions are also characterized by organizational supports that teachers provide to orient children to the purpose of learning activities (Pianta, et al., 2008). All three domains of teacher child interaction: emotional support, classroom organization, and instructional support (Pianta, et al., 2008) occur within, and thus overlap with, developmentally appropriate teaching practices (NAEYC, 2009).

The success of teacher-child interactions is promoted by supportive teaching environments that offer process supports such as: time for planning, reflective supervision, and support for ongoing learning (Frede, 1995). Supportive teaching environments also include other structural elements, like scheduled time for interaction with parents during home visits or at the beginning and end of the school day and group sizes and teacher-child ratios to promote teachers' ability to provide individualized instructional support (Frede, 1995). Finally in this modified conceptual framework, benefits for children are demonstrated through formative assessment data, act to reinforce the value of teacher's instructional supports for children, and bolster teachers' self-efficacy (Bandura, 1997).

The modified conceptual framework that resulted from the study of instructional support in three Head Start classrooms offers insight into the ways in which preschool teacher's instructional support can be sustained and developed so that Head Start teachers are more likely to experience mastery and build their self-efficacy. Accordingly, the following section of this chapter provides a discussion about how the findings of this study contribute to existing research on what it means to be a highly efficacious preschool teacher and what preschool teachers need to continue to grow.

What does it Mean to be a Highly Efficacious Preschool Teacher?

This study of highly efficacious preschool teachers identified three common characteristics across this group of teachers: 1) a commitment to engaging in their own learning; 2) the use of reflective practice to improve their teaching; and, 3) the ability to seamlessly embed instructional supports into existing developmentally appropriate teaching practices. The first two characteristics, a commitment to ongoing learning and the use of reflective practice are discussed simultaneously since they are interrelated concepts. The third characteristic, embedding instructional supports into existing teaching practices, although connected to reflective practice, is a somewhat different construct and is discussed separately.

Commitment to Ongoing Learning and Reflective Practice. For Wendy, Beth, and Jill an ongoing disposition toward continuous learning and reflection was central to their ability to sustain and improve their instructional support of children. Their pursuit of learning included both formal education through traditional higher education programs and informal opportunities to learn through self-study activities such as reading and synthesizing information from professional organizations and trusted internet sources. Their personal learning also took place as part of organized professional development delivered by the schools at which Beth, Wendy, and Jill work but also through learning opportunities provided in partnerships with local universities or other community organizations. Reflection was a key strand of the learning opportunities as Jill, Wendy, and Beth each identified the application of learning into teaching settings where they received feedback or were provided collegial opportunities for reflective conversation as an important component of the learning process which further codified new knowledge or skill. An ongoing disposition to learning and reflection as a characteristic of highly efficacious teachers is consistent with Bandura's theory of self-efficacy. Bandura's theory posits that highly efficacious teachers develop and sustain their efficacy by observing effective practices in action (vicarious experiences) and receiving positive feedback (verbal persuasion). Thus Bandura's theory is helpful in understanding the extent to which Jill, Wendy, and Beth pursued ongoing

learning, applied it to their teaching practice, and received positive feedback from educational leaders or colleagues in their teaching settings. Beth articulated this process clearly in her comments about feedback she received from her educational leader after she and other teachers in her program had attended professional development related to instructional support strategies, "she [educational leader] expressed an area I was weak in...I think I am more conscious of it all the time now, and it has pushed me to improve my skills here." Consistent with Bandura's theory, these highly efficacious preschool teachers used these types of learning opportunities to develop and sustain their teaching efficacy.

Bandura is also helpful in understanding the personal drive that inspires teachers to pursue these types of ongoing learning opportunities. For Beth, Wendy, and Jill, this drive is rooted in their personal disposition toward ongoing self-improvement and their belief that by improving their skills they will become more competent teachers. These were reflected in their statements about ongoing learning such as, "I think every early childhood teacher should be a lifelong learner" and "I love to take classes...it is all related to what I do every day and immediately applicable." Their responses about ongoing learning are consistent with Bandura's theory that people's personal affective states such as self-reliance, hopefulness, and optimism contribute to self-efficacy.

A comment from Wendy exemplifies the personal drive that fuels Jill's, Wendy's, and Beth's belief in the importance of lifelong learning, "I think that is so important for any educator but especially for early childhood teachers...to be open to learning and be willing to learn and to adapt your practices in response." She further explained that this was important because the children who enter an early childhood classroom are always changing and adapting teaching processes in response is an exciting challenge to which all teachers must rise. Her comments shed light on an important characteristic of highly efficacious preschool teachers: They rely on themselves to pursue learning that helps them adapt their teaching practices to best meet the changing needs of children.

Highly efficacious preschool teachers' commitment to ongoing learning in support of children represents their optimism and hope about the future. Beth, Wendy, and Jill are demonstrably committed to improving their teaching practice through their own ongoing learning because they firmly believe that doing so will change the social and academic outcomes of the children in their classrooms.

Embedding Instructional Supports into Existing Teaching Practices. Highly efficacious teachers use an intentional teaching approach to thoughtfully embed instructional support into existing developmentally appropriate teaching practices. The use of such an approach to intentional teaching is not new to the early childhood field. Epstein (2007) identified a similar approach in her definition of intentional early childhood teaching, "An intentional teacher aims at clearly defined learning objectives for children, employs instructional strategies likely to help children achieve the objectives, and continually assesses progress and adjusts the strategies based on that assessment." (p.4). Thus the process described by the three teachers in this study, whereby they used knowledge of children and families, as well as assessment data and published early learning and kindergarten standards to plan for, reflect upon, and modify their teaching, was consistent with the literature on the process of intentional teaching.

Although the process involved in intentional teaching is not a novel finding, the fact that all three teachers confirmed the value and use of intentional support strategies as part of such a process appeared to be inconsistent with early childhood research literature that suggests that teachers might be conflicted about this approach. For example, the review of literature that guided this study included researchers' suggestions that early childhood teachers' belief in developmentally appropriate practice might inhibit their willingness to embed instructional support into their teaching practices (Justice et al., 2008; Lobman & Ryan, 2007). Lobman and Ryan's study of preschool teachers working with low income children in New Jersey found "major gaps between the current recommendations of researchers and national policy makers [stakeholders] and the beliefs of those currently working in the field" (p. 377). They identified

these differences as "tensions between what current policies expect preschool teachers to be expert in and what stakeholders view as important for teachers to be able to know and do" (Lobman & Ryan, p.376). Similarly, Justice and her colleagues' study of preschool teachers approach to literacy instruction suggested that teachers adhering to a more child-centered philosophy may be reluctant to deliver instruction with a specified scope and sequence and that seems overly didactic, as high quality literacy instruction may appear (Justice et al., 2008).

The findings from the current study conflict with this prior research and a key concept that framed this study. The findings suggest that at least for these three highly efficacious Head Start teachers the tension between traditional child-centered pedagogy and the delivery of instructional support was not present. For these three teachers the delivery of instructional support, while admittedly something these teachers described as different from that which they learned in their initial teacher preparation, was not perceived as separate from, nor in conflict with, a traditional approach to developmentally appropriate teaching. Rather, instructional support was seen by Jill, Wendy, and Beth as something that they learned to emphasize as part of an intentional teaching cycle where teachers plan for teachable moments within the course of a day or week. Although many instructional support opportunities happen in the moment, it is the thoughtful use of knowledge about children and planning for learning opportunities that helps teachers make the most of those moments and anticipate what may be needed to help children take full opportunity of learning activities.

It is important to note this contradiction to the study's conceptual framework because it provides further evidence to dispel the myth that providing instructional support to children is somehow overly didactic, teacher-led, or inappropriate for early childhood classrooms. When done within an intentional teaching frame, explicit teacher-guided instructional support is developmentally appropriate practice.

What do Preschool Teachers Need to Continue to Grow?

The current study determined three important elements of the teaching environment that support preschool teachers' continued growth. First, teaching environments that support relationships among staff to plan for and reflect upon teaching allow teachers to continue to develop as professionals. Second, environments that support preschool teacher's development provide opportunities to use child and teacher-level observation and assessment data to inform the benefits of teacher's instructional supports for children, to provide information that teachers can use to modify their teaching strategies, and to act as evidence of mastery for teachers. Third, environments in which preschool teachers continue to hone their craft offer opportunities for professional development that includes explicit content that is delivered within a relationship-based approach.

Environments that Support Planning and Reflection. The organizations in which Wendy, Beth, and Jill worked all provided ample opportunities for teachers to plan and reflect together about how to best meet the needs of the children and families in their schools. The importance of peer learning opportunities and collegiality as mechanisms for supporting teacher's instructional practices is consistent with studies that have shown teachers' sense of community to be associated with instructional quality (Guo et al., 2011; McGinty et al., 2008). Structural components of the teaching environment such as teacher planning spaces and regular paid planning time, which occurred weekly for Jill and Wendy and daily for Beth, were important to teachers' ability to step away from the classroom with their teaching colleagues. Removed from the classroom, teachers were able to think about what children were struggling with, where their interests were motivating engagement with learning materials, and how effective their current curriculum efforts were related to their goals for children.

Taking this time away to have reflective conversations was identified as important by all three teachers because it allowed them to evaluate their approaches to teaching, to modify curriculum plans to meet the needs of children, and to purposefully prepare for the upcoming

week's or day's learning activities. Having planning time allowed Beth, Wendy, and Jill to be prepared to take advantage of teachable moments where they could embed more explicit instructional supports.

The importance of contextual variables that influence teachers' ability to plan for instructional support is consistent with Tschannen-Moran and Woolfolk Hoy's findings that, as teachers assess their competency related to classroom instruction, they consider contextual variables (2007). Further, Tschannen-Moran and Woolfolk Hoy explain that teachers' assessment of the teaching task requirements will include the resources available; student factors such as their perceived ability, motivation, and socio-economic status; and contextual factors such as school leadership, collegial support, and the availability of resources (p. 945). Consistent with existing research, space and time for planning and reflection with colleagues were identified by Wendy, Jill, and Beth as elements that support their ability to provide instructional support.

Formative Assessment Data. Highly efficacious early childhood teachers rely on assessment data to inform their instructional teaching practices and to confirm when their instructional supports have had a positive effect on children. All three teachers confirmed that understanding, through the use of formative assessments when and how their instructional supports were successful codified their belief in their ability to provide instructional support and that, in doing so, children would benefit. This finding is consistent with Bandura's identification of factors that work to enhance self-efficacy. These include an individual's personal mastery experiences where success in an endeavor builds a person's belief in his or her ability to repeat such actions in the future (1997).

Jill, Wendy, and Beth all experienced personal mastery when their efforts to provide instructional support were successful at helping children learn. They were able to see this success in children's engagement in the classroom as well as in data collected from formative assessments of children's learning. Bandura also cautioned that positive changes in self-efficacy only come through "compelling feedback that forcefully disrupts the preexisting disbelief in one's

capabilities" (1997, p.82). In this study that compelling feedback was identified by teachers as positive responses from the children in their classrooms. When Wendy, Jill, and Beth saw the impact their instructional support had on children, they committed to continuing with the strategies and gained confidence in their teaching ability.

All three teaching environments used formative assessment data to inform their teaching practices. At the teacher level, all three Head Start programs were actively using data from the CLASS to observe teacher practice and to provide feedback for improvement. At the child level, all three programs relied upon data from Teaching Strategies Gold™ to provide information about children's development which was used to tailor curriculum and instruction. Jill's program had significant child and teacher level data that included formal assessments of children's development and teacher practice by an external evaluator. These data were used to contribute to a national study examining the effectiveness of Jill's program model, but the program also intentionally embedded the external evaluation efforts into their ongoing continuous improvement by feeding data back to parents, teachers, and educational leaders to support their ongoing work.

Thorough Understanding of Instructional Support. Given that all three teachers selected for this study were highly efficacious, the fact that Wendy, Jill, and Beth all had CLASS scores that were higher than the national mean in instructional support is not a novel finding, but rather one that is consistent with Bandura's research on instructional efficacy:

> Teachers who have a high sense of instructional efficacy devote more classroom time to academic activities [and] provide students who encounter difficulties with the guidance they need to succeed...Teachers' beliefs in their efficacy affect their general orientation toward the educational process as well as their specific instructional activities (Bandura, 1997, p.241).

Moreover, an interesting discovery from this study and a concurrent understanding of teachers' provision of instructional support was the discrepancy between the way these three teachers described their instructional support strategies and the actual instructional support

strategies observed in their classrooms. Since, at present, this phenomenon is not addressed in the research literature, it is unknown whether this is a unique finding related to these three teachers, something more pervasive in the way Head Start teachers understand the CLASS dimensions, or an issue with the way the tool differentiates the three dimensions of instructional support. The technical appendix of the CLASS tool does include confirmatory factor analysis results for the CLASS from six studies where the authors of the scale note that the instructional support domain had high levels of internal consistency and factor loading; however, the tool's authors also note that the fit indices, or how closely the observational data fit the theoretical framework behind the tool, were not ideal (Pianta et al.). Given the strong theoretical basis of the domains and the high internal consistency, the authors recommend the "users of the CLASS create CLASS domain composites accordingly" (p.94). Thus, although the instructional support domain includes the three dimensions of concept development, quality of feedback, and language modeling, the most useful and informative score may be at the domain level that includes a composite score that factors in all three dimensions. Regardless of the way in which the tool's dimensions differentiate instructional support strategies in observed teaching practices, it can be concluded that for these three teachers, a disconnect between perceived and actual instructional support strategies may be a factor that limits their attention to the full array of instructional support strategies outlined by the CLASS measure.

To understand how this additional attention to the details of the CLASS dimensions might be helpful, it is again illustrative to consider aspects of Bandura's theory of self-efficacy. In essence, self-efficacy, which Bandura defines as the extent to which people believe in their ability to "organize and execute the courses of action required to produce given attainments" (1997, p.3) requires an accurate knowledge of that which is to be attained, the desired outcome. Bandura's theory of personal efficacy includes a discussion of both outcome and efficacy expectations. Bandura explains that outcome expectation refers to a person's estimate that a certain behavior will produce a specified outcome, whereas efficacy expectation "is the conviction that one can

successfully execute the behavior required to produce the outcomes" (1997, p. 193). Taken together, Bandura's theory about self-efficacy implies that providing teachers with complete information about how their performance does or does not match the full definition of instructional support in the tool or where their performance is not in synch with their self-appraisal is an important factor in supporting their ability to deliver instructional support in ways that match outcome expectations.

Use of assessment data is one way to address the apparent discrepancy between how teachers categorized their most commonly used instructional support strategies (concept development and quality of feedback) and the actual instructional support strategies that were most commonly observed (language modeling). Helping teachers understand the categories of their instructional support may further their use of all three dimensions (concept development, quality of feedback, and language modeling) in the classroom. In addition, providing teachers with explicit knowledge about the ways in which the three dimensions of the instructional support are similar and unique implies an important role for professional development, a construct that is explored in the next section of this discussion.

Relationship-Based Professional Development with Explicit Content on Instructional Support. For Wendy, Beth, and Jill, professional development experiences were described as critical to their ability to be effective teachers. Wendy's experience on an Early Reading First grant that offered intensive professional development supports over five years including training, coaching, and ongoing communities of practice was instrumental in her development of curricular approaches that supported the learning of English language learners. Beth described professional development delivered in her program related to instructional support that is coupled with observation and feedback from her educational leader as helpful to her teaching practice, and Jill identified continuous education through an institute of higher education as supportive of her improved teaching skills. All three teachers identified professional development experiences as immediately applicable to their work settings.

This is consistent with Bandura's (1997) discussion of the ways in which humans develop knowledge and skills. He offers "mastery modeling" as an ideal mechanism to support adult learning within an occupational setting. Bandura states that, "much social learning occurs either deliberately or inadvertently by observing the actual behavior of others and the consequences" (p.440). For Jill this type of mastery modeling occurred as part of her work with her supervisor where, together, they observed and identified the consequences of that observation for Jill's improvement and application in her own teaching.

Characteristics of Jill's, Wendy's, and Beth's professional development experiences including the use of relationship-based professional development (coaching, mentoring, communities of practice) and learning that includes application to practice is consistent with the current literature on effective early childhood professional development. This literature suggests that in effective early childhood professional development offerings "practice is an explicit focus of the professional development, and attention is given to linking the focus on early educator knowledge and practice" (Zaslow, et al., 2010). All three teachers identified that their professional development experiences were effective and meaningful because they could immediately apply their learning to their teaching practice. Zaslow et al., 2010, also suggest that in effective early childhood professional development "there is collective participation of teachers from the same classrooms or schools in professional development," a practice that all three teachers described as part of their experiences where reflective conversations among peers, as well as group professional development offerings were supported across their schools. Dickinson, Darrow, and Tinubuet (2008) also identified a relationship-based approach to early childhood professional development in their review of effective support for teachers' growth and development. The suggest that "carefully designed in-service professional development efforts that include coaching might have a more immediate impact on teaching practices than group professional development that is not accompanied by supports for adoption of specific new strategies in classrooms (2010, p. 399).

Finally, the need to embed explicit content related to teacher-child interactions whereby teachers learn to identify specific instructional support strategies has been identified as a promising professional development approach toward increasing preschool teacher's competency in the area of instructional support (Hamre et al., 2012). This last finding from the research could be beneficial when teachers describe their instructional supports in ways that are not consistent with actual classroom practices observed, as was the case in this study. Professional development that offers explicit examples of instructional support strategies across all three dimensions: concept development, quality of feedback, and language modeling might be beneficial in increasing teachers' understanding of their own instructional strategies and how to ensure they are using varied strategies that support all three dimensions of the construct.

Implications

The purpose of this study was to learn about instructional support in the classrooms of three highly efficacious Head Start teachers and to deepen our understanding of how elements of the teaching environment influence teachers' belief in their ability to deliver instructional supports to children. Within the limitations outlined in the opening sections of this chapter, the study offers implications for educational leaders and others who wish to support preschool teachers to grow and develop their instructional skills.

Implications for Educational Leaders

Educational leaders in preschool programs must attend to a myriad of program and process elements of their schools. Adhering to state and federal program regulations and performance standards while cultivating the professional growth of the teachers in their program can be an overwhelming prospect for any leader and can seem far removed from the types of day–to–day activities that support teaching and learning in children's classrooms. Despite this apparent distance between school administration and children's learning, findings from this study suggest that educational leaders can, and do, set up the conditions under which teachers can be most effective at providing instructional supports to children.

These conditions include structural elements like paid planning time and opportunities for teachers to reflect and plan together in spaces that are separate from children's classrooms. Conditions that support teacher's effective delivery of instructional support also include process elements of the work environment, including things like support for ongoing professional development and opportunities to use data-driven feedback to reflect upon and improve teaching practices. Finally, educational leaders model a relationship-based approach to supervision and learning by offering coaching, mentoring, and opportunities for collegial dialogue and reflection about teaching practices across the school. By setting up the conditions under which teachers can be most effective, educational leaders promote the likelihood of teacher's mastery experiences in the classroom that work to develop and sustain their self-efficacy.

Implications for Early Childhood Professional Development

Findings from this study indicate that professional development is an important contributor to teacher's ability to provide instructional support; thus there are implications for both in-service professional development and teacher preparation that occurs before a teacher begins working in an early childhood program.

In-Service Professional Development. All three teachers mentioned professional development as integral to their growth as a teacher. Each teacher's program provided ongoing professional development as part of their in-service training and support. A specific implication from this study is the need for explicit content related to instructional support in preschool teachers' professional development. Even highly efficacious teachers, such as Wendy, Beth, and Jill, can benefit from professional development that results in greater understanding of the individual dimensions within the domain of instructional support as defined by the CLASS (Pianta et al., 2008). Although all three teachers in this study scored well above the Head Start national average for instructional support, they described the use of strategies across all three dimensions of instructional support that was not reflected in the observations of their classroom practice that occurred as part of this study.

One might be tempted to assume that this is not an important issue if teachers' scores are already well above the threshold at which teachers' instructional support benefits children, as was the case with Wendy, Jill, and Beth. But if we recall the research on instructional quality thresholds, the importance of continuing to hone teacher's skills in this area becomes clear. Burchinal and her colleagues determined that "children acquire academic skills only when the minimal standards represented by our cut-off point of above a 3.25 on the Instructional Quality Dimension are met, and that higher quality instruction produces more academic gains" (Burchinal et al., 2007, p. 174). This research implies it is important for teachers to reach this threshold score on the CLASS, but it also suggests that children's gains do not level off at that threshold and that, as teachers deliver higher levels of instructional support beyond this 3.25 score, children's gains also increase.

Thus, professional development that helps preschool teachers develop deeper understanding of the dimensions of instructional support can support greater gains for children. Emerging research has shown that when professional development offerings combine several key elements teacher's competency in the provision of instructional support is increased. These elements include: a) content on specific subject matter such as language and literacy; b) exposure to explicit strategies for instruction support through the use of multi-media or video libraries of teachers' instructional practices; and, c) relationship-based coaching or peer mentoring whereby teachers can reflect upon their learning (Early et al., 2014; Hamre et al., 2012). Explicit content in professional development can help teachers uncouple and understand the three distinct dimensions of instructional support, including concept development, quality of feedback and language modeling. When such content is delivered within a relationship-based approach to professional development it is an important strategy to help teachers elevate their practice and optimize children's social and academic outcomes.

Teacher Preparation Programs. Findings from this study indicate that the use of the CLASS (Pianta et al., 2008) within teacher preparation programs in higher education may be beneficial.

Providing students in teacher preparation programs with exposure to the CLASS (Pianta et al., 2008) by sharing video of effective practices as measured by the tool, using the CLASS as a lens for measuring the effectiveness of student teaching practices, or helping students reflect upon their own student teaching practices through the CLASS frame would offer students explicit and clear examples of teacher-child interactions that are most beneficial for children. These types of student learning opportunities, which offer students vicarious and mastery experiences, might also help to develop self-efficacy during the teacher induction period.

Implications for Early Childhood Teachers

Findings from this study also have implications for early childhood teachers who wish to improve their instructional support practices. The three teachers in this study took charge of their own learning, making ongoing inquiry and reflection about best practices in instructional support part of their professional and personal lives. They embraced opportunities to be part of both formal and informal professional development. A commitment to professional development and personal learning was actualized by these teachers as they used opportunities provided by their school as well as those they sought our personally to hone their skills and become more effective for the children in their programs. Early childhood teachers who wish to ensure that their teaching practices best support the growth and development of young children may wish to enact a similar disposition to their personal and professional learning and development.

Implications for Head Start Settings

Since all three teachers in this study were part of Head Start programs it is important to note that the findings may be informative to other Head Start settings. Head Start programs have a myriad of standards and regulations that define both structural and process elements of their early childhood programming, yet despite this standardization of Head Start nationally, individual programs such as the three highlighted in this study can still find ways to tailor their program design to support teachers in ways that suite the uniqueness of the program.

Carving out space and time for planning for teachers is not specifically defined in the Head Start regulations; yet all three of these programs worked to provide that for their teachers. Similarly, two of the three programs in this study pursued external activities, funding, and supports for professional development through university partnerships and ongoing evaluation efforts in response to their community needs. These initiatives took additional time and resources on the part of Head Start programs in this study because they were outside of the traditional Head Start model of preschool service delivery in their federal grants.

Ultimately these extra efforts increased the skills and competency of teachers in these Head Start programs. For Beth, Jill, and Wendy, these types of supports made a difference in their ability to provide instructional supports. The study of these three teachers implies that when Head Start programs focus resources such as time, space, and extensive professional development on the teachers in their program, both teachers and children benefit. Thus it is important for Head Start programs to think beyond the standard performance regulations that define Head Start programs to the types of individualized initiatives that are most responsive to their own teachers and to the children and families in the communities in which their programs are located.

Implications for Policy Makers

The findings in this study have implications for policy makers in the early childhood and public pre-K through 12 education arenas.

Early Childhood Policy Makers. This study has implications for those who are charged with defining early childhood program standards for publically funded programs whose purpose is to address school readiness gaps. Current standards for these settings cover a wide range of program elements. Some are closely tied to the types of learning activities in classrooms that benefit children and others less so. If policy makers intend to close the school readiness gap for disadvantaged children, then standards and regulations should align with what research has shown to be most effective in addressing children's social and academic outcomes. That includes standards that set the conditions within which teachers are most effective in their interactions with

children. Requirements related to direct supports for teachers including paid planning time, access to mental health consultation for children, and ongoing relationship-based professional development are critical to teachers' ability to provide the types of instructional support that benefit children.

Likewise, efforts to hold programs accountable for standards linked to teacher-child interaction, such as the recent use of the CLASS observation tool as a measure of a program's eligibility for continued funding must also account for contextual factors that influence the quality of teacher-child interactions. This requires an understanding and accounting for issues such as whether a teaching team has time to plan learning activities, understands the CLASS tool and what it measures, and has received sufficient support to improve their instructional practices. If teacher performance is to be included in accountability efforts, then the conditions that support teachers to elevate their practice to the level required in such accountability is an equally important consideration in decision-making that determines a program's continued funding.

Policy makers might also consider whether measuring teachers' practice with the CLASS tool as an element of accountability, rather than as a vehicle for improving practice through professional development efforts, is worthwhile. It is likely that the use of the CLASS for professional learning and growth, coupled with formative assessment of children's practice, works to reinforce teachers' use of effective instructional practices and to build their self-efficacy. Consideration of the ways in which accountability efforts could support this more holistic approach to the use of both teacher and child-level formative assessments to support and elevate teacher practice should be considered as part of policy makers' overall efforts to improve the level of quality in early childhood programs.

Public Pre-K Through Grade 12 Policy Makers. For policy makers with a specific focus on standards for public pre-K through grade 12 schools, findings from this study indicate a need to pay attention to program design elements that are more typically found in community-based early childhood settings than those of public schools. These include things like providing a full school

day, conducting home visits, and engaging in daily conversations with families even when children are transported on busses to and from school. These efforts work to increase teachers' time with children and expand their knowledge of the child's family.

Another implication for public pre-K through grade12 policy makers is the need to consider policies and practices that promote teachers' self-efficacy. Setting up conditions under which teachers can plan, reflect, see effective teaching practices modeled, and experience evidence of success in formative or curriculum-based assessment data is just as important for teachers in public schools as it is for Head Start teachers. Creating teaching environments that support teachers in delivering effective instruction will increase the likelihood that they will have mastery experiences in their classrooms that build their instructional efficacy. Efforts to use child-level assessment data as information to inform professional development for teachers is another important consideration for public pre-K through grade12 policy makers who often influence the ways in which data are collected and used in school districts.

Implications for Future Research

Further research about the differences in teachers' understanding of the instructional support dimensions of concept development, quality of feedback, and language modeling is an area of research that would build on the findings in this study. Additional qualitative research in this area would offer much needed information about the cognitive dissonance between how teachers perceive and describe their instructional support strategies and those actually implemented in their classroom settings. Further evidence is needed to identify the ways in which teachers understand instructional support and its multiple dimensions, and whether there is added value in ensuring that they understand and employ strategies across all three dimensions of instructional support.

Related to the study of teachers' understanding of instructional support is the need to learn how early childhood educational leaders (supervisors, educational coordinators, and program directors) understand these types of teaching strategies. These educational leaders

provide feedback to teachers on their instructional support practices, yet there is little evidence in the research literature about how equipped such educational leaders are to provide coaching, mentoring, and supervision in the area of instructional support. This question was not addressed in the current study but could have shed additional light on the types of environmental elements that support or hinder teachers' instructional abilities. Educational leaders' understanding of instructional support is an important area for future research given the degree to which supervisory relationships and feedback were emphasized by the teachers in this study.

Another area for future research is the ways in which children influence early childhood teachers' self-efficacy. While there is a great deal of research on the influence of student behavior and achievement on public school teacher efficacy, less research was available on how this is consistent or different for early childhood teachers. Given the importance of children's positive responses articulated by the teachers in this study, the ways in which such responses influence early childhood teachers' self-efficacy is an area of research that could be leveraged in future work to support and sustain early childhood teachers' self-efficacy.

Concluding Thoughts

Conducting a study on teacher's self-efficacy in the provision of instructional support was an endeavor I took on with both hesitation and excitement. Given the new emphasis on the use of the CLASS (Pianta et al., 2008) tool to measure teacher-child interaction in Head Start programs and my knowledge of the average level of quality delivered in most early learning programs, I was a bit worried about traveling down this road of inquiry. I feared that teachers would not want to talk with me about this emphasis on interaction and instructional support, that I was somehow devaluing the whole of the teaching by parceling out one dimensions for study, and that what I might see in classrooms would not resemble what I held in my own mind about best practices. Yet eagerness to learn about this phenomenon pushed me forward and ultimately rewarded me with time and experience in three incredible classrooms.

The teaching and learning that is happening in Jill's, Wendy's, and Beth's classrooms offer the most positive lens through which to view the shifting focus toward accountability in the early childhood world. These three highly efficacious teachers embrace this shift. They work to raise the level of their instructional supports and overall teaching practice every day and across all aspects of their personal and professional lives. Jill, Wendy, and Beth embrace intentional teaching and all of the work that is involved in such an approach—not because it means that their scores on the CLASS tool will rise to a level that ensures their school's continued funding, but because they know that by doing so children will benefit. At the heart of their work to provide instructional support, to plan learning activities, and to know and engage children and families is the desire to influence children in positive ways. Is there any more important quality in a teacher?

Teachers are at the heart of this study and at the heart of our efforts to make a difference for children at-risk of failing in school and in life. Through this study I have learned that to make good on public investments aimed at mitigating these risks for children we must also invest in teachers. Setting up conditions—at the policy, program, and individual levels—under which teachers like Jill, Beth, and Wendy can be intentional about their teaching and provide instructional supports to children that most need them is our very best chance to close the school readiness gap.

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APPENDIX A

INITIAL RECRUITMENT LETTER

Dear Teacher,

My name is Allyson Dean and I am a doctoral student at the University of Maine. I am contacting you because the director of your organization identified you as a potential participant in a study I am doing about Head Start teachers' beliefs about pre-school teaching. I am particularly interested in talking to you about your experiences teaching preschool children.

Participation in this study will require engagement in three semi-structured interviews. I anticipate that each interview will last no more than one hour, and we will identify mutually convenient dates and times for the interviews. In addition, I would like to visit your classroom and observe on a morning that is convenient for you.

The data that are collected through this study are intended to help Head Start programs and professional development organizations provide professional development and to help pre-school teachers.

I hope that you are interested in participating in this important research study. If you have questions or concerns, or would like to join the study, please contact me at (207) 653-3516 or adean@maine.edu. Thank you for your consideration.

Sincerely,

Allyson Dean

APPENDIX B

RECRUITMENT PHONE INTERVIEW

1. Program Information

Structural Characteristics of Head Start site:

Program location:

Number of children served: Program Type (circle all that apply):

Full day programming Home Visiting component Half-day programming

Public Pre-K classroom Full Year programming

Teacher to child ratios in preschool classroom:

Group size of preschool classrooms:

Process Characteristics of Head Start site:

Curriculum used:

Developmental Assessments used and process: Planning time policies:

CLASS-related Activities:

Any specific activities, professional development, or supports in place related to the use of the Classroom Assessment and Scoring System (CLASS) in the past two years?

2. Teacher Information

Gender:

Years of Experience in Head Start:

Years of Experience in current program:

Other teaching experience?

Highest level of educational attainment:

APPENDIX C

ADULT INFORMED CONSENT - TEACHER

You are invited to participate in a research project being conducted by Allyson Dean a graduate student in the College of Education and Human Development at the University of Maine. The purpose of the research is to talk with Head Start teachers about their experiences teaching preschool children.

What Will You Be Asked to Do?

If you decide to participate, you will be asked to take part in a three part interview series to discuss your work experiences in providing learning activities to preschool children. Examples of the type of questions you will be asked are, "How do you think children learn and develop best?" and, "What things in your work environment help or hinder your ability to support children's learning? Each of the interviews will take approximately one hour of your time. The date and time of the interviews will be scheduled around participant's availability and will take place at the work site for participants' convenience. Interviews will be audiotaped. In addition, the researcher will conduct one classroom observation to observe your interactions with children, the learning environment, and the types of activities that typically occur in your classroom. The observation will not be used to rate your teaching practice, but rather to provide additional information about the program in which you teach.

Risks

Your participation in this study involves some minimal risk. It is possible that you may become uncomfortable answering the questions or being observed in your classroom. The interviews will involve your time and may inconvenience you

Benefits

Your participation in this study involves some benefits including: a) You may learn more about your ability to provide learning activities to children; and, b)The information you provide will help to inform support for teachers in their delivery of learning activities to children.

Confidentiality

All information collected in the interview will remain confidential. In written documentation of data collection, your name will not be included on any documents. A pseudonym will be used to protect your identity. Data will be kept in the investigator's locked office and on a secure thumb drive. Your name or other identifying information will not be reported in any publication. Any data collected will be destroyed upon completion of full dissertation proposal.

Voluntary

Participation is voluntary. If you choose to take part in this study, you may stop at any time. You may skip any questions you do not wish to answer. Your decision to withdraw or participate in the study will not be shared by the principal investigator.

Contact Information

If you have any questions about this study, please contact me at adean@usm.maine.edu or 207-653-3516. You may also contact my faculty advisor at sarah.mackenzie@maine.edu at 207-581-2734. If you have any questions about your rights as a research participant, please contact Gayle Jones, Assistant to the University of Maine's Protection of Human Subjects Review Board, at 581-1498 (or e-mail gayle.jones@umit.maine.edu).

Contact Information

If you have any questions about this study, please contact me at adean@usm.maine.edu or 207-653-3516. You may also contact my faculty advisor at sarah.mackenzie@maine.edu at 207-581-2734. If you have any questions about your rights as a research participant, please contact Gayle Jones, Assistant to the University of Maine's Protection of Human Subjects Review Board, at 581-1498 (or e-mail gayle.jones@umit.maine.edu).

APPENDIX D

ADULT INFORMED CONSENT – EDUCATIONAL LEADER

You are invited to participate in a research project being conducted by Allyson Dean a graduate student in the College of Education and Human Development at the University of Maine. The purpose of the research is to talk with Head Start teachers about their experiences teaching preschool children.

What Will You Be Asked to Do?

If you decide to participate, you will be asked to take part in one interview to discuss your work experiences in supporting teachers to provide learning activities to preschool children. Examples of the type of questions you will be asked are, "How do you support teachers' planning for children's learning activities? and, "How do you help teachers examine their teaching practices?" The interview will take approximately one hour of your time. The date and time of the interview will be scheduled around your availability and will take place at your work site for convenience. Interviews will be audiotaped.

Risks

Your participation in this study involves some minor risks including: a) There is the possibility that you may become uncomfortable answering the questions; and, b) The interviews will involve your time and may inconvenience you.

Benefits

Your participation in this study involves some benefits including: a) You may learn more about your ability to provide supports to teachers; and, b)The information you provide will help to inform support for teachers in their delivery of learning activities to children.

Confidentiality

All information collected in the interview will remain confidential. In written documentation of data collection, your name will not be included on any documents. A pseudonym will be used to protect your identity. Data will be kept in the investigator's locked office and on a secure thumb

drive. Your name or other identifying information will not be reported in any publication. Any data collected will be destroyed upon completion of full dissertation proposal.

Voluntary

Participation is voluntary. If you choose to take part in this study, you may stop at any time. You may skip any questions you do not wish to answer. Your decision to withdraw or participate in the study will not be shared by the principal investigator.

Contact Information

If you have any questions about this study, please contact me at adean@usm.maine.edu or 207-653-3516. You may also contact my faculty advisor at sarah.mackenzie@maine.edu at 207-581-2734. If you have any questions about your rights as a research participant, please contact Gayle Jones, Assistant to the University of Maine's Protection of Human Subjects Review Board, at 581-1498 (or e-mail gayle.jones@umit.maine.edu.

APPENDIX E

TEACHER SELF-EFFICACY SCALE

Teacher Survey

This questionnaire is designed to help me gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinions about each of the statements below by checking the box above the appropriate number. Your answers will be kept strictly confidential and will not be identified by name.

How much can you influence the decisions that are made in the school?

1	2	3	4	5	6	7	8	9
Nothing	Very Little		Some Influence		Quite a Bit		A Great Deal	

How much can you express your views freely on important school matters?

1	2	3	4	5	6	7	8	9
Nothing	Very Little		Some Influence		Quite a Bit		A Great Deal	

How much can you do to get the instructional materials and equipment you need?

1	2	3	4	5	6	7	8	9
Nothing	Very Little		Some Influence		Quite a Bit		A Great Deal	

How much can you do to influence the group sizes in your school?

1	2	3	4	5	6	7	8	9
Nothing	Very Little		Some Influence		Quite a Bit		A Great Deal	

How much can you do to get through to the most difficult children?

1	2	3	4	5	6	7	8	9
Nothing	Very Little		Some Influence		Quite a Bit		A Great Deal	

How much can you do to promote learning when there is lack of support from the home?

1	2	3	4	5	6	7	8	9
Nothing	Very Little		Some Influence		Quite a Bit		A Great Deal	

How much can you do to keep children on task during difficult activities?

1	2	3	4	5	6	7	8	9
Nothing	Very Little		Some Influence		Quite a Bit		A Great Deal	

How much can you do to increase children's memory of what they have previously learned?

1	2	3	4	5	6	7	8	9
Nothing	Very Little		Some Influence		Quite a Bit		A Great Deal	

How much can you do to motivate a child who shows low interest in school activities?

1	2	3	4	5	6	7	8	9
Nothing	Very Little		Some Influence		Quite a Bit		A Great Deal	

How much can you do to get children to work together?

1	2	3	4	5	6	7	8	9
Nothing	Very Little		Some Influence		Quite a Bit		A Great Deal	

How much can you do to overcome the influence of adverse community conditions on children's learning?

1	2	3	4	5	6	7	8	9
Nothing	Very Little		Some Influence		Quite a Bit		A Great Deal	

How much can you do to get children to follow classroom rules?

1	2	3	4	5	6	7	8	9
Nothing	Very Little		Some Influence		Quite a Bit		A Great Deal	

How much can you do to control disruptive behavior in the classroom?

1	2	3	4	5	6	7	8	9
Nothing	Very Little		Some Influence		Quite a Bit		A Great Deal	

How much can you do to prevent problem behavior in school?

1	2	3	4	5	6	7	8	9
Nothing	Very Little		Some Influence		Quite a Bit		A Great Deal	

How much can you do to get parents to become involved in school activities?

1	2	3	4	5	6	7	8	9
Nothing	Very Little		Some Influence		Quite a Bit		A Great Deal	

How much can you do to make parents feel comfortable coming to school?

1	2	3	4	5	6	7	8	9
Nothing	Very Little		Some Influence		Quite a Bit		A Great Deal	

How much can you do to make the school a safe place?

1	2	3	4	5	6	7	8	9
Nothing	Very Little		Some Influence		Quite a Bit		A Great Deal	

How much can you do to make children enjoy coming to school?

1	2	3	4	5	6	7	8	9
Nothing	Very Little		Some Influence		Quite a Bit		A Great Deal	

How much can you do to get children to trust teachers?

1	2	3	4	5	6	7	8	9
Nothing	Very Little		Some Influence		Quite a Bit		A Great Deal	

How much can you help other teachers with their teaching skills?

1	2	3	4	5	6	7	8	9
Nothing	Very Little		Some Influence		Quite a Bit		A Great Deal	

How much can you do to enhance collaboration between teachers and the administration to make the school run effectively?

1	2	3	4	5	6	7	8	9
Nothing	Very Little		Some Influence		Quite a Bit		A Great Deal	

APPENDIX F

TEACHER INTERVIEW PROTOCOL – INTERVIEW #1

1.1) Tell me the story of how you became a Head Start teacher.

Probe – Did you always want to be a teacher? Did you always want to work with children at risk? How did you decide this was what you wanted to do?

1.2) How do you think children learn and develop best?

Probe - Can you describe what your role is in that process? How do you think that you make a difference in how children learn and develop?

1.3) Tell me about a typical day in your classroom.

Probe – what activities during your day lend themselves to supporting and extending children's learning? How much of your time is available for extending children's thinking?

1.4) What things in your work environment help or hinder your ability to support children's learning?

Probe –materials, group size, other? Relationships with co-teachers, planning time, professional development, other?

1.5) Are there any resources outside of your work environment that you believe help you to support children's learning?

Probe – Professional development, own research, learning?

1.6) What types of learning activities do you provide to support children's development? Probe -What do you see as your role in helping children learn?

Probe – How do children demonstrate their needs to you? How do you know when and what type of support to offer?

1.7) Tell me about what strategies you use when you think a child is struggling to understand a concept or idea?

Probe – Do you have some tried and true methods that you rely on to help child who is struggling to learn? Tell me about them.

1.8) Tell me about who you talk to when you have concerns about your ability to support children's learning?

Probe – if there is not a person, what resources do you rely on?

1.9) Tell me about who you talk to in the organization when you have concerns about a child's development.

1.10) If a new teacher asked you what it is like to work at this program, what would you tell them?

Probe – What is it like to be a teacher in this program?

1.11) What types of professional development do you participate in? How do these influence your teaching practices?

1.12) How do you receive feedback about your teaching practice?

Probe – Are regular observations (with CLASS or other tool) part of the feedback loop?

APPENDIX G

TEACHER INTERVIEW PROTOCOL - INTERVIEW # 2

2.1) How do you decide how and when to provide one-on-one support to promote a child's learning? Share a story of a time you have successfully tailored your teaching to a specific child.

Probes: What did you decide to say and do? Why? How did the child respond? What clues did you see that the child's thinking and learning had moved a tiny step forward?

2.2) How do you conduct curriculum planning in your classroom:

2.3) Has there ever been a time in your career as a Head Start teacher when you doubted your teaching abilities or struggled to held a child learn? Can you describe that time for me?

Probe - What contributed to your doubting yourself as a teacher? During that time, was there anything you wish a supervisor, or leader in the program had done differently to support you? What, would have helped? How did you support yourself in that process?

2.4) How do you feel the teaching experiences you've had, both positive and negative, have affected your confidence in your ability to support children's growth and development?

2.5) Tell me about the things you do to help you enhance your teaching.

Probe: Self- reflection? Talking with supervisor? Professional development (mentor, training etc.), other?

2.6) Tell me about how this organization supports adult teaching and learning for you and for others.

Probe: How does your organization support your continued learning and growth as a teacher? Professional development? Planning time in teams? Reflective supervision?

2.7) Are there other organizational issues that support or hinder your ability to teach in ways that you believe to be beneficial to children?

2.8) Do you think the current movement in Head Start toward accountability for teachers by measuring their performance with the CLASS tool has affected teachers?

Probe: Are they affected by this? Is it something that is on your mind?

Probe: How has the focus on instructional support in the CLASS tool affected teaching for you and others in this program?

2.9) In what ways do you consider the delivery of more direct instructional support to children in the classroom consistent with your approach to teaching young children?

Probe – Is the current focus on delivery of direct instructional support consistent with your beliefs about the way children learn? How have these beliefs evolved over your teaching career?

2.10) In general how confident are you in your ability to provide direct instructional support to extend children's learning? How does this compare to your confidence in your overall teaching abilities with young children?

Probe – Are you less confident in your ability to provide direct instructional support? What would make you more confident?

2.11) What things help you improve your teaching practice?

APPENDIX H

TEACHER INTERVIEW PROTOCOL - INTERVIEW #3

3.1) Thinking about the different settings in which you have been a teacher, what types of things make you more or less confident in your ability to teach young children?

Probe – Over the course of your career, how have the supports you received influenced your confidence in your teaching ability?

3.2) Last time we talked, you described a time when you felt that you were ineffective or unsuccessful at supporting the learning of a child, can you talk a little more about that?

3.3) Has this experience changed your belief in your ability to supporting children's learning?

Probe – How has this experience affected your beliefs in your abilities? How have these beliefs evolved as a result of these experiences?

3.4) Over the time that you have been a Head Start teacher, how have children's needs changed, and how confident are you in your ability to respond to those changing needs?

Probe – As a Head Start teacher, how much do you believe in your ability to respond to the varied needs of children? How has this belief in your teaching abilities evolved over your time as a Head Start teaching?

3.5) If you could have one resource, or support in place to help you be an effective teacher of young children, what would it be?

Probe –What do you believe you need to be an effective teacher?

3.6) How have your reasons for becoming a teacher changed since you began in this field?

Probe –Do you still hold the same beliefs that drew you to this work? If not, how an in what ways have these evolved and changed?

3.7) What else would you like to tell me about what affects your ability to support children's learning?

APPENDIX I

EDUCATIONAL LEADER INTERVIEW PROTOCOL

1.1) Tell me about your role at this program.

Probe: Responsibilities, time with teachers, number of teachers worked with, other duties, scope of leadership duties.

1.2) How long and in what various capacities have you provided these types of supports to teachers.

Probe: With this program or with another, years, level of experience, and preparation for this role?

1.3) Tell me a little bit, about how you came to have this role?

Probe: personal preparation, leadership training, on the job preparation for role?

1.4) Tell me about your work with (teacher participant).

Probe: Time with teacher, strategies used to support teacher, frequency of meetings and interaction with teacher.

1.5) Can you describe how you observe teachers?

1.6) Tell me about how you provide feedback to teachers on their teaching practice.

1.7) What types of strategies do you use when you want to help a teacher change or refine her practice?

Probe: What does it look and sound like?

1.8) Tell me about a time when you struggled to support a teacher's performance in the classroom?

Probe: ask about instructional support, support of curriculum and activity planning and implementation if not offered.

1.9) Tell me about a time when you felt successful in supporting a positive change in a teacher's practice?

Probe: ask about instructional support, support of curriculum and activity planning and implementation if not offered.

1.10) What types of interactions with teachers do you think are most effective at supporting their confidence and ability with regard to instructional strategies?

Probe: Are they different for each teacher or is this a program-wide approach?

1.11) Has the recent emphasis on teacher-child interaction in your agency's federal review affected the types of supports or the focus of your supports with teachers? If so, can you explain how this has affected your support of teachers?

Probe: Is your support of teachers different? More focused on interaction?

1.12) Do you use any type of modeling with teachers in support of their practice? Can you describe how you or others model teaching strategies?

Probe – Use of videotape? Verbal coaching? Modeling by peer or supervisor? Other?

1.13) How do you differentiate your supports to teachers?

Probe: Use of observational data, adult learning style, relationship characteristics, other?

1.14) What types of supports are available for you in your provisions of supports to teachers?

Probe: parallel process? Training or professional development around support of teachers' classroom practice?

1.15) What do you rely on professionally, to support your work?

Probe: continuing education, training, reading, community of practice, other?

1.16) What else would you like to tell me about your work with teachers in this program?

APPENDIX J

CLASSROOM OBSERVATION PROTOCOL

General Live Observation Procedure for the Classroom Assessment and Scoring System (Pianta et al., 2008 pp. 9 – 10)

The entire CLASS observation typically starts at the beginning of the school day and continues throughout the morning for at least 2 hours. The observer should conduct the observation according to the following rules:

- Observation starts at the time the school day begins, according to the teacher, or at another predetermined time.
- Coding then proceeds using the 30-minute cycle (i.e. 20-minute observe, 10-minute record) until the end of the observation.
- A minimum of four cycles should be obtained.

The observation procedure requires the observer to watch, without interruption, activity in the classroom for a period of 20 minutes. During this time, the observer should watch the who, what and how, of everything that happens at the classroom level, with particular attention to the teachers' instructional interactions and behaviors.

Teachers' interactions are observed across three domains that include ten dimensions. These include:

Emotional Support Domain: Positive Climate, Negative Climate, Teacher Sensitivity, Regard for Student Perspective

Classroom Organization: Behavior Management, Productivity, Instructional Learning Formats

Instructional Support: Concept Development, Quality of Feedback, Language Modeling

APPENDIX K

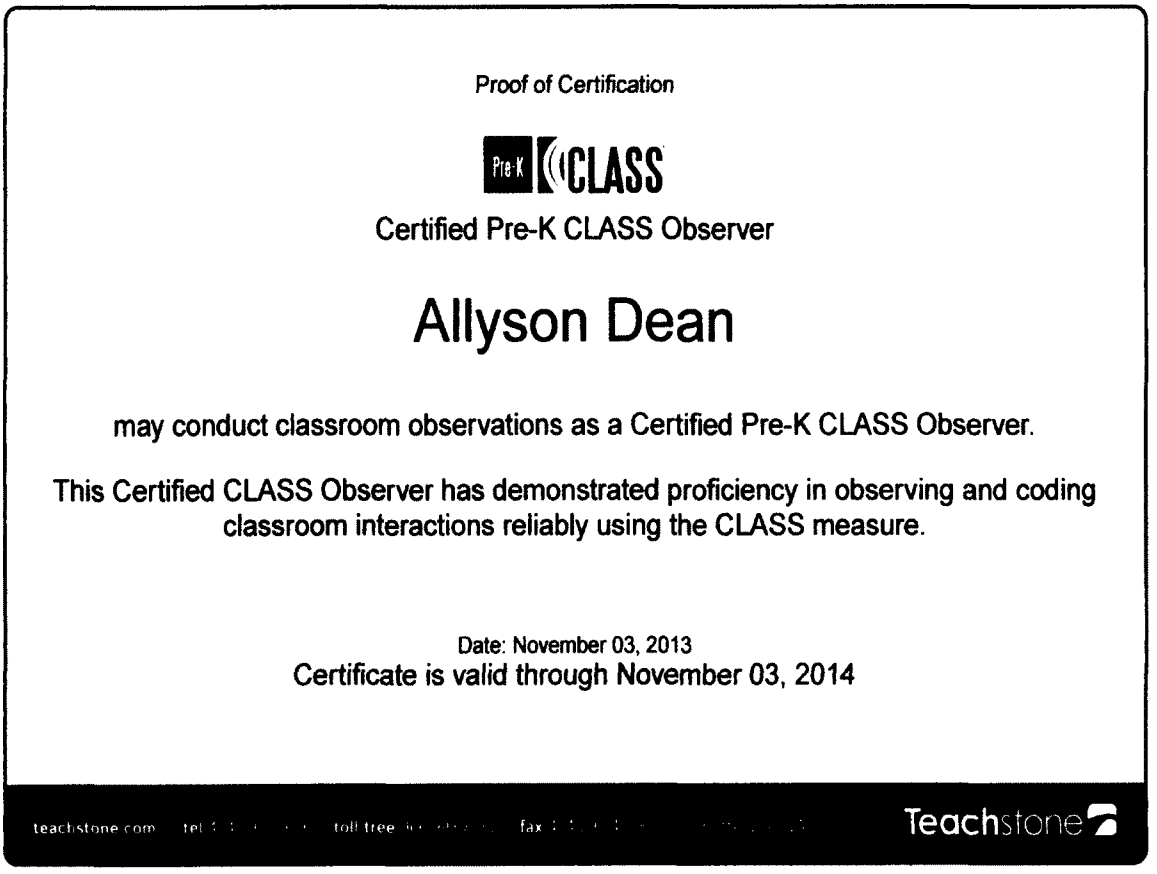
CODING FOR RELATIONSHIP NODES

Table K.1. Coding for Relationship Nodes

Data Source	**Node: Relationship with Peer**
Wendy Teacher Interview 1	2 references, 7.8% coverage
Wendy Teacher Interview 2	2 references, 12% coverage
Jill Teacher Interview 1	3 references, 11.15% coverage
Jill Teacher Interview 2	2 references, 10.10% coverage
Jill Educational Leader Interview	3 references, 15.04% coverage
Wendy Educational Leader Interview	4 references, 18.34% coverage
Beth Teacher Interview 2	2 references, 7.8% coverage
Data Source	**Node: Relationship with Educational Leader**
Wendy Teacher Interview 1	1 reference, 2.99% coverage
Jill Teacher Interview 1	3 references, 8.34% coverage
Jill Teacher Interview 2	1 reference, 2.81% coverage
Beth Teacher Interview 1	1 reference, 5.29% coverage
Beth Teacher Interview 2	2 references, 18.41% coverage
Wendy Educational Leader Interview	1 reference, 1.74% coverage
Jill Educational Leader Interview	1 reference, 5.20% coverage
Data Source	**Node: Relationship with Children and Families**
Wendy Teacher Interview 1	3 references, 8.75% coverage
Wendy Teacher Interview 2	2 references, 21.29% coverage
Wendy Interview 3	1 reference, 15.83% coverage
Jill Teacher Interview 1	1 reference, 2.01% coverage
Jill Teacher Interview 2	3 references, 9.85% coverage
Jill Educational Leader Interview	2 references, 5.9% coverage
Beth Teacher interview 1	3 references, 7.84% coverage
Beth Teacher Interview 2	1 reference, 15.33% coverage
Beth Teacher Interview 3	2 references, 22.48% coverage

APPENDIX L

RESEARCHER'S CLASS CERTIFICATION



Proof of Certification

Pre-K CLASS

Certified Pre-K CLASS Observer

Allyson Dean

may conduct classroom observations as a Certified Pre-K CLASS Observer.

This Certified CLASS Observer has demonstrated proficiency in observing and coding classroom interactions reliably using the CLASS measure.

Date: November 03, 2013

Certificate is valid through November 03, 2014

teachstone.com tel toll free fax Teachstone

BIOGRAPHY OF THE AUTHOR

Allyson Dean was born in Milford, Massachusetts and graduated from Archbishop John Carroll High School in Radnor, Pennsylvania in 1986. She attended the University of New Hampshire and graduated with a Bachelor of Science degree in Child and Family Studies in 1990. After graduation Allyson moved to Maine and worked at the University of Southern Maine Child and Family Centers for 16 years. Allyson completed a Master of Science degree in Early Childhood Education and Wheelock College in 2000.

In 2006 Allyson became the director of Maine Roads to Quality, the early childhood education professional development system for the state of Maine. Under her leadership, the center transitioned from serving a single sector of the early childhood workforce to a professional development hub for Maine's cross-sector workforce including direct and non-direct early childhood roles. In addition, Allyson chaired the Governor's Child Care Advisory Council for two consecutive terms. Allyson's work with the council included leadership in critical early childhood initiatives including the development of Maine's infant toddler early learning guidelines, the development of Maine public-pre-K standards, and the design and implementation of Quality for ME, Maine's quality rating and improvement system. Allyson currently works at ZERO TO THREE, a Washington, D.C. nonprofit organization, where she supports other states in their development of early childhood professional development systems.

Allyson's current publications include *State Infant and Toddler Early Learning Guidelines. Spotlight on Infants and Toddlers,* published in 2011 by NAEYC; *Authentic Assessment in Infant Toddler Care: Review of Recent Research,* and *Early Childhood Professional Development: A Synthesis of Research,* both published in 2010 by The Muskie School of Public Service; and, *Child Care, Money and Maine: Implications for Federal and State Policy,* published by the Center for Law and Social Policy. She is a candidate for a Doctor of Education degree in Educational Leadership from the University of Maine in May 2015.