

Two teachers' experience of whole(hearted) teacher development: Developing the person and the professional

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Cassie Kay Norvell
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Acknowledgements

“Don’t apologize for what you have. Be grateful for it and share your gratitude with others.”

(Brown, 2012, p.124)

As a result of my dissertation journey, I have learned from researcher-storyteller Brene Brown that practicing gratitude is a pathway to experiencing joy. And as I write these final documents for my dissertation, I am feeling both vulnerable and joyful. Vulnerable to worry over whether this document and study is perfect and up to expectations and yet joyful at the accomplishment of completing this project and grateful for all that I have learned along the way. It seems appropriate then, at this time, to consider all that I am truly grateful for so that I can experience joy in the face of my vulnerability.

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Abstract

Inspired by a desire to improve teacher professional development so that teachers could better meet the needs of all their students, this study proposed a new construct for teacher development that included both personal and professional development. The construct, whole(hearted) teacher development, referred to both growth and its necessary learning environment and was constructed from marrying four theories: Robert Kegan and Lisa Lahey's (2009, 2016) idea of mental complexity generated from constructive-developmentalism; Mary Belenky and Colleagues' (1997) *Women's Ways of Knowing*; Jack Mezirow's (1991) *Transformative Learning*; and Brene Brown's (2006) *Shame Resilience Theory*. Growth inside whole(hearted) teacher development was defined as when teachers grew in how they understood their experiences and came to know things and how they understood and employed shame and vulnerability. Such growth required a learning environment that allowed the learner to direct their own learning and operate as an equal, free from knowledge hierarchies or judgment. For the purposes of this study, a literacy professional development (PD) was designed and implemented to foster and support whole(hearted) teacher development. This qualitative, multi-case study examined two teachers' experiences with whole(hearted) teacher development inside a semester-long literacy PD. PD sessions were recorded and transcribed along with each teacher's pre and post classroom observations and Subject Object Interviews and an informal check-in. The data were analyzed for patterns in participants' interactions within the professional development sessions, changes in their cognitive development, and changes in their literacy practices following the case study data collection protocol. The analysis resulted in identifying that participants were vulnerable and empathetic at varying degrees; the two participants each had a specific learning process; and one participant experienced whole(hearted) teacher development

growing both her mental complexity and her instructional practices whereas the other participant only changed her instructional practice. The findings in this study suggest that personal development along with professional learning is critical for teacher growth and development.

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Chapter One: Introduction

The 2015 reauthorization of the Elementary and Secondary School Act as The Every Student Succeeds Act (ESSA) was outlined to “provide all children significant opportunity to receive a fair, equitable, and high-quality education, and to close educational achievement gaps” (Every Student Succeeds Act of 2015). According to the 2015 Nation’s Report Card, current educational achievement gaps in 4th grade students’ literacy occur among students who qualified for the National School Lunch Program (21 percent at or above proficient)—an indicator of students’ socioeconomic status (SES)—and students who were not eligible for National School Lunch Program (52 percent at or above proficient), among white students (46 percent at or above proficient) and their black (18 percent at or above proficient) and Hispanic peers (21 percent at or above proficient), and between male (33 percent at or above proficient) and female students (39 percent at or above proficient) (U.S. Department of Education, Institute of Education Sciences). Though we have made some progress in narrowing these educational achievement gaps the progress has been slow and varying (Ravitch, 2013).

Studies have shown that teachers’ expertise can reduce students’ academic achievement gaps (Lai, McNaughton, Amituanai-Tolosa, Turner, & Hsiao, 2009; Scanlon, Gelzheiser, Vellutino, Schatschneider, & Sweeney 2008). Researchers noted that children arrive at school with variations in their educational backgrounds resulting from their SES, culture (Hart & Risley, 2003), and diverse facility for language processing all of which require varied instructional intensity (Vellutino, Scanlon, Small, & Fanuele, 2006). Gaps in students’ academic backgrounds interfere with students’ academic development; and, unchecked across students’ academic career, these gaps can put them significantly behind their higher performing peers. Teachers, however, can have a substantial impact on student outcomes, particularly for students

who come from a low SES background (Nye, Konstantopoulos, & Hedges, 2004; Coleman, 1996; Lai et al. 2009). More specifically, the quality of a teacher's instruction has been directly linked to student outcomes (Chetty, Friedman, Hilger, Saez, Schanzenbach, & Yagan, 2010; Scanlon et al. 2008). As Allington and Cunningham (2007) pointed out, "the most promising solution to creating successful schools is to focus primarily on enhancing the expertise of classroom teachers" (p.15). In order to rise to ESSA's call to improve student outcomes, educational reform must be focused on developing teachers with the aim to improve instruction (McMahon, Forde, & Dickson, 2015; Wilson & Berne, 1999; Cohen & Ball, 1990).

Statement of the Problem

The existing gaps in achievement data indicate that public schools have some work to do to improve student outcomes. The state of Tennessee, for example, found that struggling students are less likely to have access to highly effective teachers than non-struggling students (TN DOE, 2015). Highly effective teachers were identified as teachers whose students experienced more than anticipated academic growth during a school year. TNDOE's (2015) findings, therefore, indicated that more often students who struggle will have teachers who are less likely to promote adequate student gains. When struggling students were *not* placed in a highly effective teacher's classroom, they did not make adequate gains across the school year. If students had multiple years *without* highly effective teachers, their academic growth continued to plummet, contributing to the existing academic achievement gaps. In contrast, when students had access to highly effective teachers or expert teachers those students experienced exceptional gains (Allington, Johnston, & Day, 2002; TN DOE, 2015). Even more significant was Tennessee's finding that the state of Tennessee had a limited supply of highly effective English Language

Arts (ELA) teachers (TN DOE, 2015) indicating a strong need to develop highly effective ELA teachers.

One theory for low numbers of highly effective teachers is that teachers are not fully prepared for their role as a teacher when they exit a teacher preparation program and the professional development they often receive lacks features necessary to develop teacher expertise. Teaching is complex and teachers need professional development once they are in service to bridge the gap between their preparation and expert practice. Traditionally, schools require teachers to participate in a minimum amount of professional development provided either by the district, state, or other accredited sources. The quality, form, type, and lasting impacts of professional development varies greatly across the United States (Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009a). Researchers have examined patterns in professional development and identified features of professional development that have the strongest influence on student outcomes, resulting in a set of practices dubbed High Quality Professional Development (HQPD) (Kennedy, 1998; Garet, Poerter, Desimone, Birman, & Yoon, 2001; Darling-Hammond et al. 2009a). According to these researchers, HQPD is coherent, sustained—on average 50 contact hours a year, and content focused; HQPD also incorporates active learning, is grounded in teachers' context, and requires collaboration (Darling-Hammond et al. 2009a). These researchers also found that US teachers have less access to HQPD and experience low levels of influence on school level policy and decisions—significantly less than teachers in higher achieving nations (Darling-Hammond et al. 2009b).

The Mirage, a recent study by The New Teacher Project (2015), looked closely at how districts are helping teachers become better teachers. *The Mirage* examined how four diverse districts were meeting teachers' professional development needs and found that teachers were

spending an average of 17 hours per month on professional development activities that were organized either by their district, their school, or by the teachers themselves. Seventeen hours a month exceeds researchers' calls for 50 hours across a school year to qualify for HQPD. *The Mirage* study also found, however, that seven out of ten teachers' effectiveness—as measured by classroom observation data, summative evaluation scores, and value added scores—either remained the same or declined slightly (see Figure 1) (The New Teacher Project, 2015). Digging deeper into the source of teacher growth and non-growth, the researchers compared teachers within the same districts who experienced significant improvement in their effectiveness with those teachers whose effectiveness remained the same or declined. They found that teachers in both categories experienced similar amounts of observations, coaching, formal collaboration, and monthly professional development provided by either the school, district, or independently initiated, indicating that the amount and type of professional development is not the only factor that contributes to teachers' growth and development (The New Teacher Project, 2015). What



Figure 1. Pictorial Representation of Teacher Growth. Adapted from The Mirage (The New Teacher Project, 2015)

they found, instead, was that teachers who were more open to feedback were more likely to have higher effectiveness ratings indicating a difference in teachers' approach or way of thinking as a likely contributor to teachers' potential for growth. Interestingly, when asked, exemplary teachers reported the greatest contributing factor to their own professional growth was PD that provided them with a "new systematic way to observe and interpret students' work and actions" (Gabriel, Day, & Allington, 2011, p.38) or a new framework or way of thinking about their teaching. Exemplary teachers described not just new beliefs and knowledge, but a new way of knowing, suggesting that professional development should address not just beliefs and knowledge but also the ways in which beliefs and knowledge are organized.

The significance of the variation in the ways teachers think and approach their craft and the impact these ways of thinking have on teaching reflects recent research in adult development that indicates as adults develop cognitively—such as in their ability to make decisions, think, problem solve, interpret, and interact in their environments—they are better able to meet the demands of increasingly complex jobs (Helsing, Howell, Kegan, & Lahey, 2008). Researchers have more closely examined cognitive development and discovered that a person's mental complexity—the way people organize their thinking and beliefs and understand their experiences—influences people's behaviors and stress levels (Kegan, 1982; Kegan & Lahey, 2009, 2016). To help teachers adapt to the increasingly complex job that teaching is, professional development should address developing teachers cognitively via growing teachers' mental complexity. Most districts' existing professional development practices, however, do not encompass developing teachers cognitively (Levine, 1989; Helsing, et al. 2008).

Therefore, I propose extending the current practices of professional development by layering the construct of whole(hearted) teacher development onto what we already know about

HQPD. Whole(hearted) teacher development employs transformative learning as the root of teacher development. Transformative learning results in adults developing their mental complexity, which yields changes in their ways of knowing and interpreting life's situations and eventually results in changes in people's behaviors (Mezirow, 2009; Kegan, 2000). Doing the work necessary to yield transformative learning—changing people's ways of knowing—necessitates a supportive learning environment that fosters trust and safety such as the environment described in Belenky, Clinchy, Goldberger, and Tarule's (1997) work. The process of transforming people's ways of knowing will often be met with resistance and, therefore, requires socioemotional supports such as shame resilience (Brown, 2006). The marriage of these four theories establishes the necessary conditions and criteria for whole(hearted) teacher development that bridges the existing research in teachers' professional development and adult development. No studies, to my knowledge, use mental complexity, transformative learning, Women's Ways of Knowing, and Shame Resilience Theory together as a new lens to examine teacher growth and development.

Purpose of the Study

The purpose of this study was to examine the teachers' experiences of participating in a high-quality literacy professional development guided by the construct of whole(hearted) teacher development. Applying whole(hearted) teacher development to PD broadens the current scope of teacher professional development to include developing how teachers come to know and learn (Kegan & Lahey, 2016). Instead of viewing professional development from a knowledge and skills only perspective (Kennedy, 1998; Guskey, 2002), this study examined changes in teachers' understanding of the ways they come to know as well as their practices in literacy. Extending professional development's focus to include addressing teachers' underlying beliefs and ways

they organize their thinking, required examining the interactions within professional development. The following research questions were addressed:

1. What is a teacher's experience of literacy PD designed to support whole(hearted) teacher development?
 - a. How does literacy PD designed to support whole(hearted) teacher development affect a teacher's literacy instructional practices?
 - b. How does literacy PD designed to support whole(hearted) teacher development affect a teacher's mental complexity?

Significance of Study

Students need highly effective teachers to help them reach their full potential (Vellutino et al. 2006). Current professional development efforts are not impacting teachers and student outcomes enough to adequately improve academic achievement gaps (Ravitch, 2013). Teachers cannot be expected to meet the current high demands without the appropriate environment, processes, and support.

This study's significance lies in the paucity of research that connects the tenets of adult development with the existing practices in teacher professional development. To my knowledge, no research has been completed that marries Belenky's Women's ways of knowing, Mezirow's Transformative learning, Kegan and Lahey's mental complexity, and Brown's Shame Resilience Theory, into a map for whole(hearted) teacher development. Researchers and practitioners alike will benefit from understanding the experience and process of whole(hearted) teacher development.

Limitations

The purpose of this study was to examine closely the process for whole(hearted) teacher development through a qualitative multi-case study. In qualitative research when the researcher performs as a participant observer, the researcher's relationship with the participants, as well as, the researcher's lenses influence the results of the study. My participation in the study as a participant observer and my relationship with the participants was unique to me and my context and likely impacted the results I found.

Another limitation was the participant selection criteria; I invited teachers who taught reading and language arts in grades Prekindergarten-5th grade to participate in a research study centered on adult learning and literacy. Only teachers who were both willing and interested volunteered to participate in this study. The teachers were asked for their consent before participating in this study indicating that the participants were assumed to be willing and aware of the professional development and research taking place.

Delimitations

The school was selected because of its proximity to the researcher to better facilitate the data collection. Additionally, the school was selected because of my previously established rapport with the teachers, students, and community. I was interested in learning how established teachers responded to professional development built on principles of adult learning and therefore, my target population was in-service teachers. I situated this study in the context of literacy professional development because it was my belief that literacy is a foundational piece of a student's education and critical to teachers' instruction.

Assumptions

This study was born out of my experience as both a teacher and a human being. It was my experience as a teacher that led me to believe that teachers need more than professional development focused on *skills and strategies*. I believe that teachers also need opportunities to develop their ways of knowing through whole(hearted) teacher development.

Definitions of Terms

The following terms are defined the way they are used throughout my study:

Mental complexity—the way in which people organize their thinking such that it influences their behaviors (Kegan & Lahey, 2016)

Professional development—a process designed to improve a feature of teacher practice and/or student outcomes

Shame—the fear of disconnection from others (Brown, 2006)

Transformative learning—a learning process that incorporates a disorienting dilemma, critical reflection, and rational discourse that yields a transformative shift in one's way of knowing (Mezirow, 1991)

Vulnerability—“uncertainty, risk, and emotional exposure” (Brown, 2012, p. 34)

Whole(hearted) teacher development—when teachers grow in how they come to know things, how they understand their experiences, and how they understand and employ shame and vulnerability, and includes the necessary learning environment for the outlined growth

Midwife Teacher—a teacher who helps student develop their existing knowledge by supporting their thinking

Organization of the study

The purpose of this multi-case study was to explore teachers' experiences of wholehearted teacher development. In chapter two, I reviewed the literature of professional development and cognitive development with a specific focus on constructive-developmentalism and mental complexity and how it relates to professional development. In chapter three, I outlined the idea of wholehearted teacher development in my theoretical framework, the researcher's role, the context and population, data to be collected, and analysis procedures. In chapter four, I reported the findings of my study as they relate to the questions I have outlined in this chapter. In chapter five, I discussed the implications of my findings for researchers, teachers, and professional developers.

Chapter Two: Literature Review

Under current educational reform, schools and school personnel are expected to “educate all students to master the complex skills required for success in the economy of the twenty-first century” (Helsing et al. 2008, p. 438). Schools can no longer prepare only a percentage of students with the problem-solving and communication skills necessary for high wage work (Helsing et al. 2008). Instead, they must adapt to the call of educational reform to meet the needs of and prepare *all* students for college or a career of their choice (American Recovery and Reinvestment Act of 2009; Every Student Succeeds Act, 2015). Researchers impart that the best way to make a difference in our schools is through providing professional development to build teacher expertise (Allington & Cunningham, 2007; Darling-Hammond et al. 2009a).

Professional development has traditionally been “designed to initiate change in teachers’ attitudes, beliefs, and perceptions” (Guskey, 2002, p. 382) that, hopefully, results in changes in teachers’ classroom practices and student outcomes. From this perspective, professional development has been viewed from a positivist paradigm as a technical problem that required an explicitly defined solution to be provided to teachers so that they can better meet students’ needs (Heifetz & Laurie, 1997; Little, 1993). Little (1993) called this technical approach to professional development *the training model of PD*. The training model encompassed professional development activities that are used to build knowledge and skills and impart technical classroom practices such as “workshop series, special courses, or in-service days devoted to *transmitting* some specific set of ideas, practices, or materials” (emphasis added, Little, 1993, p. 133). The general belief was that experts could build teachers’ knowledge of effective practices so that teachers would use those practices in their classrooms resulting in improved student outcomes (Kennedy, 1998; Yoon, Duncan, Lee, Scarloss, & Shapley, 2007).

On the downside, however, the training model placed teachers in a passive learner role and assumed there were existing solutions to the challenges teachers face. The traditional training model assumed there is an existing body of expert knowledge that contained the solutions to all teachers' instructional problems.

In contrast, Little (1993) identified *an alternative model* of professional development designed to “engage teachers in the pursuit of genuine questions, problems, and curiosities, over time, in ways that leave a mark on perspectives, policy, and practice” (p. 133). These embedded opportunities to learn furthered the idea of the “teacher as intellectual”, and encouraged teachers to collaborate and come up with “local solutions” embedded with local values (Little, 1993, p. 133). The alternative model to professional development acknowledged that experts have not yet found an explicit solution to all teaching situations and filling teachers up with an established set of practices has a specific and limited impact on changing teachers' practices. The alternative model reconstructs the problem of improving teachers' practice as an adaptive problem, one that does not have an established solution. Improving teachers' practice, then, requires a different approach than the traditional application of best practices (Heifetz & Laurie, 1997). Instead of looking for a silver bullet, educational reformers can be providing supports for teachers to develop both their knowledge and ways of knowing that would allow them to find appropriate context specific solutions. This perspective requires viewing teachers as adult learners who need not only to advance their knowledge and beliefs but to also improve the way they come to know these new things.

Teachers' access to the training model of professional development far outweighed teachers' access to the alternative model of professional development (Little, 1993). Little points out that districts' approaches to professional development “do not appear to capitalize fully on

what we have learned about the importance and variability of local contexts” (Little, 1993, p. 144). Little goes on to point out that instead of selecting alternative models for professional development that align well with reform efforts, schools and districts often select traditional workshop models because they are cost effective, easily implemented, and usually tout research support. Whereas, alternative approaches to professional development can have unforeseeable implementation and costs even if supported by research. Little’s work suggests that even though new ways of professional development have been proposed to support changes in education, in practice, schools and districts continue to select the easy and predictable way to address professional development.

In this review of the literature I examined research on the role professional development has played in advancing teacher practices, as well as, reviewed high quality professional development and its impact on teacher practice. Additionally, I examined the field of adult development specifically looking at constructive-developmental perspective of cognitive development, ways of knowing, transformative learning theory, shame resilience theory, and how these ideas are related to teachers’ professional development.

Professional Development

In the past two decades, researchers have been trying to determine the most effective form of professional development using a positivist framework (Kennedy, 1998; Yoon, et al., 2007; Desimone, 2009). Researchers determined that some preferred outcomes for professional development were improved student outcomes or improved teacher practice and have since used these measures as an evaluative tool to determine the efficacy of professional development. The following studies examined what we know about professional development based on its impact

on student learning and/or teacher practice and stitched together important features of high quality professional development.

The evolution of High Quality Professional Development. Kennedy (1998) reviewed studies of professional development (PD) in math and science that used student outcomes as a measure of effectiveness. She found that the content focus, either teaching new behaviors or new knowledge, and not how the PD was structured had the most impact on student outcomes. Among the studies she reviewed, she noticed four patterns in the content focus of professional development. The professional development either: 1) focused on general teacher behaviors, 2) focused on content specific teacher behaviors, 3) focused on teachers' knowledge of how to teach and what to teach, or 4) focused on teachers' knowledge of how students learned. This study also revealed three paths of influence or models for how the professional development influenced student outcomes. In the first model of influence the in-service program delivered specific practices for teachers to use that would influence student learning. The second model delivered content that impacted teachers' knowledge about teaching along with ideal curriculum and practices that when implemented would impact student learning. The final model established a process where the in-service content impacted teachers' knowledge, however, this time teachers were provided the freedom to select their own practices. Kennedy noted the first model of professional development—the one that emphasized teacher behaviors only—generated limited effects on student outcomes. The average effect size on basic math skills was $-.14$ and $.10$ on reasoning and problem solving. The second model that influenced teachers' beliefs and prescribed behaviors had mixed effects on student outcomes with an average effect size on basic math skills of $.13$ and $.50$ on reasoning and problem solving. The most effective form of professional development provided the “least amount of specific information about what

[teachers] should do in their classrooms and the most specific information about the content to be taught and how students learn that content” and had moderate effect sizes on both basic math skills .52 and problem solving .40 (Kennedy, 1998, p. 19). As a result, Kennedy reported providing teachers with new knowledge and some discretion on how to implement that new knowledge showed the most impact on student outcomes.

One criticism of Kennedy’s (1998) review was that she did her comparison without consideration of the impact of the amount of contact hours on the effects. For example, professional development studies in model 1 showed the fewest amount of contact hours—about 3 hours on average—and also showed very limited effects. When comparing model 3 and 4 studies, PD that focused on how to and what to teach, they both averaged around 150 contact hours and showed mixed effect sizes .13 on basic math skills and .50 on problem solving. However, the studies in group 4 that provided teachers with discretion on how to implement their new knowledge about how students learn relied on approximately 80 contact hours and showed moderate effect sizes .52 on basic math skills and .40 on problem solving. Interestingly, the more effective and less effective studies had similar amounts of contact time revealing the number of contact hours alone is not a good indicator of quality or the lasting impact of professional development.

Similarly, Yoon, Duncan, Lee, Scarloss, and Shapley (2007) reviewed professional development studies looking for rigorous research designs that isolated and measured “the value that professional development adds to student learning” in math, science, and reading and language arts (p. 5). This study only found 9 studies to meet their standards for evidence. For their analysis, they used Kennedy’s content focus classifications to distinguish types of PD offered. They confirmed Kennedy’s (1998) finding of studies that focused on changing teacher

behaviors still only showed limited impact on student outcomes; whereas, studies that focused on teacher knowledge or teacher knowledge *and* teacher behaviors had more substantive and statistically significant effects on student outcomes. They also found that professional development that had more than 14 contact hours had a positive impact on student outcomes. Yoon, et al. closed with a request for future research on the direct effect of professional development on teachers and indirect effect on students. Their study emphasized the importance of professional development consisting of more than 14 contact hours and focused on teacher knowledge when expecting impacts on student outcomes.

In a slightly contrasting perspective, Garet, Porter, Desimone, Birman, and Yoon (2001) identified features of PD—including form, which had been discarded by Kennedy (1998)—that impacted teachers’ practice. In this study, the researchers surveyed mostly math and science teachers about their experiences in professional development and the self-reported impact on their practice. They used six criteria from the research literature to evaluate the effectiveness of professional development: *form* or how the professional development activity was organized; *duration* or the total number of contact hours; *collective participation* of teachers in the same school or district; *active learning* activities that require teachers’ active engagement; *coherence* with teachers’ beliefs, experiences, and context; and the depth of the *content focus*. They found that the six identified features are interrelated and have positive impacts on teachers’ knowledge and skills as self-reported. Specifically, their results indicated that sustained, intensive PD and PD with a specific academic focus, that employs active learning, and is grounded in the school and teachers’ context has a stronger impact on teachers’ knowledge and skills than the alternatives. They also found that PD consisting of teachers within the same context and promoting professional communication has an increased likelihood of changing teachers’

practices. However, there was little evidence of the importance of a professional development's form. A year later these researchers confirmed their previous findings with a report on their longitudinal study of the same features (Desimone, Porter, Garet, Yoon, & Birman, 2002). In this study, they looked more closely at specific contents and the impact on teachers' practices and found that professional development that focused on a specific content, such as technology or assessment, typically resulted in increased use of that feature in teachers' practice (Desimone et al. 2002).

In 2009, Desimone, as a result of her previous research, and Darling-Hammond, Wei, Andree, Richardson, and Orphans (2009a/b) tasked with determining the current status of professional development for teachers in the US and abroad, both submitted separate but similar frameworks for evaluating professional development. Desimone (2009) proposed a framework for High Quality Professional Development (HQPD) that dropped the structural feature *form* as an indicator of effective professional development in favor of the five remaining core features that she suggested transcended discipline and format. According to Desimone, effective professional development takes place across *time*—not just one shot at learning—and includes a *content focus, active learning, coherence, collective participation*. Dropping interest in how professional development is structured correlates with the previous literature about the insignificance of the form and model of professional development. Desimone also placed more of an emphasis on the interactions taking place in professional development as indicators of the effects of professional development. Similarly, Darling-Hammond, et al. (2009a) put forth their version of high quality professional development as professional development that was *sustained*—on average 50 contact hours a year, situated in a collaborative context, and *connected* to teachers' practice as having significant impact on student outcomes. They also

pointed out that effective professional development focused on specific academic content, just as Desimone emphasized a specific content focus. Darling-Hammond et al.'s (2009a) final suggestion was that professional development should allow enough time for teachers to explore, uptake, try, fail, and try again in order to create significant growth in teacher effects and student outcomes. Both proposals for HQPD suggest professional development should have a specific focus, be conducted with peers, be connected to teachers' immediate context, take place across time, and can have a positive impact on teacher effect and student outcomes.

Postholm's (2012) meta-analysis of professional development compared the traditional graduate course approach to teachers' learning with learning through job-embedded professional development, a form of HQPD. She found that both methods of professional development produced teacher learning but "learning that occurs in the school in co-operation with other teachers and school administration that supports social learning is the best way for teachers to develop their own teaching" further supporting Desimone (2009) and Darling-Hammond et al.'s (2009a) outline for HQPD (Postholm, 2012, p. 424). She also emphasized the importance of teachers learning how to learn to help them to continue to develop throughout their teaching career (Postholm, 2012).

In a closer look at High Quality Professional Development in action, Hamre, Pianta, Burchinal, Field, LoCasale-Crouch, Downer, Howes, LaParo, & Scott-Little's (2012) studied the effects of a teacher-student interactions course on teachers' beliefs, knowledge, and practice. The course was designed with HQPD in mind. The teachers were expected to read about and discuss new content, analyze videos of teachers' practice, and discuss their noticings with their peers establishing a professional development that was ongoing, connected to teachers' context, occurred in a group setting, and was focused on a content of teacher-student interactions in

literacy. Based on their extensive pre and post testing of teachers' beliefs, knowledge, and practices, they found that the professional development resulted in positive growth in teachers' beliefs and knowledge. The researchers proposed a change model similar to models previously discussed in this paper: professional development provides teachers with new beliefs, knowledge, and skills that change a teacher's classroom practices which then results in changes in student outcomes (Hamre et al. 2012). However, they found that the pathway between teacher knowledge and teacher practice is not direct; some teachers' beliefs changed although their practices did not.

Based on the previously reviewed research, high quality professional development has a specific focus, takes place in a collaborative group of teachers who actively work together to solve contextual problems across time (Desimone, 2009; Darling-Hammond et al. 2009a). However, the connection between teachers' knowledge, beliefs, and practices is not direct which offers up an entry point into closer examination of the effects of HQPD within a specific content area such as literacy. Next, I will examine what research has found about effects of HQPD in literacy.

What are the effects of and what mediates the effects of High Quality Professional Development in literacy? Richardson (1994) chronicled a large grant funded study of professional development supported by the Office of Educational Research and Improvement. Her study was designed to determine the degree to which teachers use research-based practices and whether HQPD could impact teachers' practices in reading comprehension instruction and, ultimately, student outcomes in reading. The researchers found that implementing a collaboratively planned staff development centered around examining teachers' beliefs and practices created varied levels of changes in teachers' practices and student outcomes during the

implementation year. Richardson (1994) used a designed study that unfolded as a result of an iterative assessment, data collection, and reflection process. The researcher started with a literature review of effective reading comprehension instruction, followed by initial assessment of teachers' beliefs and practices. Then they implemented the professional development that employed Fenstermacher's practical argument, an activity designed to bring tacit knowledge into an individual's awareness for their own reflection, for both individual and group work. As the study unfolded the data collected became part of the PD.

To determine the impact of the PD the researchers collected post-PD teacher belief interviews, classroom observations, and student outcome data. The researchers found that as a result of the HQPD teachers adjusted their theories of reading, their practice, and the way they talked about their practice; the students had improved understandings of reading strategies; and the school context contributed to the amount of teacher effects noticed, but not in the way the researchers predicted. The teachers in the less collaborative school thrived in the collaborative environment of the staff development; whereas, the teachers from the school that showed signs of embedded collaboration resisted the staff development more and took longer to transition into teacher owned staff development. The findings from this study's use of the practical argument suggest that in order to create growth in teachers' literacy practices PD may need to bring to light more than teachers surface level knowledge. Instead, literacy PD may need to look at underlying beliefs, or belief systems.

In a similar study, Taylor, Pearson, Peterson, & Rodriguez (2005) designed a study to determine the school and classroom level factors that impact the effects of a HQPD on student growth. Their homegrown HQPD, The CIERA School Change Framework, incorporated small groups of teachers who met to discuss and research specific issues, watch and discuss videos of

effective practice, share video of their own practice, problem solve, and share own expertise; school wide meetings to discuss data and share the work of study groups; a school-based leadership team; and a website full of resources on research in literacy (Taylor, Pearson, Peterson, & Rodriguez, 2005). In their study of 92 teachers from 13 high poverty schools, Taylor et al. (2005) required the schools form leadership teams consisting of administration and teachers and hold one whole group session and three small group meetings each month across a whole school year. They found that schools with higher levels of implementation of The CIERA School Change Framework showed increased student growth, increased positive teacher response to the professional development, and teachers asked more higher level questions in their practice that was also indicative of stronger instruction. The finding that schools with higher levels of implementation of the framework yielded higher levels of growth indicates the importance of the framework as a whole. Whole staff meetings about data and reporting on small groups would be less effective if small groups were not meeting and/or had nothing to report. In contrast, small groups that are actively engaged in discussion of, evaluation of, and reflection on effective literacy practices could contribute much more to the whole group sessions. Taylor et al.'s quantitative analysis leaves to the imagination exactly what pieces of the framework were most important to the yielded changes.

In a study designed to examine how best to improve student outcomes in literacy, Scanlon, Gelzheiser, Vellutino, Schatschneider, and Sweeney (2008) compared the effectiveness of professional development and instructional intervention. Their study was designed to determine the most effective way to reduce the number of students who were considered at risk in reading by the end of kindergarten by comparing three treatments intended to improve student outcomes: expert intervention only (IO), professional development only (PDO) focused on the

interactional strategies approach (ISA), and a combination of expert intervention and professional development in ISA (PD+I). As a result of the student outcome measures, the researchers found that all interventions (IO, PDO, PD+I) positively impacted *all* students' outcomes whether they were initially at risk or not. However, the researchers noticed differences in the three conditions during the baseline year, before any treatment, which caused them to analyze the teachers' instruction from their pre-observation data for any indicators of existing patterns. They found that before the study began the teachers in the IO condition dedicated less time to reading language arts instruction and significantly less time to small ability group instruction. The children in IO classrooms spent less time thinking and responding and working with the alphabetic code. These differences indicate the IO teachers were less effective teachers to begin with and most likely interfered with the treatment effects which made the researchers uncomfortable with drawing conclusions about the size of the impact. Considering the positive findings and confounding variables, the researchers did suggest that future efforts to improve instruction should begin with professional development to build teacher knowledge. Their study, however, did not illuminate exactly what parts of literacy professional development mediate changes in teachers' practices.

Lai, McNaughton, Amituanai-Toloa, Turner, and Hsiao (2009) studied whether teachers, when provided High Quality Professional Development in literacy, could accelerate students' literacy development as evidenced by student outcomes. This study took place across three years and implemented professional development on reading instruction. The professional development was situated in a Professional Learning Community (PLC) of teachers and administrators within the seven participating schools and was therefore connected to teachers' immediate context. In the first phase, teachers collaborated with their peers to frame the existing

problem in reading and examine existing practices in reading instruction. These practices required teacher learning to take place within a group setting. The next phase provided 10 sessions of professional development focused on theory and practice for reading comprehension. The final year teachers continued to participate in the PLCs, receive professional development, and at the end of the year the teachers were tasked with presenting what they had learned for other teachers at a teacher led conference. The results of this study found that the PD supported teachers to be able to accelerate students' literacy development and left unanswered the explicit processes of the PD interactions that generated the documented advances in students' literacy development.

According to the reviewed literature, high quality professional development in literacy produces varied growth in teachers which can be dependent upon the group's level of implementation of the professional development and/or initial teacher effectiveness. The majority of the research focused on examining effectiveness of HQPD frameworks. However, after closer examination of literacy focused HQPD, researchers have not pinpointed what exactly occurs in the interactions of HQPD that generates desired impacts.

Until now, professional development has not embraced adult development researchers' discovery of patterns in the ways people make meaning as a potential explanatory tool for how to generate changes in teachers practice. By understanding and applying the patterns in how people make meaning to future research on professional development, researchers stand to gain a more explicit understanding of the interactions necessary to generate changes in teachers' practice. In the next section, I will review literature on adult development and how it relates to the processes of teachers' growth and professional development.

Adult Development

Professional development has traditionally focused on changing teachers' knowledge, beliefs, and practice with an eye to improve student outcomes, but has not yet examined changes in teachers' behaviors as a function of individuals' cognitive development. Cognitive development is a domain in the field of adult development. Adult development includes: physical, cognitive, and psychosocial development. Cognitive development refers to growth in a person's mental activities such as their thinking and decision-making processes, language use, things individuals notice, and how individuals solve problems (Zeigler, 2014). The study of cognitive development began with Piaget's fascination with how children's logic and reasoning varied when examining their developing intelligence (Dimitriadis & Kamberelis, 2006). Piaget's work led him to posit that individuals learn by being an active agent in their environment. He found that when individuals experience new things they are forced to explain these new experiences by either assimilating the experience into their existing understanding or by accommodating, making room, for the new experience. Piaget then labeled the patterns of how individuals reorganized their embedded environment leading him to establish developmental stages (Dimitriadis & Kamberelis, 2006; Kegan, Noam, & Rogers, 1982). Many social-cognitive theorists have furthered Piaget's work and examined relationships between self and emotions resulting in new understandings such as moral development (Gilligan, 1978; Kohlberg, 1969); spiritual development (Fowler, 1981); concepts of self (Broughton, 1978); and role taking theory (Selman, 1980) leaving the field with several qualitative distinctions for each stage of development.

Piaget, however, left the origin of cognitive and emotional experience unexplained (Kegan, Noam, & Rogers, 1982). One group of cognitive development researchers, Kegan and

colleagues, worked to further Piaget's and Neo-Piagetian work by looking across the theories for clues to the origin(s) of thought and emotions (Lahey, Souvaine, Kegan, Goodman, & Felix, 1988; Kegan, 1982, 1994; Kegan & Lahey, 2009, 2016; Kegan, Noam, & Rogers, 1982). These researchers found that instead of thought bringing emotion or vice versa, cognitive and emotional experiences are established by both "the contents of experience" designated as what one holds *object* and by "the organizing principal in experience" designated as what one is *subject* to (Kegan, Noam, & Rogers, 1982, p. 107). Constructive-developmentalism, Kegan and colleagues' posited theory, consists of shifting one's way of knowing through the continual adjustment of that which one holds object, can examine, see and experience, and that which one is subject to, understands as organizing the experience, is not in control of (Kegan, Noam, & Rogers, 1982; Popp & Portnow, 2001). According to constructive-developmentalism, a change in an individual's way of knowing is often a response to the increasing complexity of the world.

The significance of constructive-developmentalism is that in each new way of knowing a person establishes a new relationship between the world and the self, yielding a new way to experience, understand, and interact with the world. According to Piaget, an infant, for example, is born into the sensorimotor stage where they experience the world through their senses. Regarding the origin of the infant's thoughts and feelings, their way of knowing, Kegan, Noam, and Rogers (1982) posited the infant is subject to her reflexes and holds nothing object because the infant's experience is her reflexes. Then as the infant progresses (ages 6 months-24 months) she begins to hold object her reflexes as something she can control. The infant slowly becomes subject to her impulses and perceptions and as she develops the ability to "hold in [her] memory [her] own experience (to have it, rather than be it!)" she demonstrates object permanence, an understanding that an object exists even when out of sight (Kegan, Noam, & Rogers, 1982,

p.110). In addition, developing separation between what the infant is subject to and what she holds object reconstructs the infant's emotional experience. As with development at any stage, transformation yields feelings of loss and disequilibrium. In the infant's case she begins to feel the loss of "Mother is not me?", leading to separation anxiety. Then when the infant finally experiences the mother as separate, the separation protesting stops (Kegan, Noam, & Rogers, 1982). An individual's way of knowing determines how a person will make meaning of a situation and influences how the person will operate in an environment.

Kegan and Lahey (2009, 2016) employed constructive-developmentalism to help them label the patterns among adults' ways of knowing as levels of mental complexity. As indicated in constructive-developmentalism, advances in an individual's mental complexity yield new ways of understanding and defining problems, different options for interacting, understanding, and valuing others, and improves an individual's ability to meet the demands of increasingly complex jobs (Helsing, Howell, Kegan, & Lahey, 2008). Egiel (1998), for example, compared Senior Executive Leaders' (CEOs') effectiveness and level of mental complexity and found that the higher CEOs' level of mental complexity the more likely they would exhibit high levels of effectiveness in their complex job. If teachers—whose job is also increasingly complex, were encouraged to develop their mental complexity, their potential for change and growth could increase exponentially. Professional development research should be focused on promoting cognitive development *alongside* developing teachers' knowledge, skills, and practice.

As a result of her study designed to examine adult growth inside schools, Levine (1989) called for a shift in existing professional development practices citing, "the most effective forms of staff development begin with the *self*" (emphasis original, p. xv). A new look at professional development from the perspective of cognitive development has the potential to transform the

quality of teacher growth. Incorporating cognitive development promotes growth in teachers by helping:

Individuals...often unaware of how their expectations and underlying assumptions affect their actions...become aware of the limited or disoriented beliefs that frame their behaviors [so] they can begin to change their actions in lasting ways and across a whole variety of situations, to meet their intended goals successfully. (Helsing, Howell, Kegan, & Lahey, 2008, p. 458)

Teachers need to be aware of their own beliefs and understand how their beliefs mediate their actions to create lasting changes in their practices.

In this next section, I will review two perspectives on ways of knowing: Kegan and Lahey's (2016) concept of mental complexity and Belenky, Clinchy, Goldberger, and Tarule's (1997) *Women's Ways of Knowing*, that looks specifically at how women come to know things with the goal of more appropriate educational conditions for women. I will examine Mezirow's (1991) Theory of Transformative Learning as a process designed to transform a person's way of knowing. Finally, I will examine shame, an emotional barrier to cognitive development, Shame Resilience Theory an approach to overcoming shame as a barrier to development, and vulnerability and its role in promoting transformative growth in an individual's way of knowing (Brown, 2006).

Constructive-developmentalism and mental complexity. Kegan's theory of constructed-developmentalism explains how individuals' understanding of experience progresses across their lives through the plateaus of mental complexity. Kegan and Lahey (2016) posited that, over time, a human's construction of reality gets "more expansive, less distorted, less egocentric, and less reactive" (p. 58) indicating a pattern of cognitive development that is

common across all humans regardless of gender, ethnicity, social class, and culture. Cognitive development was originally thought to end after adolescence similarly to a human's physical development; however, with improved technology, brain-researchers helped identify the brain's capacity to continue to develop throughout the adult life. Adults' mental complexity has a progression of three developmental plateaus that adults have the potential to reach: the socialized mind, the self-authoring mind, and the self-transforming mind (Kegan & Lahey, 2009, 2016). Mental complexity employs plateaus because cognitive development is dynamic and variable, individuals progress through the levels of mental complexity at their own rate (Kegan & Lahey, 2016). Each of the plateaus of mental complexity illustrates an advance in how people make meaning from life.

The socialized mind is the first plateau an adult enters and is marked by understanding one's self in relationship to others and defines the self by the expectations and labels externally provided. The socialized mind holds object their needs, interests, and wants and is subject to interpersonal mutuality or the idea people are "made up" by those around them (Kegan, Noam, & Rogers, 1982). The socialized mind feels empathy and also feels responsible for other people's feelings (Popp & Portnow, 2001). The socialized mind's thinking and behavior is often limited to thoughts and actions logically consistent with established identifiers. A person with a socialized mind is a team player who operates in obedience to authority. They are typically concerned with doing what others expect of them and are easily influenced by "groupthink" (Kegan & Lahey, 2009, 2016). The socialized mind seeks alignment with important others so much so that it will attend to its own *imagined* subtext of messages sent and received that misleads the socialized self to make inaccurate inferences. A person with a socialized mind views criticism as destructive to the self and conflict as a threat to their shared reality (Popp & Portnow, 2001).

In contrast, the next level of mental complexity is the self-authoring mind which is subject to authorship, identity, and ideology and holds object interpersonal mutuality (Kegan, Noam, & Rogers, 1982). The self-authoring mind is so called because at this level of mental complexity, individuals think about and evaluate the expectations placed on them and do not adhere to labels blindly. The self-authoring mind is defined by its own internal authority, operates from its own belief system or ideology, and is able to “self-direct, take stands, and create and regulate its boundaries on behalf of its own voice” (Kegan & Lahey, 2016, p. 63). The self-authoring mind creates its own agenda that it uses to filter incoming information typically dismissing conflicting information. The self-authoring mind is unable to examine his or her established filters and may miss incoming information that was dismissed as not aligning with current held beliefs. The self-authoring mind understands others as autonomous, holds multiple emotions simultaneously, receives criticism as one perspective and not necessarily destructive, and is able to prioritize conflicts (Popp & Portnow, 2001).

The third and final level of mental complexity is the self-transforming mind which holds object authorship, identity, and ideology and is subject to “interpenetrability of self-system”, meaning the ability to examine one’s own systems (Kegan, Noam, & Rogers, 1982). The self-transforming mind is so named because it represents an individual who understands that any belief system or ideology has limits. A person with a self-transforming mind also has the capacity to reflect on the limits of their own belief system and others’ belief system(s) and holds an appreciation for investigating the truth or truths of a situation. The self-transforming mind both values and is cautious of an approach, analysis, or agenda; uses and examines filters established for information; and is able to accept conflicting information and see multiple sides of an issue.

With the increasing complexities and frequently rapid changes of today's workplaces, modern employees need increased mental complexity to manage complexity efficiently (Helsing et al. 2008; Kegan, 1994). Currently, the majority (approximately 66%) of adults beyond adolescence either have or are approaching a self-authoring mind; in contrast, less than one percent of adults reach the self-transforming plateau (Kegan & Lahey, 2016). In a study of leadership effectiveness and cognitive development, researchers compared the cognitive development and effectiveness of leadership of midlevel managers and board-elected executive officers of diverse top-level public companies (Eigel, 1998). The researchers found a typical distribution of cognitive development for the midlevel managers. In contrast, they found that the highly-effective CEOs all scored above the socialized plateau, with most of the successful leaders scoring at and above the self-authoring plateau indicating that extremely effective and successful leaders are very likely to hold more advanced levels of cognitive development (Eigel, 1998). Eigel's (1998) work also found that effective CEOs were best able to meet the needs of today's dynamic environments as they reached the self-transforming level of cognitive development. In education, the conditions are rapidly changing and teachers are dealing increasingly with complex, dynamic issues. Eigel's work suggests that teachers—who are situated in complex environments—would also benefit from increased levels of mental complexity. Addressing cognitive development through professional development is a solution to furthering the effects of traditional professional development.

In a study of how extremely effective principals were successfully supporting their teachers' cognitive growth and development, Drago-Severson (2007) collected documents from and conducted interviews with 25 school leaders from diverse settings to identify practices that support teachers' cognitive development. She found four practices that principals used to support

teacher development: 1) teaming—having teachers work together either to teach or solve a problem, 2) leadership roles—placing teachers in leadership roles such as department chair or team leader where they have an increased level of responsibility, 3) collegial inquiry—where teachers worked together to investigate some part of instruction, and 4) mentoring—where teachers act as mentors for either new teachers or pre-service teachers. These four practices created space for teachers to work together, openly communicate, share ideas and practices, and gain understandings of various perspectives that can lead to teachers examining their own beliefs and practice resulting in growth in cognitive development.

However, the current culture in education conflicts with positive functioning of these outlined practices. The atmosphere in most schools today reveals a reactionary, expectation of compliance, and isolating culture (Wagner, Kegan, Lahey, Lemons, Garnier, Helsing, Howell, & Rasmussen, 2006). Many local policies are set in place in reaction to external forces such as federal and state policies, media fueled concerns, or local agendas producing an overrun priority list and limited resources to dedicate to the response. Additionally, the overloaded priority list tends to produce a “culture of compliance” (Wagner, et al., 2006, p. 68) where principals and teachers are expected to comply with new policies and mandates as a streamlined form of problem solving. The expectation of compliance, however, removes teacher and principal voices and associated autonomy in the happenings of local schools. Finally, schools have been traditionally isolating where teachers often teach by themselves with limited supervision and collaboration (Lortie, 1975). The tradition of isolation can be appealing to teachers and principals as they can interpret isolation as a form of freedom. Therefore, the features of current school culture run counter to Drago-Severson’s suggestions for adult development. If the four practices—teaming, leadership roles, collegial inquiry, and mentoring—were implemented

among the extant culture they would not have the desired effect. Instead, these practices require a safe and supportive environment, paired with knowledge and understanding of adult development. This new environment would generate an entirely new approach to professional development—whole(hearted) teacher development. Next, I review the limited mental complexity research that has been done to determine how mental complexity has been applied to teachers.

Teachers' mental complexity. In Fantozzi's (2010) dissertation on student teachers' mental complexity and how it mediates their student teaching experience, she found that the four participants' variation in their mental complexity paralleled the variation in their interpretation of student teaching and their behaviors during student teaching. Specifically, their mental complexities influenced what the student-teachers' identified as stressors and how the student-teachers were able to solve problems. One participant who was on the socialized plane valued relationships and reactions of others when making meaning of her experience. For example, when thinking about her own teaching practice, she viewed her ability to establish a strong rapport with one of her classes as evidence of her being a good teacher. The fact that the students liked her and respected her established herself as a successful teacher in that class in her experience (Fantozzi, 2010). However, this was the only section of classes that she had established a strong rapport with, indicating to her that she was not a good teacher in the other classes. This student teacher's internal conflict was a stressor throughout her student teaching experience.

A different participant was in transition between a socialized mind and a self-authoring mind, she referred to her students as actors in her teaching. When she was trying to figure out the best instructional methods for her inclusion class she judged the effectiveness of the methods

based on how the students responded to the lesson and not whether the students liked her (Fantozzi, 2010). Looking at how the students responded to the lesson is a stronger judge of the effectiveness of a lesson and provides more accurate feedback to the student teacher. Her level of mental complexity mediated her more successful approach to adjusting her practice. Whereas, the first student teacher discussed above had very little evidence of how to improve her instruction based on which classes liked her. These two contrasting approaches to interpreting student teachers' own effectiveness provide an illustration of the resources available to each teacher for understanding her experiences and problem solving how to improve her practice based on her mental complexity. As a result of her study, Fantozzi suggests further research on the relationship between an in-service teacher's mental complexity and growth and development.

In another dissertation, Smith (2011) used Kegan's constructive-development model to compare how experienced, exemplary teachers define "teaching". Smith defined experienced, exemplary teachers as those who were recent qualifiers for the Pennsylvania Teacher of the Year award with at least 10 years' experience. Smith found of the 21 participants the majority (14) of them employed the self-authoring lens with the remaining participants distributed among socialized (2), socialized with hints of self-authoring (2), self-transforming (2), and one remaining unidentifiable case.

Smith (2011) posited that experienced, exemplary teachers who operated with the socialized lens relied on outside sources for validation of their work and their students' growth. Imposed standardized assessments, for example, or feedback from administration, colleagues, parents, and even from schools their students attended later in life—defined teachers with a socialized mindset's success as a teacher. Teachers with a socialized mindset also relied on outside sources such as the school culture and the provided curriculum for what and how to

teach. In contrast, teachers who showed hints of or were fully relying on the self-authoring lens often wrote their own curriculum and valued individual growth as a measure of student learning. They also believed their job was to develop the students along with their skills and knowledge and often taught with knowledge of both the curriculum and student and adult development (Smith, 2011). Teachers with a self-authoring mindset appear to employ more of their own professional judgment when making instructional decisions which is necessary in today's educational climate of meeting all students' diverse needs.

Smith's findings, however, considering research on exemplary teachers, bring up some questions about what qualifies a teacher as exemplary. For example, Allington, Johnston, and Day's (2002) work on exemplary teachers found that the most effective teachers evaluated student work based on students' efforts and their improvement instead of achievement. In Smith's study, some of the teachers, who held a socialized mind, relied on outside sources such as standardized assessments or other authorities as evidence of their students' growth. The contrast between Allington et al.'s exemplary teacher and Smith's exemplary teacher causes one to wonder if teachers identified as exemplary teachers through the teacher of the year process are truly exemplary teachers who accelerate students' development. Allington et al. (2002) and Taylor Peterson, Pearson, and Rodriguez (2002) also argue that exemplary teachers use methods to show students what the thinking process looks like and to be aware of how they come to know something. Similarly, Smith (2011) found self-authoring teachers encouraged students to question how they know something. Illustrating thinking is not a common practice among teachers using the socialized lens, calling into question whether teachers identified by the teacher of the year process and employing the socialized lens can truly be considered exemplary.

The above dissertations applied a constructive-development lens to pre-service and in-service teachers. Fantozzi (2010) found that pre-service teachers' level of mental complexity appeared related to their stress levels during student teaching and to the way they framed and solved problems. Smith's finding that in-service teachers' level of mental complexity influenced how they defined their role as a teacher, how they planned for instruction, how they defined success, and how they solved problems reinforced Fantozzi's work with pre-service teachers. Smith also found that most exemplary teachers defined as candidates for Teacher of the Year relied on a self-authoring lens which suggests that in order to meet the high demands of the modern educational climate teachers need at least a self-authoring mindset to be both effective, efficient, and less stressed. Smith's study also surfaces a question as to whether exemplary teachers as defined by Allington (2002); Johnston (1987); and Allington, Johnston, and Day (2002) also possess advanced levels of mental complexity.

Women's ways of knowing. Another approach to examining a person's epistemology, in this case specifically for women, is Belenky, Clinchy, Goldberger, and Tarule's (1997) theory of *Women's Ways of Knowing (WWK)*. Belenky and her colleagues set out to determine how best to educate women. These researchers noticed that many women were not satisfied with their educational experiences in traditional educational institutions. The researchers wanted to know how an educational system could better serve women and what were women's specific educational needs. Belenky et al. found that women had distinct ways of knowing (see Figure 2 for comparison of mental complexity and *WWK*). Interestingly, I found that Belenky et al.'s ways of knowing for women were slightly more nuanced yet also a mirror for Kegan and Lahey's concept of mental complexity. Even more useful, Belenky et al. provided critical conditions for how to better meet women's needs for education.

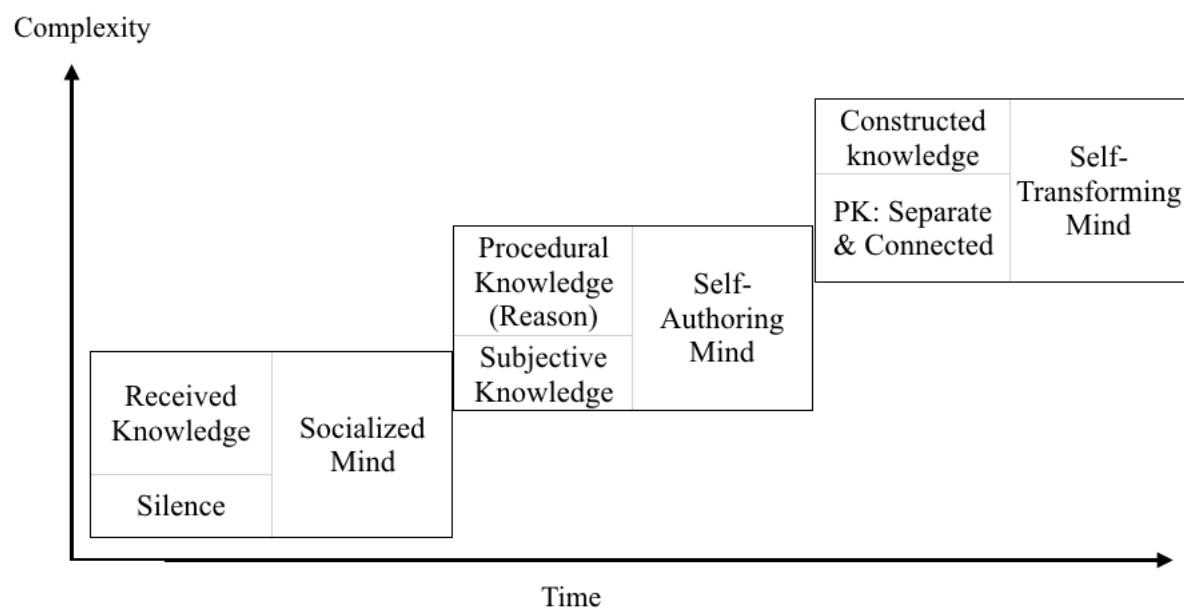


Figure 2. Mapping Mental Complexity onto Women's Ways of Knowing

The first way women come to know things is the opposite of a woman actually knowing anything, a woman's silence. In this way women see themselves as incapable of knowing things and only those around them know things. The next way a woman can come to know something is through receiving knowledge. In this way of knowing women receive knowledge from experts and are also able to share the same exact knowledge they receive without additions of opinion or experience because of a belief that they are not able to create knowledge themselves. These two ways of knowing are similar to the idea of socialized mind where a person behaves in a way that reflects how those around her have labeled her which provides authority to those outside of the self.

Women possess subjective knowledge as the next way of knowing. In this way of knowing, women believe that knowledge is personal and based on personal experiences and personal truths. At this level of knowing women understand that authorities can be wrong, further emphasizing the reliance on the self and experience for truth. Also, women at this level of knowing are typically unable to reflect on the self. This way of knowing is consistent with a person in transition to Kegan and Lahey's (2016) self-authoring mindset that operates in line with one's own belief system. Relying on subjective knowledge and holding a self-authoring mind results in a blindness to other truths outside of a woman's personal truth derived from her experience.

The next way of knowing is through procedural knowledge, in this way of knowing women embrace logic and begin thinking about their thinking. During this phase women can begin using empathy to understand how others are thinking about things as well. Beginning to use think about and evaluate one's own thinking is indicative of transitioning out of the self-authoring mind and towards but not yet to the self-transforming mind. These women are starting

to see that there could be other sources of truth besides her personal experience and belief system.

The last and final way of knowing is through constructed knowing. A woman who learns through constructed knowledge knows that she is part of the learning, that she holds lenses through which she learns new things and is able to examine those lenses apart from herself. She knows that all knowledge is subject to the context in which it is held and that truths need to be considered with their context and frame of reference consistent with Kegan and Lahey's self-transforming mind. Constructed knowing and the self-transforming mind produce a person who operates in full awareness that she may possess biases and blind spots, that other people may hold truths in conflict with her own truths and an appreciation for diverse perspectives.

Women's unique ways of knowing are fostered by a set of conditions that are contrary to traditional models of education. Belenky et al. (1997) found that in traditional educational settings women are expected to be nice, compliant, and followers and these expectations typically stunted women's learning. Women's educational needs lie in contrast with men's preference for opposition, challenge, and an expert teacher. Instead, a woman requires a supportive community to validate her knowledge and ability. When asked about learning experiences that produced the most learning, women recalled more experiences where the teacher supported them in figuring out and identifying what they already knew, situations where women set their own learning goals, and times where the teacher performed like a midwife, helping students produce their own ideas "making their own tacit knowledge explicit and elaborating on it" (Belenky et al. 1997, p. 217). When acting like a midwife, the teacher or facilitator has "to trust each student's experience, although as a person or a critic she might not

agree with it” (p. 227) and try to connect with each student’s point of view. The facilitator must support women’s need for validation in their own knowing and ability.

Research has examined teachers’ ways of knowing using the *WWK* framework illustrating the importance of incorporating women’s ways of knowing into professional development. Llorens (1994), for example, examined a traditional form of professional development—action research—and discovered its ability to silence teacher voice, which in turn minimized the positive effects of using action research as professional development for teachers. Llorens illustrated how the conditions of action research worked counter to most women’s educational needs. Lloren’s work illustrates the importance of considering women’s distinct ways of knowing when seeking to kindle women’s potential for growth.

In another study examining preservice teachers’ ways of knowing, Sutton, Cafarelli, Lund, Schurdell, and Bichsel (1996) conducted interviews with 32 preservice teachers and found that preservice teachers’ ways of knowing are context specific, in that a teacher can hold one level of knowing in one setting and a different level of knowing in another. The researchers also found that students can only operate on their highest level of knowing with proper emotional supports such as meeting their need for confirming their ability to learn and know and valuing their individual knowledge over competition. In addition, Sutton and her colleagues found preservice teachers reported peer interaction most often supported their development. Sutton et al.’s findings illustrate the importance of supporting teachers with consideration of women’s unique ways of knowing including emotional support.

In a study that examined teachers who underwent a media literacy course—a form of professional development, Deal, Flores-Koulish, and Sears (2010) found that teachers in the course typically fell into either one of two categories: a dualistic/subjective knowing frame or a

constructed knowing frame. Further they found at the completion of the course, teachers with a dualistic/subjective knowing frame held limited understandings of the purpose of media literacy, either liked or disliked media texts, and struggled with non-traditional viewpoints of media and literacy. In contrast, their constructive knowing peers viewed media literacy as expanding the concept of literacy to include deconstructing the messages in a variety of media. Deal et al.'s findings suggest that a teacher's way of knowing influences the value they place on items, their interpretation of information, and how they implement instruction and new ideas.

These studies' findings illustrate the importance of creating a learning environment that supports women's development in their ways of knowing. If professional development efforts do not consider women's specific needs, female teachers will not reach their full learning potential (Llorens, 1994). When planning teachers' professional development, women specifically need a supportive group headed up by a facilitator and appropriate emotional support, i.e., validation, to grow professionally and or personally.

Transformative learning theory. Transformative learning occurs when people make changes to their epistemology, i.e., their ways of knowing, and their resulting practice (Kegan, 2000; Mezirow, 2009). Transformative learning requires a reflective process that upsets current understandings and provokes change in future action. Mezirow (1996) posits that people have transformational learning experiences by either adding to current understandings, gaining new understandings, or changing existing understandings. According to Mezirow (2009) transformative change has ten potential phases:

1. A disorienting dilemma
2. A Self-examination
3. Critical assessment of assumptions

4. Recognition of a connection between one's discontent and the process of transformation
5. Exploration of options for new roles, relationships and action
6. Planning a course of action
7. Acquiring knowledge and skills for implementing one's plan
8. Provisional trying of new roles
9. Building competence and self-confidence in new roles and relationships
10. A reintegration into one's life on the basis of conditions dictated by one's new perspective. (Mezirow, 2009, p. 19)

Although there are ten potential phases of transformative learning, only the three identified phases are required for transformative learning to take place. The first required piece for transformative learning is a disorienting dilemma—an event that causes individuals' thoughts and knowledge to be in conflict. The disorienting dilemma can result in confusion and a need to reconcile knowledge and thinking. Following the disorienting dilemma, a person can consider alternative perspectives through critical reflection or resume their previous way of thinking. Critical reflection has been defined by researchers as identifying problems of practice, issues, or dilemmas of thought and examining surrounding assumptions or lenses through which one interprets the problem, issue, or dilemma (Dewey, 1912; Schon, 1983; Day, 1993; Zeichner & Liston, 1996). Critical reflection, a reflection upon the *premise* the problem relies on, leads to questioning a person's assumptions around that strand of thought (Mezirow, 1991; Kreber, 2004; Merriam, 2004; Taylor, 2007). Critical reflection is the vehicle that transforms meaning structures in the mind (Mezirow, 1996); therefore, critical reflection permits change in thinking and promotes change in action. When the individual chooses to consider alternative viewpoints, they will require a form of rational discourse to bridge their disorientation to actualized change.

Rational discourse is a place to discuss and evaluate understandings and meaning; it is a place to challenge current held beliefs and understandings, to listen to alternative viewpoints, share collective experiences, and arrive at consensus (Mezirow, 1997; Merriam, 2004). The three necessary phases provoke change within an individual by uncovering deeply held beliefs which act as filters that mediate behaviors resulting in increased mental complexity.

Mezirow's research was grounded in examining the experiences of non-traditional female students who were returning to college later in life. His findings were then limited to examining the process they experienced. Taylor (2000), in contrast, looked at how to intentionally support transformative learning. Taylor and colleagues reached out to a variety of adult educators to determine how they teach in a way that supports transformative learning (Taylor, Marienau, & Fiddler, 2000). Taylor found that though teachers wanted their students to grow developmentally they could not guarantee their growth. Therefore, teachers would plan activities with developmental intention. Taylor determined that activities with developmental intention required learners to "articulate their existing beliefs, try out new ideas, and explore the contradictions that may ensue" (p. 166). Activities with developmental intention, therefore, use students' ideas as a jumping off point and, oftentimes, any hidden assumptions rise to the surface and encourage self-questioning (Taylor, 2000).

The process of transforming an individual's epistemology is challenging because it means changing the way people think. Transformative learning is, therefore, often met with resistance in the form of emotional barriers. In the next section, I will examine shame—a barrier to cognitive development—and Shame Resilience Theory a theory that supports peoples' overcoming this barrier to cognitive development.

Shame and shame resilience theory.

“There are times when you can ask questions or challenge ideas, but if you’ve got a teacher that doesn’t like that or the kids in the class make fun of people who do that, it’s bad. I think most of us learn that it’s best to just keep your head down, your mouth shut, and your grades high.” (middle school student as cited in Brown, 2012)

When considering how best to help teachers learn and develop professionally, I decided to look at what could be standing in the way of growth. The quote above captures the essence of roadblocks to learning. Especially when working to promote individual’s cognitive development, asking questions and challenging ideas are necessary parts of learning, growth, and development. However, when people do not value risk taking to the point of making fun of those taking risks they are employing shame which stands in the way of growth, development, creativity, innovation, joy, and belonging by blocking people’s ability to be vulnerable (Brown, 2012).

Brown (2006) interviewed over 200 women about shame—how it functioned, what it was—seeking a clearer understanding of how “the master emotion” that generates emotional distress operates (p.43). She learned that shame is “an intensely painful feeling or experience of believing *we are flawed* and therefore unworthy of acceptance and belonging” (emphasis added, Brown, 2006, p.45). Brown found that American society fosters shame through the promotion of “scarcity”—the idea that we, as individuals, are not enough, not good enough, not thin enough, not smart enough. Scarcity breeds comparison among people and awareness of what a person lacks inciting feelings of shame (Brown, 2012). Shame causes people to experience trapped, powerlessness, and isolation woven together to create an extremely powerful, complex line of thinking that is difficult to overcome. Unchecked shame results in disengagement from the

culture or social organization resulting in people who suffer from isolation, depression, and anxiety, among other complications.

Brown found some people were less subject to scarcity's effects and held a "wholehearted perspective". Wholehearted people combat scarcity with the thought, "I am enough". People without wholeheartedness experience more shame and an aversion to vulnerability. When people are *unable* to be vulnerable in an organization they become disengaged with the entity. Disengagement results in keeping to yourself, not taking risks, and running on social autopilot. Disengagement breeds isolation and closes collaboration and learning. People can work very hard to avoid being vulnerable and being subject to the painful parts of life, especially when they are burdened with shame. The results of not dealing with shame appropriately are large social and emotional losses for individuals and organizations.

Vulnerability is the key to adult development, and shame stands in the way of people's vulnerability. However, Brown found a solution to help people properly deal with shame so that they can become vulnerable and experience courage, belonging, creativity and connection. She calls it Shame Resilience Theory. Shame resilience requires individuals to 1) acknowledge their vulnerability and 2) have a critical awareness of shame. People need to know what shame is, how it operates in the human experience, and what triggers it so that they can begin to recognize shame at its onset. Once people can identify shame, 3) they need to talk about it. People need to tell someone they have an empathetic relationship with about their experiences with shame. Brown (2006) points out shame's painful web of thinking is broken down by sharing our experiences with shame. Talking about shame with someone else creates a connection with someone, whereas shame operates a fear of disconnection. These two ideas cannot exist at the same time, therefore, when someone makes a connection over shame they are combating

shame's consequences. 4) Talking about shame with an empathetic friend can also help deconstruct shame and its powerful hold. When people use shame resilience they create space for them to be vulnerable, the necessary entryway to growth and development.

Vulnerability is fertile ground for adult development. A person's willingness to become vulnerable functions as "the cradle of the emotions and experiences that [humans] crave. Vulnerability is the birthplace of love, belonging, joy, courage, empathy, and creativity" (Brown, 2012, Ch. 2, para. 3). Being vulnerable requires expecting and embracing pain and joy as normal parts of life. People face many obstacles in the human experience that make being vulnerable hard; however, being vulnerable is the key to growth and development. Vulnerability requires trust and trust relies on the absence of shame. Being vulnerable means we are being honest with ourselves and taking risks that we will learn from.

As mentioned previously, people need to make connections with others who they share an empathic relationship with. A mutually empathic relationship is one where both parties can find and offer empathy. Empathy is the "ability to perceive a situation from another person's perspective" (Brown, 2006, p. 47). People build this type of relationship by taking emotional risks and sharing their experiences with shame. Through nonjudgmental dialogue about each other's shame experiences, the participants in the mutually empathic relationship begin to see how common their feelings and experiences truly are.

Shame resilience theory illustrates how teachers can become resistant to shame that interferes with creativity, risk taking, and collaboration. If unchecked, shame will prevent growth and cognitive development. Instead, teachers need the tools of shame resilience theory to increase their willingness to be vulnerable, creative, interactive, and collaborative. Teachers especially need to overcome barriers to their own cognitive development. To my knowledge

there are no studies using Brown's shame resilience theory with teachers and/or in the context of professional development.

Summary of the Chapter

As identified above, most jobs include increasingly complex demands requiring increased levels of mental complexity or ways of knowing. Teaching is no different! Teachers operating below a self-authoring mindset will face more struggles and stresses as their job and their understanding of the world become more in conflict (Kegan, 1994; Kegan & Lahey, 2016). Traditionally, teachers' professional development (PD) has worked to develop teachers' skills and abilities; however, it has neglected to also develop teachers' cognitive abilities that have the potential to transform teachers' instructional practices. Future work in teachers' professional development should examine the interactions within professional development that contribute to cognitive development.

In order to develop teachers' cognitively, PD should employ transformative learning to advance teachers' mental complexity and create the necessary educational environment women require because of their unique ways of knowing. PD should also incorporate shame resilience theory to establish a safe and supportive learning community where deep growth and development can take place. PD would then be focused on providing a new kind of growth and development, I termed whole(hearted) teacher development that focuses not on the new skills teachers learn but on their cognitive growth, shame resilience, and transformative learning.

To my knowledge no current studies marry Kegan and Lahey's theory of mental complexity and Mezirow's theory of transformative learning to promote growth in teacher's mental complexity, with the learning environment suggested by Belenky et al. (1997) and the support of Brown's (2006) shame resilience practices.

Chapter Three: Methodology

In response to the research reviewed in chapter two, I designed a qualitative multi-case study to examine teachers' experiences of whole(hearted) teacher development. In my theoretical framework, I outline my theory for whole(hearted) teacher development. In the methods section, I outline the rationale behind my qualitative multi-case study, as well as, the researcher's role, context, participants, data to be collected, and data analysis methods.

Theoretical Framework

My dissertation work was informed by integrating the work of Kegan and Lahey (2009, 2016); Belenky, Clinchy, Goldberger, and Tarule (1997); Mezirow (2001); and Brown (2006) to establish whole(hearted) teacher development. The idea of whole(hearted) teacher development relies on Women's Ways of Knowing to outline conditions for learning (Belenky et al., 1997) and transformative learning as the process for a shift in teachers' ways of knowing (Mezirow, 2001) which results in increasing teachers' mental complexity (Kegan & Lahey, 2016).

Whole(hearted) teacher development also relies on teachers knowing about and using Shame Resilience Theory (Brown, 2006) to facilitate transformative interactions and preclude potential barriers to their own growth and development. These four theories woven together form the framework for whole(hearted) teacher development, my proposed approach to bridging the gap between adult development and professional development and understanding what specifically about professional development interactions generated transformation in teachers (see Figure 3 for a visual representation of the relationship).

Based on Belenky et al.'s (1997) work, whole(hearted) teacher development requires a supportive facilitator, a group of intimate peers, and emotional supports to establish the ideal learning environment. A supportive facilitator validates learners' abilities and capacities to learn

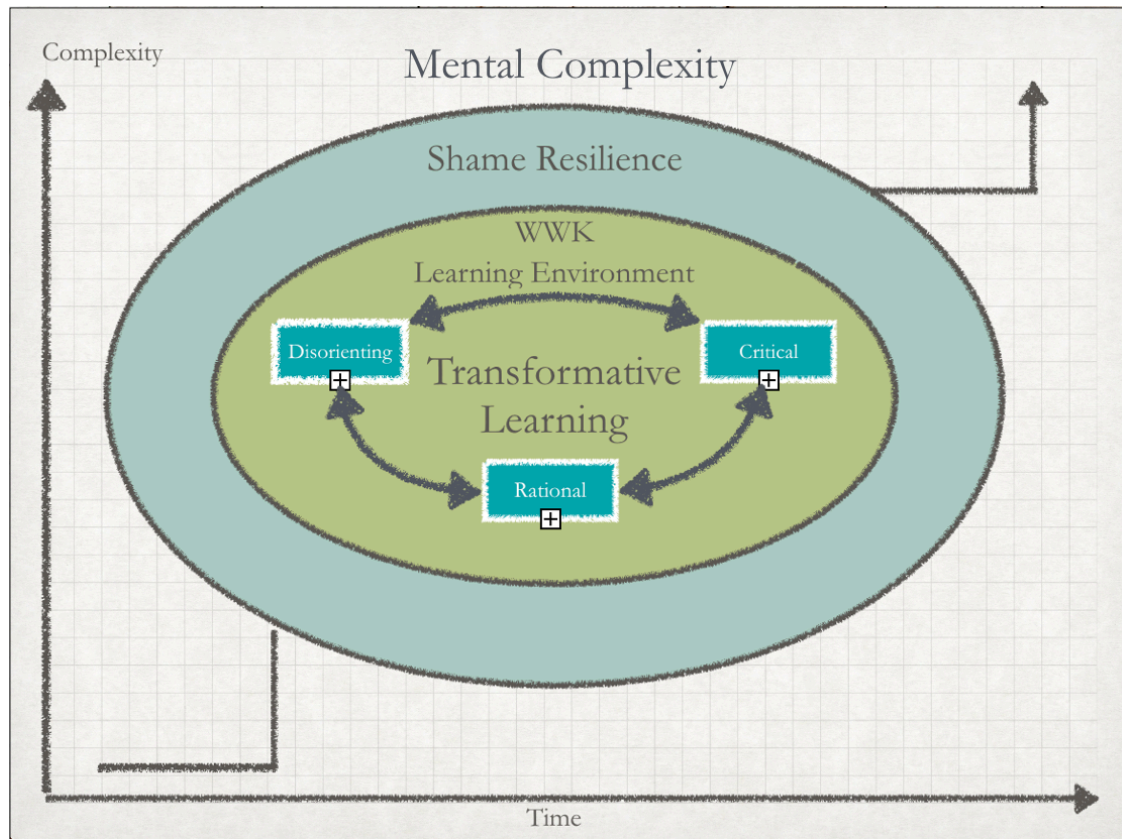


Figure 3. Theoretical Framework Model

(Belenky et al. 1997). The facilitator must show learners what they already know and reinforce it through positive feedback. Additionally, the facilitator must be willing to take risks and model the messy process of development (Belenky, et al., 1997). The facilitator must be honest and upfront about biases and not pass judgment on participants' thinking, ideas, or experiences, but rather empathize and participate with the participants.

Within Belenky et al.'s suggested learning environment, the features for transformative learning—disorientating dilemma, critical reflection, and rational discourse—create the infrastructure for whole(hearted) teacher development. Kegan (2000) equated cognitive development, transitioning between the plateaus of mental complexity, with Mezirow's (1991) process of transformative learning. Kegan indicated that progression in cognitive development—an increase in one's mental complexity—is the process of being subject to a way of thinking, then developing the ability to step away and examine that way of thinking as if it were an object. According to Kegan (2000) the process of transformative learning yields growth in cognitive development in the form of increased mental complexity, reinforcing my reliance on Transformative Learning as necessary structural supports for whole(hearted) teacher development.

In whole(hearted) teacher development, I also relied on Brown's (2006) Shame Resilience Theory as content for the professional development to support transformative interactions. Helping teachers understand how to be resilient in the face of shame will help them experience transformative learning that results in changes in their mental complexity. Brown (2012) posited that leaders must combat shame and disengagement by establishing a shame-resistant culture, by labeling shame and how it is impacting an organization and those in the organization. She also suggests normalizing people's feelings, teaching people the difference

between shame and guilt, and teaching people how to give and receive feedback to foster growth. In planning for teachers' development, shame and disengagement—impediments to learning and development—were overcome by employing gratitude, worthiness, vulnerability, knowledge about shame and how it operates, and a mutually empathic relationship (Brown, 2006).

With this framework in mind, I facilitated a literacy professional development for literacy teachers to gain an understanding of the process of whole(hearted) teacher development (see Appendix A for the professional development guide I developed to aid in the implementation of PD for this study). I looked at how teachers' experience of whole(hearted) teacher development and the learning environment established in the literacy professional development impact a teacher's development as a thinker, learner, and teacher. My proposed theory of whole(hearted) teacher development was assessed through a multiple-case study approach to develop a deep understanding of the relational patterns of the outlined constructs and the roles and impact of each feature of teacher development (Yin, 2015). I operated from a constructivist standpoint and adhered to the belief that multiple realities and truths can co-exist, therefore this case study relied on an interpretivist lens (Hatch, 2002). The following research questions were established to further this study's purposes:

1. What is a teacher's experience of literacy PD designed to support whole(hearted) teacher development?
 - a. How does literacy PD designed to support whole(hearted) teacher development affect a teacher's literacy instructional practices?
 - b. How does literacy PD designed to support whole(hearted) teacher development affect a teacher's mental complexity?

Methods

The case study is an appropriate choice because it is designed to “closely examine a contemporary phenomenon (the case) within its *real-world context*” (emphasis original, Yin, 2015, p. 194). The case study method will allow the researcher to get an up-close, in-depth analysis of the phenomenon—whole(hearted) teacher development—within the context of teachers who share a collegial relationship. Multiple cases will be used in this study to create “replication logic” that will have the potential to reveal the similarities among the cases as outlined in the theoretical frame (Yin, 2014).

The case study method requires rigorous data collection to generate an up-close perspective and ensure construct validity (Yin, 2015). In order to meet this requirement, I will collect multiple sources of evidence including pre and post interviews and classroom observations, transcripts of PD sessions, informal check-ins, and field notes of the interactions for each of the cases. To further establish construct validity, I created a case study protocol (see Appendix B) that I used to provide a chain of evidence as findings were documented (Yin, 2015). The case study protocol was also designed to maintain this study’s reliability and employed to ensure that this study could be repeated if so desired. I chose the multiple-case study approach with the intention of using each participating teacher’s experience as a single case that can be intentionally compared with the other participants’ cases to strengthen the reliability of this study (Yin, 2015; Yin, 2014).

Researcher’s role. I participated in this research as a participant observer. According to Spradley (1980), the purpose of participant observation is to gain an insider’s perspective who, at the same time, analyzes what he or she is experiencing. A participant observer’s interactions vary and could be thought of as existing on a spectrum. The observer’s participation could range from

remaining passive with limited-to no interaction, to active participation where the observer is doing what everyone else is doing (Spradley, 1980). In this study, I spent extended time in the field facilitating ongoing literacy professional development which required extended interactions of the participants and the researcher. Bogdan (1972) noted that participant observation is best used to “develop understandings of complex social settings and relationships” (p. 4) such as the complex relationships among the theories in the proposed substantive theory. This study relied on the usefulness of participant observation in generating theory and understanding around teacher development and studying teacher change (Bogdan, 1972).

My participation in the professional development was largely as a facilitator of whole(hearted) teacher development. My purpose as a facilitator was to be engaged with the participants helping them better understand themselves—what they already knew and their capacities to learn—as well as taking risks and modeling the messiness of development (Belenky, et al., 1997; Levine, 1989).

Researcher’s subjectivity. My role in this study influenced this research in a multitude of ways. I grew up in the selected community and held a long-standing relationship with many of the teachers at the context school. I previously taught for three years at the context school and held an established collegial relationship with the participating teachers. At the time of the study, I worked for the same school system as a part-time technology clerk at the central office but did not hold any supervisory role over teachers in the system.

Researcher’s reflexivity. This study originated due to my experience with professional development as a teacher. During my three years’ tenure as a teacher in the community, I experienced multiple one-to-three day workshops led by experts in their field. Each of these workshops were inspiring in their own way and provided me with some new strategy or skill to

try out in my classroom. However, I noticed that once I left the workshop I was on my own to implement the new skill, strategy, or idea. At times, I would try the new practice and sometimes it would flourish but other times it would flop. During this time, I was revamping my literacy instruction. I made the transition from instruction guided by the core reading program to a readers and writers workshop classroom. The changes I made were generated from some professional development books I read, per suggestions from one of my former professors and some colleagues, some conversations with my colleagues, and by reading about the experience of others through their blogs.

What I found as I made this transition in my reading instruction is that I was better able to assign students texts that matched their reading levels but I still lacked some knowledge about how to help them improve and grow in their ability to read. A year later, I began my PhD program in Reading Education and Literacy Studies with the intent of becoming a reading specialist to better understand how to improve students reading abilities. What I found was that I was missing a set of knowledge about literacy development, what it looked like and how to apply it and support it with my students. During this process I was forced to examine my practice, which was uncomfortable; however, the results analyzing my practice generated huge gains in my understanding of literacy development and my own instruction. The process, however, also forced me to examine why analyzing my practice was uncomfortable. I came up against my outer limit of mental complexity that was bounded by the understanding that at times I defined myself by the labels others applied to me: good teacher, bad teacher. What I learned was that I did not have to accept others' definitions of myself as the only definition of me and instead I could adhere to my own belief system of what was good or not good, freeing me up to make professional choices with autonomy. As a result of my soul searching and my continued

interactions with teachers in schools I began to notice patterns in how teachers interact that suggested that others could benefit from a new mindset. Therefore, I designed this study to see if in-fact we can help teachers improve their levels of mental complexity through literacy professional development that is helpful and productive for them.

Participant selection. This study focused on in-service teachers who teach literacy. I used a convenience sample of teachers. I gained access to these participants as a former teacher in the district who was, at the time, employed by the district in a 100-day contracted technology support role. I requested permission from the district to work with a small group of teachers in an on-going literacy focused professional development. Because of my constructivist beliefs that implicate my need to have frequent interactions with the participants, I selected a school geographically easy to access. I approached the principal with my district-approved plan and asked for a day and time that I could meet with potential participants. I informed her that ideal participants were teachers teaching reading and writing in grades K-5, available for weekly hour-long after school meetings, and interested in improving their literacy instruction. I set up a time after school for the K-5 literacy teachers to meet with me in the school cafeteria after their afternoon duties. As teachers dropped by, I invited them to participate in my study incorporating adult development into literacy professional development. All teachers were provided a consent form in sealed envelopes and asked to return the envelope signed or not. Two teachers provided their consent and became my study participants.

Participants. The participants in this study were two female teachers at Porter's Creek Elementary. *Anne* [pseudonyms are used for all identifying information such as participants' names, school names, and school district] was a self-contained 1st grade teacher who held a Masters' degree in Education. She had 14 years of teaching experience in grades K-3. She spent

the past 10 years teaching a K-1 loop at Porters Creek Elementary. Porters Creek Elementary decided to end their K-1 loop in 2017, so this was Anne's first year as a non-looping first grade teacher, teaching students she did not have in Kindergarten the year prior. When asked about her preferences for professional development she indicated that she liked reading professional materials and observing strong models of new ideas and practices stating, "I like to see it in action, like I like to see whatever it is you are trying, like a video or somebody else teaching it in a real classroom, as opposed to just talking about it and us doing it in the training" (PD Session 2, October 2, 2017).

Elizabeth was a 5th grade reading and social studies teacher and held a Master of Arts in Teaching and an Educational Specialist Degree in Instructional Leadership. Elizabeth had 6 years of teaching experience. She had spent the past 5 years teaching 3rd grade at Porter's Creek; 3 years as a self-contained 3rd grade teacher and the 2 years as a departmentalized 3rd grade teacher of reading and social studies. This was her first year as a 5th grade reading and social studies teacher. When asked about her preferences for professional development, she indicated that she enjoyed being mentored by an expert teacher and lectures stating, "I love getting all the information, being able to take notes, and looking back over it and feeling like...I really learned something" (PD session 2, 10, 2, 2017). She was not fond of professional developments that used the new instructional strategy on the participants.

Context. This study took place at a small rural K-8 elementary school, Porters Creek Elementary, in a large rural district in east Tennessee. Porter's Creek has 565 students, 39 certified teachers; 70 percent of students are White, 20 percent are Hispanic, 6 percent African-American, and 4 percent Asian. Seventeen percent of enrolled students are identified as English Language Learners, 69 percent of students are identified as Economically Disadvantaged

students, 16 percent students are identified as students with disabilities (US Department of Education, 2014-2015). Porter's Creek recently qualified as a Title I school.

In 2016-2017 the school library was a blue rated library, the highest rating available indicating there were ample numbers of books per student that were new and relevant to students. The school also has a strong Parks-As-Classrooms (PAC) program and relationship with the Neighboring National Park. Students K-8th grade at Porters Creek Elementary go on at least 2 PAC fieldtrips a year that are integrated into the grade level curriculum.

Professional development. Porter's Creek's school district mandated teachers receive five days of in-service and required teachers to obtain six hours of flexible in-service credit annually. In-services provided were a combination of district wide and school-based in-service. Typical district-level in-service provided ranged from motivational speakers for the whole district; two-day workshop facilitated by the district's staff developer on integrating technology into teachers' curriculum; required video trainings on McKinney-Vento Act, blood-borne pathogens, suicide prevention; one-day, outside-expert led content area workshops; and teacher-led workshop sessions. The school system also has five curriculum lead teachers who were responsible for meeting the teachers' curriculum and technology integration needs for the 28 district schools. The curriculum lead teachers visited their schools at least once a week to meet either one-on-one with teachers or in small groups to address their professional learning needs.

Typical school-level in-service provided at Porter's Creek Elementary were Title I training on family engagement provided by the district's family engagement coordinator; teacher and/or administrator-led grade level data analysis of state assessment data and district benchmark data from STAR Reading Assessments; and new school level program training such as Remind 101, IXL, Academy of Reading, etc.

In order for teachers to meet the flexible in-service credit, eligible flexible in-service activities included:

- a. In-service activities designed to develop the competencies of apprentice teachers.
- b. Instructional assessment and improvement studies.
- c. Workshops and/or other activities based on the assessed needs of a school or school system.
- d. Development and coordination of system and school-wide curriculum, approved by the Assistant Superintendent.
- e. Conducting staff development programs/activities that are consistent with needs identified at the building and/or system level.
- f. Studies of: teaching methods and strategies, classroom management, child development, curriculum and instruction, motivation, community involvement, planning, and evaluation.
- g. Workshops, seminars, institutes, state-sponsored activities, teacher-center activities, professional organization sponsored activities, and college or university sponsored activities that are related to a teacher's assignment or to a school's or system's objectives. (To validate these activities, a written record of attendance/participation must be maintained.)
- h. Specific training for the instructional assignment.
- i. Service as a free consultant to other schools and school systems, excluding travel time.
- j. Red Cross First Aid and/or CPR Training. (TNDOE, 2018)

Porters Creek Elementary School, however, typically held an annual 2-day faculty retreat during the summer just before school goes back in session. The faculty retreat was a time when the principal planned professional development activities specific to the school's needs such as guest speakers on relevant topics including but not limited to recent relevant legislation changes, state and local policies, school and district level programming updates, state and local assessment updates, and school level and grade-level data analysis. The annual retreat was typically attended by the majority of the Porters Creek faculty and met teachers' requirements for flexible in-service.

Porters Creek held monthly faculty meetings where state, district, and local updates are shared, and required teachers to meet in grade level Professional Learning Community (PLC) groups weekly. Grade level PLCs were teacher-led. Grade-level team leaders were provided an outline for an agenda that included new business, old business, administrative updates, and action steps. During 2014-2015 the administrator adopted a standardized PD program for the PLCs in an attempt to improve the quality of the professional learning taking place during PLCs. PLCs were provided guided materials with designated topics to discuss across the school year. This program, however, was discontinued in the following year and the old agendas were brought back. The participants in this study indicated that the PLCs, though well intended, were not always held and were not always operated as designed. Some grade-level PLCs did some co-planning but not during their designated PLC time; some grade-level PLCs tried to have teacher-led sessions where teachers could share practices or programs they were experts at with their teammates who wanted to know more. However, the teachers indicated that helpful PLCs were not a big part of their school culture and were not enforced. The participants also indicated that

collaboration, the willingness to disagree with others, and the willingness to examine your own weaknesses were not part of the school culture (PD session 2, October 2, 2017).

Data Sources

This multiple-case study is designed to examine the application of the four theories woven together in the proposed theory of whole(hearted) teacher development and the ensuing interactions. In order to obtain an in-depth view of this phenomenon I collected a variety of data sources including pre and post subject-object interviews, pre and post classroom observations, transcripts of the professional development sessions, artifacts from the professional development, and informal teacher check-ins.

Subject-object interview. I interviewed each participating teacher before and after the whole(hearted) teacher professional development using the subject-object interview (SOI) protocol (see Appendix C). The SOI was developed by Kegan, Lahey, and their colleagues and is founded on Kegan's constructed-development model of cognitive development (Lahey et al. 1988). The SOI measures individuals' levels of mental complexity. The term "Subject Object Interview" refers to the interview protocol's role of determining those things that people are subject to and those things that they hold as an object—their present way of knowing.

The SOI protocol begins with handing the participant 10 cards with a word or phrase on it ("success", "angry", or "change"). The word or phrase is a guide for the participant to use to generate events that they will recount. The way they talk about the events and what was most/least important to them reveals the things they hold as object and the things they are subject to. The participant is asked to note an experience that is related to the word on the card. After the participant has processed all 10 cards, then she is asked to share her thoughts with the interviewer from one of the cards. The interviewer uses probes to clarify the structure of her

answers not necessarily the content because why something is important reveals how a person constructs meaning.

When analyzing the material for structure, the SOI protocol makes room for two positions an individual could be in: 1) complete equilibrium designated by the single numbers 1, 2, 3, 4, 5 indicative of the individual's placement completely within one level of mental complexity and 2) developmental disequilibrium indicating an individual is in process or transition between two subject-object structures and designated by $X(Y)$, X/Y , Y/X , $Y(X)$. When an individual, for example, begins the transition from the socialized mind (3) to the self-authoring mindset (4), evidence of the self-authoring mindset begins to surface and create conflict for the self, however the older structure remains to rule the experience and is designated by 3(4) (read 3 parens 4, also $X(Y)$). As the individual continues their transition from 3 to 4, the new structure becomes more complete and the struggle over which structure is relied on to interpret experience becomes more illustrative and is indicated by $3/4$ (read 3 slash 4 also X/Y). When the new structure finally takes precedence over the older structure in organizing the individual's experience they are $4/3$. When very little of the old structure remains, but is enough to make its presence known, the individual finds themselves at a 4(3). Finally, when the individual has completely transitioned to the self-authoring mindset they are no longer in conflict. Their newly complete equilibrium would be designated as a 4.

I used the SOI to determine and compare each individual teacher's level of mental complexity at the beginning of the study and at the close of the literacy PD.

Reliability and validity of the SOI. A measure's reliability indicates whether or not the measure shows stability across time (Creswell, 2014). Because the SOI is an interview protocol, one test of the measure's reliability is the potential for interrater reliability—whether or not

multiple raters would score the interviews consistently. Goodman (1983) established interrater reliability for the SOI using 27 interviews and 5 researchers. Two researchers scored each interview, making sure that researchers did not score interviews they had conducted. They found complete agreement between the two scores at 89 percent and agreement within 1/5 stage at 100 percent. Several other studies have been completed using the measure of agreement within 1/5 stage finding: 80 percent agreement with 2 discriminations on 20 interviews of married couples (Jacobs, 1984); 100 percent on 24 interviews of women (Dixon, 1986); 100 percent on 22 interviews of men and women (Lahey, 1986); and 100 percent on 28 interviews with young children (Carroll, 1986). For the purposes of this study, I contracted with a reliable scorer to accurately score all four interviews conducted.

The SOI's test-retest reliability was examined by Lahey (1986) where she used the SOI with 22 adults (11 male, 11 female) on two separate, consecutive instances. She found .82 (Spearman coefficient) and .834 (Pearson's r) correlation between the scores from instance 1 and instance 2. Both tests were significant at the $p < .0001$ level. The percent agreement within 1/5 stage from instance 1 to instance 2 was .81. In instances where scores changed across the instances there was no evidence of a "practice effect" meaning scores were no more likely to increase or decrease from instance 1 to instance 2. Finally there was no evidence of one sex being more or less likely to change from instance 1 to instance 2 (Lahey et al., 1988).

Another measure of the SOI's reliability and validity is the consistency across the terms used in the SOI. Villegas (1988) studied Venezuelan adolescents reasoning about responsibility and used parts of the SOI protocol in comparison measures. Villegas gave the SOI without the term, "strong stand" and then used the same protocol with only the "Strong stand" item. A comparison of these measures revealed a correlation of .96 across the two administrations with

the different terms indicating the measure's ability to produce extremely similar results with varying terms.

To determine a measure's validity is to measure how closely the measure assesses what it was designed to assess. Because the SOI is a developmental measure, the most appropriate form of validity is the measure's construct validity or the degree to which the SOI assesses one's subject and object-ness by comparing the SOI to other comparable measures. Research has found moderate positive correlations between the SOI and Kohlberg's Moral Judgement Interview (Villegas, 1988), Loevinger's Sentence Completion Test (Lahey et al. 1988), measure of Piagetian stage (Carroll, 1986). However, there is no published evidence of the gradual changes longitudinally in subject-object development (Lahey et al. 1988). Kegan, Lahey, and Souvaine are 6 years into a longitudinal study of 35 adults using the SOI annually.

Classroom observations. I performed observations of teachers' literacy instruction before and after the professional development. These observations focused on identifying and comparing teachers' practices from before and after the study. Research suggests that observations should be focused on teacher behavior and not evaluations of the teacher (Desimone, et al. 2002). Observations are particularly useful for "questioning models of teacher interactions...how beliefs and attitudes change, and the process through which teachers change their instruction" (Desimone, 2009, p. 190). During the observation, I collected field notes focused on the teacher's instruction and the content of teacher-student interactions in the classroom. After the observation, I revisited the field notes as quickly as possible to fill in any lingering notes and to evaluate the quality of literacy instruction and used Bean, Fulmer, and Zigmond's (2009) observation protocol (see Appendix D) designed "to observe reading instruction across the elementary grades" (Bean, 2016, p.173) that provided descriptors for ideal

reading practices and a scale to assess the extent the practices were present in the classroom during the observation.

Recordings of professional development sessions. The professional development sessions were recorded, transcribed, and analyzed.

Artifacts. Any artifacts that are used during the professional development sessions were collected and used in the analysis. All journaling and other forms of written reflection instituted in the professional development were collected and used during analysis.

Informal teacher check-in. I created a space for the participants to individually provide feedback on their experience in the process and feedback to the researcher/facilitator (see Appendix E). The informal teacher check-in was individual and conducted online using Google Forms so that teacher participants felt comfortable sharing their feedback. I employed one informal check-in at the end of the study.

Data Analysis

Data analysis began as the data was collected. The data were analyzed to expose teachers' experiences with whole(hearted) teacher development inside the literacy professional development. Specifically, data were analyzed for patterns in participants' interactions within the professional development sessions, changes in their cognitive development, and changes in their literacy practices following the case study data collection protocol (Appendix B).

As I transcribed each PD session I analyzed the material for structure and elements of whole(hearted) teacher development establishing initial codes (Miles, Huberman, & Saldana, 2014). I, then, made a code book and went back over the data to see if the codes applied more broadly (Saldana, 2009). I made memos throughout my analysis process about codes, the process, and my analysis (Saldana, 2009). Then I created a data display driven by research

question one to further examine the relationships among codes to establish patterns and themes present in the data. I employed member checking by sharing examples of the patterns I found back with the participants and provided them if my descriptions matched their experience (Rossman & Rallis, 2012). From here I formalized my analysis through writing.

The initial and final classroom observation data for each participant were analyzed for shifts in practice according to the areas established by Bean, et al.'s observation protocol. Data from the PD sessions such as when the participants described their changing practices was used to support this analysis. Each area of the observation protocol was written about regardless of whether the practices in that area changed or not.

The data for the Subject-Object Interviews were analyzed by an established reliable rater, Dr. Nancy Popp. I contacted Dr. Lisa Lahey, one of the authors of the SOI, for information on scoring the SOI. Dr. Lahey recommended Dr. Popp as a reliable rater and resource for my work with the SOI. I paid Dr. Popp 150 dollars per interview to analyze and score the four interviews I collected for this study. I transcribed the interviews and sent them to Dr. Popp. She then scored them, and shared her analysis with me. I formalized the results and implications through writing, and I provided Dr. Popp with my written analysis of the SOIs. Then she provided feedback on my write up and I adjusted the write up based on her feedback.

Chapter Summary

I put forth the idea of whole(hearted) teacher development as a new component to teachers' professional development. Whole(hearted) teacher development marries theories from adult development, adult learning, and sociology to establish a lens to examine the interactions within literacy professional development.

This study is a multi-case study of two teachers' experiences inside literacy focused professional development. Data and artifacts from the professional development sessions, an informal teacher check-in, pre and post classroom observations, and pre and post subject-object interviews were collected and analyzed to form the corpus of data for this study. The data were analyzed following Miles, Huberman, and Saldana's (2014) data analysis methods.

Chapter Four: Findings

The purpose of this study was to closely examine teachers' experiences of literacy professional development designed to support whole(hearted) teacher development and to understand the impact whole(hearted) teacher development may have on teachers personal and professional growth. The following research questions were employed while analyzing the data for this study:

1. What is a teacher's experience of literacy PD designed to support whole(hearted) teacher development?
 - a. How does literacy PD designed to support whole(hearted) teacher development affect a teacher's literacy instructional practices?
 - b. How does literacy PD designed to support whole(hearted) teacher development affect a teacher's mental complexity?

In line with the methods outlined in chapter 3, I analyzed the PD session transcripts, participants' responses to the informal check-in, and classroom observations looking for what the participants did during and around the PD sessions; the kinds of ideas that were present across the PD sessions; what happened as a result of the PD sessions, as well as, how those results came about. My analysis of teachers' experience of the literacy PD yielded patterns in the participants' interactions, themes in the content of the PD, and identified transformations and near transformations that occurred within the PD. In order to gain a picture of how each teacher's participation impacted her mental complexity, I conducted the pre and post Subject-Object Interviews and had them analyzed and scored by a certified reliable rater, Dr. Nancy Popp. At the conclusion of the study and after all of the data had been collected Dr. Popp and I discussed

her analysis of the SOIs, I wrote up the results, and shared them back with her to verify the clear communication of her expert analysis.

This chapter is divided into two major parts: the literacy professional development design and the teachers' experiences of the literacy PD. Inside the literacy professional development design section, I outlined what occurred during the 10 PD sessions and shared the facilitator's roles and functions to provide a clear picture of the literacy PD that occurred. In the teacher experience section, I relayed the results of my analysis of the data in three sections: *participant interactions*, *content*, and *transformations and near transformations*.

Literacy Professional Development Design

The literacy PD designed to support whole(hearted) teacher development consisted of 10 professional development sessions spread across 15 academic weeks. The professional development sessions were designed first and foremost to support teachers' whole(hearted) development as outlined in the theoretical frame of this study and in response to the teacher participants' needs. The two parts of the professional development sessions were part 1) learning how adults learn best through understanding shame and vulnerability and part 2) participants self-selecting professional development goals for their literacy instruction and using our learning environment to support their growth towards their learning goal. Each PD session had an explicitly outlined goal and content to support the session's goal (see Table 1 for specifics of each PD session). This information was collected from the planning documents, actual PD sessions, and written and audio reflections I maintained throughout the PD.

Table 1. Professional Development Sessions' Goals and Content

PD #	Goals	Content
1	Understanding the current situation: the participants, their setting, their perspectives	Discussed strengths and areas to strengthen of multiple layers of educational system
2	Building a community to support teacher development in literacy, pt. 1	Negotiate understanding of vulnerability: Discuss Past PD experiences what worked what didn't; View <i>Brown The Power of Vulnerability</i> ; Discuss video
3	Building a community to support teacher development in literacy, pt. 2	Negotiate understanding of vulnerability and shame: Discuss revisiting the evolving meaning of Vulnerability; View Brown's <i>Listening to Shame</i> ; Discuss and apply new ideas to collaboration
4	Putting New Ideas into practice, trying our hand at whole(hearted) conversations	Discuss and apply Ch. 4 in <i>Daring Greatly</i> ; Describe our ideal literacy block
5	Setting goals and understanding our own struggle to meet goals	Discuss what is important to you about literacy practice; Discuss comparing our practice to our ideal practice; Discuss hindrances to achieving ideal lit block; setting goals in light of today's discussions; Revisiting desire to throw out the basal
6	Working towards our goals: Identify each teachers' (instructional and personal) support needs to achieve goal	Discuss Brown Ch 4 on perfectionism; Small group interviews where teachers discuss their intentions and needs; Plan how to meet needs (in between: Eliz. gives a new assessment & CN modeled new assessment for Anne)
7	Comparing our values, goals, and behaviors	Discuss new assessments: Eliz.-Spelling Inventory & Anne-QRI; Examine own values against goals, thoughts, ideas
8	Support teacher progress in practice and thinking	Report on Progress; view Brene Brown's <i>It's not your critics who count video</i> .
9	Review the work of the semester	Co-Construct a plan going forward; Check on how the PD is going for participants; Revisit small group progress
10	Transition: Assess, plan, reflect	Assessing Small group progress since before Christmas break; Co-plan for PD going forward; Discuss progress of Shame and Vulnerability in practice

Facilitator roles and function. I operated as the facilitator for the professional development coordinating the literacy PD designed to foster whole(hearted) teacher development. My goal as a facilitator was to help establish the necessary environment to promote whole(hearted) teacher development by becoming a midwife-teacher who helped the participants better understand the knowledge they already possessed and support their own desired learning goals (Belenky et al. 1997). I needed to validate each participant's knowledge and ability, support the teachers to set their own learning goals, help participants to produce their own ideas, and connect with each teacher's point of view (Belenky, et al. 1997).

After the completion of the professional development, I analyzed the 10 PD sessions to better understand the facilitator's role and the environment created within this study's literacy professional development. My analysis of the facilitator and PD environment included cross referencing the participant's perceptions of these features as evidenced in the informal check-ins. Across the 10 PD sessions, I, as the facilitator, functioned to establish a safe environment, maintain clear communication, share specialized knowledge, and operate as a Midwife Teacher (See Figure 4 for a model of the facilitator's roles that contributed to the literacy professional development).

Establishing a safe environment. The participants found that the safe environment created inside the PD contributed to their growth and development. Anne specifically said, "[The PD] gave me an opportunity to talk about things in a safe environment. It felt like a safe environment. It felt like a place I could express my ideas and thoughts and get supported or challenged in a positive way" (Informal check-in). As the facilitator, I worked to establish a safe

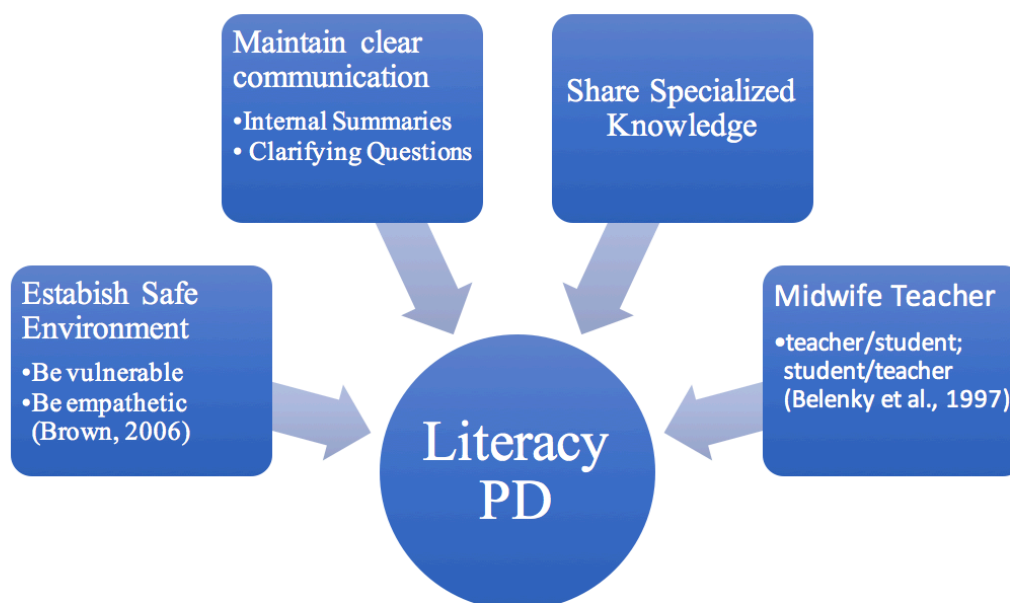


Figure 4. Facilitator Roles

environment by employing empathy and vulnerability, two traits critical to this study's theoretical framework.

I engaged empathy by connecting with the participants' experiences, thus creating a safe environment for learning together. For example, when Elizabeth shared how she grappled with how best to handle her husband's emotional response, I shared back my understanding of her words and connected her experience to my experience saying:

Yeah, absolutely. I think what you said is I don't do that consciously because you are a man. Really, I connect with that completely. Because...when I first saw my husband, you know, responding to something [emotionally], I'm like [thinking] "Sorry you are not allowed to be angry. You don't get to be angry." Why does he not get to be angry? I don't know, but I said he can't. (PD session 3)

By restating what I heard her say, and then sharing a time when I experienced a similar situation—making a connection to my own experience—I used empathy to normalize her experience thus building a safer environment for us to work in.

I also modeled empathy by affirming the participants' knowledge and experience. When I asked Anne about what she thinks it means to have the courage to be imperfect, she responded saying:

Just being honest and upfront. Not, you know, I think sometimes I have a tendency to want to hide in the idea that everything is ok. Especially like, you know, if there is a lot of balls in the air between being a mom and teaching and everything. And trying to act like I have it all together. And some days you just don't. (PD session 3)

I followed up her statement with affirming words acknowledging and validating her feelings about having the courage to be imperfect, saying, "Yeah, it sounds so hard just to hear it spoken.

It really does” (PD Session 3). Using empathy to affirm the participants’ experiences and feelings contributed to a safe environment for the work of whole(hearted) teacher development.

I modeled vulnerability with the participants by risking my own emotional exposure. One of my vulnerable actions was reframing the participants’ points with a lens borrowed from some newly negotiated ideas. For example, when Elizabeth shared a story about how the school resource officer (SRO) and assistant principal criticized her students’ work for the social studies fair and how it made her feel, I listened to her story and also provided a few alternative perspectives to how she was interpreting the story. She shared that the SRO told her students that they made her look bad to central office and she expressed how his critique made her question whether she had done a good job with her expectations of her students for the project. I countered her story with, “Maybe he didn't really understand what he was saying” (PD Session 6) and suggested the SRO did not understand how his words could be received as critique on Elizabeth’s teaching. And that instead he likely saw it as an opportunity to make the students feel bad for how their work made Elizabeth look to others. Reframing scenarios for the teachers presented a new perspective on their interpretation of a situation that contributed to changing their thinking.

I also employed vulnerability by often speaking of my own shame to normalize conversation around our experiences of shame. For example, during the 2nd PD session I confessed to the participants my feelings about some of the content we were discussing:

The idea of authenticity is challenging. Like, I just need to be me. Whoever she is however she is, I need to be her, I mean, Cassie. I'll tell you something I really struggled with is my pregnancy. I've really struggled with telling certain people. Because I'm really

worried, I've been worried that they would be like how are you going to finish your PHD? (PD session 2)

Sharing my own struggle with the topics that we were discussing was another attempt at normalizing the issues people have around the new concepts our PD group was studying. Normalizing shame and vulnerability and removing as much stigma as we could around these two parts of the human experience contributed to the safe environment the participants noticed help them feel comfortable engaging in new behaviors.

Maintaining Clear Communication. Another important behavioral pattern in my role as facilitator was maintaining clear communication among the participants. Both participants noticed that the facilitator helped maintain clear communication by listening, providing feedback, and helping the conversation stay on track (informal check-in). After examining the PD sessions, there were two actions I employed to help with clear communication: using internal summaries, and asking clarifying questions.

I maintained clear communication inside the PD by employing internal summaries of the discussion points addressed during the PD. For example, in PD session 3 the participants were discussing how they defined vulnerability. During the conversation ideas such as vulnerability is weakness and vulnerability on Facebook were discussed. At one point Anne shared that she:

feels like sometimes you associate vulnerability, and this is because I read a lot of murder mysteries, but...like you associate that word with um, negative things happening because you were vulnerable. Not necessarily like physical negative bad things happening, like violence... like it is just one of my associations with it, I think. Not in the context we are talking about it.

As the facilitator, I thought her point was very insightful that she pointed out a reason as to why we associate vulnerability and weakness so I used an internal summary here to not let this insightful point be missed. I followed her comment with:

Cassie: No, no, I think you're on to something because what you just, what I heard you say, and correct me if I'm wrong, what I heard you say was we define vulnerability by the times it went badly

Anne: Yes

Cassie: And not by the times it went well. I think you're right! (PD session 3)

I used internal summaries such as these to emphasize things the teachers said that I saw as powerful and helpful. I would also use internal summaries to revisit the things discussed and create space to ensure everyone had a chance to say the things on their mind before we moved on to another point or topic.

Another strategy I employed across all 10 PD sessions to maintain clear communication was asking clarifying questions of participants to verify their points. For example, during the second PD session, I asked the participants to describe and evaluate the good and bad traits of some of their PD experiences. Elizabeth began by saying:

Here is what I hate. I don't like it when and this happened a lot at like state trainings, when they are trying to teach us using a strategy they are trying to teach us about. Like they are trying to teach us about a strategy using that strategy. And I prefer to get all the information, like give me the information, and then if you want to try it fine. (PD session 2)

To clarify, I asked Elizabeth, “Like model it?” to see if that was in fact how she would define what she did not like about that particular PD strategy and to encourage her to keep describing it until we all understood clearly. She went on explaining:

Yeah. But I hate, it's frustrating for me to learn the way that they want us to teach the kids, like let's do, let's get in centers and try this. And I'm like, No, I am an adult. Like, just tell me what you want me to do, let me look over the information and I can do it. And that is probably not what you want to hear, but I can't stand it. Um. I don't like it. (PD session 2)

By asking her a clarifying question, she elaborated on her position that experiencing PD where the leaders are using the strategy to teach the strategy was frustrating for her because she felt like a subordinate in that situation. Her explanation sounded like she had other concerns as well and I wanted her to reflect on why she was experiencing this frustration, so I asked her another clarifying question, “What about that is the most frustrating for you, do you think?” She then admitted that she did not know, but that she was sure she hated it. I understood her comment as a sign that she was not yet ready or possibly not yet aware of what was so frustrating for her. Therefore, asking clarifying questions of the participants was a strategy I employed to promote the participants' deep thinking and clarity about their thoughts, feelings, and experiences.

Share Specialized Knowledge. As the facilitator, I also used expert knowledge throughout the PD sessions. I would share specialized knowledge by offering my professional opinions and making specialized instructional suggestions on educational issues that arose. For example, during the final PD session the teachers were discussing how they were having a hard time matching texts to readers because of the variety of systems the school and district had subscribed to. Their basal readers used one leveling system, Reading A-Z an e-book subscription

the district provided employed a slightly different leveling system, and the STAR test provided students' grade equivalency and instructional reading level based on the ATOS system, yet a third system. As I listened to their concerns, I shared my specialized knowledge in an effort to offer them support as they navigated matching texts to readers saying:

One of the things you are talking around is text complexity. Um, I don't know how much y'all have studied or examined text complexity, but um, there, I mean, there is some information out there that could make judging it easier. But, I don't know, so if y'all are interested in that. (PD session 10)

I used expert knowledge to introduce new ideas that they may be interested in exploring or learning more about.

Midwife Teacher. As a midwife teacher my job was to help the participants better understand what they know. To do so, I dissolved the traditional professional development roles of expert and learner into a more equal and less dichotomous relationship. Belenky et al. (1997) refer to equating the teacher and student roles as the *teacher/student and student/teacher* and they consider it necessary so that both parties can share their thinking in an unthreatened, public arena.

One way I employed the *teacher/student and student/teacher* tactic was by seeking the participants' guidance on the PD process by asking for their input on how activities should go and where to focus our time. I would often start by telling them my goals for the activity, "I thought we could start our conversation about literacy. We talked a little bit about that last week" (PD session 4). And then further ask for their input saying, "Just checking in. So, like what, what sounds good? Where do y'all want to start?" (PD Session 4). They would then identify what was important to them, where they felt comfortable starting. I also gave them a voice in how they

participated in the PD such asking them what activities they wanted to continue and stop. For example, we started reading some of Brown's works and I checked in with them after a bit saying, "And we can talk about whether or not y'all want to continue reading it" (PD session 5). In addition, I would also defer questions to the participants encouraging them to use what they know to help their peers:

How might she do that, Anne? Did you hear her? She's got some students who need to work on fluency because they are decoding but they, their cognitive load is so high that when they decode they have no space for the comprehension...What do you think? (PD session 6)

By seeking the participants input on how to guide the PD's focus, which activities to keep and toss, and encouraging them to use their own knowledge to help each other, I took a step away from the traditional role of facilitator and functioned more as a teacher/student.

My actions in the facilitator role were intended to support the PD's goal of fostering whole(hearted) teacher development. I established a safe environment through being vulnerable and empathetic. I maintained clear communication with internal summaries and clarifying questions. I dissolved the roles of teacher and student to support the participants in learning more of what they already know as a midwife teacher. And I shared my own specialized knowledge to support new learning. I performed the first three roles: safe environment, clear communication, and sharing specialized knowledge at approximately the same frequency (71, 68, 79 instances respectively). However, I functioned as a midwife teacher with much less frequency (20 instances).

Teachers' Experience

Examining the participants' experience inside the PD revealed patterns in the ways in which the participants interacted, content discussed, and changes in the participants' practice that occurred. The patterns in *participant interactions* illustrate the relational things that occurred inside the literacy PD designed to support whole(hearted) teacher development. The patterns in the content of the literacy PD illustrated *a learning process* grounded in transformative learning. Finally, the changes in the participants' practices depicted *transformations and near transformations* and addressed research sub-questions a and b.

Participant interactions. When asked about what she did during the PD that was helpful to her Elizabeth said, "I shared my successes and failures in my literacy block. I enjoyed sharing experiences with other teachers...I liked having a sounding board. They were able to listen to me and give constructive feedback that I could use the very next day" (Elizabeth, Informal Check-in). Elizabeth highlighted the importance of sharing her ideas and thoughts about her experience, as well as, having a sounding board or place where she could receive feedback to use in her practice. The other participant, Anne, pointed out that she also found interactions and support most helpful:

The PD gave me the opportunity to talk through what I wanted to change, what I wanted the outcomes to be and how I could do that. Once I was able to put it in words and have support to bounce ideas off of, I was able to work on that change. (Anne, Informal Check-in)

Anne and Elizabeth both agreed that it was helpful to be able to talk about, share, and reflect on their ideas and thoughts about her own experience. And they both made a point to further distinguish between talking about their experiences *and* being supported by others. With

this information in mind, across the 10 PD sessions I noticed two distinct categories of participant interactions based on what the interaction required of the participant: vulnerable actions and empathetic actions. Interactions were identified as vulnerable if they posed risk, held uncertain outcomes, and/or exposed participants' emotions (Brown, 2012). Interactions such as critical reflection done inside the PD sessions were considered vulnerable because participants believed they were revealing and critiquing a part of themselves in front of others which required the participant risk other's judgment, act without knowing the potential outcomes, and, at times, reveal their own emotions about an event or action. Empathetic actions were identified as actions that showed one participant seeing something from another participant's perspective, being nonjudgmental, and/or communicating her understanding of another participant's feelings (Brown, 2006; Wiseman, 1996). Providing affirmation to another participant was considered one example of being empathetic because the participant providing the affirmation was offering nonjudgmental agreement and understanding of how the other participant was experiencing something. As a form of member checking, I presented selected data back to the participants and asked them to label whether they were being vulnerable, empathetic, or something else entirely based on provided definitions of those terms. In the next two sections, I will describe the kinds of interactions that were labeled vulnerable or empathetic as well as illustrate patterns in the participants' use of vulnerability and empathy.

Being vulnerable. Vulnerable actions were distinguishable by determining whether in speaking the content the participant risked judgment, experienced uncertainty, or revealed their emotions. Each vulnerable moment was born out of the speaker's bravery and willingness to share their internal experience (Brown, 2012). The following interactions were deemed vulnerable: critical reflection, sharing specialized knowledge and beliefs, speaking shame,

sharing instructional needs, reframing scenarios for their peers, asking clarifying questions, and seeking other's input. Both participants engaged in a variety of vulnerable interactions, though at varying rates. Anne engaged in 28 percent of the vulnerable actions recorded, whereas, Elizabeth engaged in 72 percent of the vulnerable interactions recorded. Indicating Elizabeth spent more time being vulnerable during the PD sessions than Anne did (See Table 2 for chart of participants' participation in each identified interaction).

Table 2. Occurrences of Participant Interactions by Participant

<i>Teacher Interactions</i>	Anne		Elizabeth	
	% of occurrences	# of occurrences	% of occurrences	# of occurrences
Vulnerable Actions	39%	45	61%	60
Critical Reflection	16%	4	84%	21
Sharing own instructional needs	37%	12	63%	20
Speaking shame	11%	3	66%	17
Sharing specialized knowledge/beliefs	85%	26	15%	4
Seek input	0%	0	100%	8
Empathetic Actions	83%	71	16%	14
Validation	85%	11	15%	2
Connect with participant	80%	43	20%	11
Reframe scenario	95%	17	5%	1

Note. Percentage of occurrences indicates the percent of teacher interactions the participant engaged in.

Critical reflection. The idea of critical reflection has been defined by researchers as identifying problems of practice, issues, or dilemmas of thought and examining surrounding assumptions or lenses through which one interprets the problem, issue, or dilemma (Dewey, 1912; Schon, 1983; Day, 1993; Zeichner & Liston, 1996). Critical reflection is also a major piece of successful transformative learning (Mezirow, 1991). Critical reflection in this study looked like participants talking about problems in their instructional or professional practice, deeply considering the way they interpreted the issue, and considering possible solutions. Critical reflection, interestingly, also functioned as a catalyst that generated places in the teachers' practice, both instructional and professional, that the teachers desired to transform. Consistent with the overarching trend of vulnerable actions, Elizabeth accounted for 84 of documented critical reflection compared to Anne who accounted for only 16 percent of the documented critical reflections. These findings indicated Elizabeth spent more time talking about critical reflection than Anne did.

Anne, for example, used critical reflection when talking about how her practice was progressing. She first shared her self-assessment of how her instructional goals were going during the 5th PD session saying, "I feel like we are getting to more of what I would like to do". She provided a positive assessment of her progress towards her goal. Then in her next statement she indicated an area that was still troubling her saying:

But I don't know, and maybe it's just their age, but [my students] are not where I want, would like them to be in being able to talk about books and being able to recommend books they like and me being able to recommend books that they might like. Because I would like that piece in there. But it is just not there yet. (Anne, PD session 5)

She used critical reflection to identify a problem in her instruction—her students are still not where she would expect them to be in their abilities to talk about text with their peers and with her. And then she identified time as a possible reason why her students are not where she expects them to be saying, “but it is just time, time is the hardest part, is it's like time for math before I even blink my eyes sometimes” (PD session 5). Through critical reflection she indicated that she believed she did not have a large amount of time for her reading instruction which hindered her ability to get much done. However, Anne critically reflected deeper into the issue of time, uncovering at least one way she contributed to the issue:

Sometimes it's how I'm managing my time, like if I did the preplanning that we need to do so that we can do the next step or do I have all my stuff together, and that has been a struggle for me. Because I will take stuff home, but I don't necessarily get to it because...there's lots of stuff going on on the weekends. And I'm just too tired sometimes too. And then I'm pumping during my planning and this week was crazy because we met with Mr. Ballew and then Ella was dropped off here and then, yeah. And Thursday we had our grade level meeting and the next thing I know it is time to write lesson plans for next week and I'm like I don't have any time for that. So, that is the hard part (Anne, PD session 5).

She shared her understanding of how she mismanaged her time: she saw her need to be prepared as the underlying problem and she understood that being better prepared would help her better meet her students' needs. However, she did not share her assumptions or lenses she used for interpreting the problem and situation. Speaking aloud her struggles in this way put her at risk of other's judgment and exposed her frustration with herself and her situation making critical reflection a vulnerable act that occurred inside the literacy PD. Anne's critical reflection was an

essential piece in her transformation helping her uncover her struggle with time management which ultimately became something she wanted to improve upon.

Elizabeth used critical reflection around her literacy instructional practices and in her personal growth. After having read some of Brown's (2012) *Daring Greatly*, for example, Elizabeth critically reflected on her personal practices saying:

I think my problem is I don't always see the line between perfectionism and striving for excellence until it is too late. And I should be like it was good enough. Why did I stress...about that until the point that it made me ill? You know? (PD session 6)

She thought deeply about her problem with perfectionism, sharing her thinking that blurred the line between perfectionism and excellence and contributed to her struggle with perfectionism. Her talk about her internal lenses risked judgment and the uncertain responses of her peers making her discussion a vulnerable one. She further depicted her understanding of the relationship between perfection and healthy striving saying, "It is hard to see that line, like you're pushing yourself too much or you're slacking, for me" (PD session 6). She revealed how she understood that for her perfection was about whether she was doing enough.

Her critical reflection reminded her of a recent experience she had in her teaching that left her struggling with perfectionism and striving for excellence. She shared her struggle saying:

[The book] said that perfection is the enemy of done. It kind of made me think about the social studies project that I just did with my students. This was one of those scenarios when I was like: "Ok, am I being a perfectionist? Or am I holding myself to a standard that is unattainable with the children that I have in my class? Or am I slacking?" You know? And I couldn't decide. I'm like well I didn't start this early enough. I gave myself four full days to finish it with my students. And the projects, our School Resource Officer

came and was like, "You know, these pictures, Elizabeth, they drew flags and they weren't even the right flags for the right sides." And I was like, I was already feeling bad about this project. Wondering like, you know, is this good enough? Or did I waste time? And it made me feel really bad about it. But honestly I did all I could. I did their Venn diagram for them. I gave them sentence frames for their paragraph so they could get started. And the only thing I gave them to do on their own was to research and draw a picture that represents both sides. He like came to all of my classes and made the kids, [he was] like, "You know central office saw these, um, saw these pictures that you drew that were inaccurate and it made Mrs. Elizabeth look like a really bad teacher. Like, he said that to all of my classes today. (Elizabeth, PD session 6)

She critically reflected on her experience by asking questions of herself about how she felt in the moment and how she thought about the experience revealed her underlying assumptions. Sharing the story and how it made her feel exposed her emotions and put her at risk of judgment from her peers, making it a vulnerable act. She continued to critically reflect on her experience saying, "Well, I, that's all [my students] could do! Or was it I just didn't give them enough time? I don't know. But surely they could draw. I don't know. And I've just tried to let it go" (PD session 6). Then, she made a deeper connection to why this scenario was so important to her overarching struggle with perfectionism saying, "but the reason that line stood out to me, 'Perfection is the enemy of done.' if I had gone back and said, 'No, do this again!' It wouldn't have been done on time". She wondered about perfectionism's relationship with completing the project. When she was asked what the most important thing about this project was, she replied, "That [my students] understand the material?" And then she contrasted, "That it's done!". Elizabeth toyed with the two competing ideas about the most important thing for this project. Before moving on, she

further analyzed her experience with this project and the humiliation she felt saying, “So maybe this is a perfectionism thing?” indicating that her desire for the project to be perfect as viewed by others was interfering with her values for the project: that the students complete the school wide project and learn something along the way. She found that her desire for perfection was outweighing her instructional goals which was a shift in her understanding of how she experienced the situation.

Elizabeth uncovered another new way to look at the situation stemming from our conversation about Brown’s *Daring Greatly*, “and another thing that strikes me from this is Brown said you strive for perfection because you think you're going to avoid criticism and ... you don't avoid criticism” (PD session 6). She realized that using perfectionism to avoid critique did not work for her. Then I reminded her that in situations like this it is good to consider what is most important to you. And she ends this episode of critical reflection by redefining her problem: “The problem is what is important to me is what other people think. That's the problem!” She uncovered an underlying assumption in her professional practice that was hindering her growth. And though she did not formally make this a professional learning goal, she continued to think about, question, and consider why what other people think was so influential in her life and, ultimately, she reported growth in this area: “I think I give myself a little more grace. If my students don't do well on something it isn't an end of the world situation. I can learn from it and move on more quickly than I could before” (Informal Check-in). Elizabeth’s critical reflection examined both the problem and her underlying assumptions, required her to be vulnerable risking judgment, emotional exposure, and uncertainty, and also helped her change her understanding of her experience.

Sharing own instructional needs. Across the 10 PD sessions, the participants would talk about what they needed to help improve their instruction. The supports they requested ranged from specific actionable support such as someone to help them score new assessment data to the broader support of someone to hold them accountable to the changes they wanted to make. Sharing their needs was a vulnerable act because when the teachers identified a need they were admitting a downfall that was again putting them at risk of judgment by their peers. The participants' frequencies of sharing their own instructional needs was consistent with their overall trend of being vulnerable: Elizabeth engaged in 63 percent documented times participants shared their instructional needs and Anne engaged in only 37 percent of the documented times.

Across the PD sessions the teachers would identify specific things they needed to support their growth. Elizabeth wanted to address her students' word pattern knowledge needs by teaching more specific lessons on word patterns, however, she shared with the group, "I legitimately don't know where to start at all" (PD session 7) which was extremely honest and vulnerable. Later on, Elizabeth was implementing a new word pattern knowledge assessment and asked for help scoring and interpreting the new assessment. Another example of a specific instructional need, Anne when talking about her small group instruction asked for, "a better progression for...comprehension skills" (PD session 6) to help her when planning the content of her small group lessons. Anne also found that she needed a more precise assessment to help with her small group planning. She put it:

Well I think I would like to really have a better idea, because like the information I get from the STAR Early Literacy, doesn't give me a reading level really. Like it says, it gives me the percentile they are in and that doesn't necessarily help me. So, I think that I would like to do [the QRI3] maybe on all of them except for maybe my lowest group, to

have a better idea when I am pulling texts for them to use, to know what level they are on for that instructional level. (Anne, PD session 7)

For both participants, when they took the vulnerable step of asking specifically for what they needed they received that help. Elizabeth got advice from Anne and myself on how to better meet students' word knowledge needs. And Anne received materials and advice from me on comprehension instruction; I went into her classroom and refreshed her on how to use the QRI-3 assessment; and I coached her to be able to use the assessment independently.

Both participants indicated they needed “accountability” throughout the PD to help them stay on track. Early on, when I asked them specifically what they would need from the PD, Elizabeth said “something to help me, holding me accountable! Like ask me if I've done it. Once you have asked me a couple of times, I will want to do it so I won't be embarrassed” (PD session 5). Anne concurred with her saying she needed, “kind of the same thing, like just being held accountable for it. Because I think ‘Oh I can just wing it’. And so I think, you know, you can't just wing it. So same kind of thing” (PD session 5). Later, when they were asked about what had been helpful Elizabeth said:

It's the following through, like sitting, before like sitting around and having coffee yes, we were talking about this. But I feel like [this PD] is almost accountability. Like, I actually need to make time to do this. You know? I mean how many times have I wanted to come and see Anne teach? So many! And I haven't until now. So, I think that is good. (PD session 9)

Elizabeth indicated that accountability—meaning following through with actions—had been helpful to her. During the final PD session, Elizabeth revealed that accountability had been working also by keeping her goals and ideas fresh on her mind. She said, “I'm really glad you are

reminding me of this because I can't even recall. Now, that you are saying it, I'm like oh yeah that is what happened!" (PD session 10) indicating how the PD also helped keep conversations, ideas and goals fresh on her mind. During that same PD session, Anne also agreed, "I like the accountability piece and I like meeting together...I do like having the accountability and all that" (PD session 10). During this conversation, the teachers established that they wanted to continue the accountability piece beyond their initial agreed upon terms. Once the official PD was over they wanted to continue to meet—less frequently—but continue to maintain accountability.

Accountability also showed up in Elizabeth's informal check-in as what she liked most about the PD. She put it,

It was great to HAVE [emphasis original] to carve out time for PD. I enjoyed sharing experiences with other teachers. It was nice to get validation from another teacher "in the trenches." It allowed me to have someone to go observe. I ended up using the lesson I observed in my class.

She further suggested a school level change:

For accountability purposes, I wish our PLCs had facilitators. At our school, no one (with the exception of 1st grade) actually has PLC meetings. In our case, in fifth grade, we use the excuse that we are constantly talking to each other and discussing matters. However, there is something to be said about having a set time to sit down, stay focused, and keep the conversation on teaching and learning.

When the teachers were vulnerable, risking social judgment, and asked for what they needed, they in turn received the specific and broad supports they requested that also facilitated their individual growth and change.

Speaking shame. The participants in this study talked about shame they experienced. Brown (2012) defined shame as “an intensely painful feeling or experience of believing we are flawed and therefore unworthy of acceptance and belonging” (p. 69)—also, the fear of disconnection. She found that shame was a universal experience, everyone experienced it unless they were anti-socials who do not experience any emotions and most people are afraid to talk about shame just because of its clandestine nature. In her research on women and shame, Brown (2006) also found there were a few areas where shame had the most impact on women: money and work, appearance and body image, motherhood, family, and parenting, and being stereotyped or labeled to name the few relevant to this study. Discussing the participants’ shame was a vulnerable act because they revealed their emotional selves, ran the risk of social judgment and uncertain responses. In this study, evidence of speaking shame appeared in 9 of 10 PD sessions. Elizabeth was documented as speaking the most shame (66 percent), followed by the facilitator (22 %), and then Anne (11%).

Elizabeth spoke about shame she experienced mostly around her work with one incidence of appearance and image. When thinking about ditching the basal, for example, Elizabeth pointed out her concerns about being a good enough teacher to teach without the basal. She put it:

another reason I think I am afraid to get rid of the basal, is I am like am I going to have gaps in my teaching? And I think it goes back to trusting myself enough. Am I going to have gaps?” (PD session 1).

She identified that she was struggling with the idea of being good enough to take a step towards one of her desired professional goals. Elizabeth also shared how shame kept her feeling unsure

about her practice. She said, “In my head, it's like not, it's not [ok]. You forgot that one standard” (PD session 3). She illustrated her internal struggle with shame saying:

...being enough as a teacher and I've literally spoken aloud “You are enough as a teacher. You are a good teacher.” But still in my head I'm like but no you're not. You could have done more. Like, no you're not, you're not like ‘this person’. And like even though I say it to myself, like I'm just faking it. ... That is the way it feels. And I can look at the scores and I'll be like [my students'] scores are great, you did a good job. And then I'm like scores don't mean anything, you know? I'm like what is my problem?

Her words clearly illustrate how shame is a battle she fights on the inside. Shame tells her she is not good enough and yet she tries to fire back with worthiness—I am good enough. Brown tells us that shame thrives in the dark where it is not spoken about; but when we speak about it, shame diminishes. Elizabeth's talk about how shame keeps her worried and interferes with her desired change likely contributed to her ability to quit relying on the basal as the sole source for her instruction, one of her learning goals, later in the PD.

Anne spoke much less of shame she experienced than Elizabeth did. When Anne spoke about shame she spoke more about shame in parenthood and appearance. She, for example, talked about how she struggled with being enough saying, “I guess for me it's more like being enough. Because, I don't feel like there is enough of me” (PD session 2). Her words indicated that she struggled with shame and being enough but in a more concrete way. Anne does not feel like there is enough of her to go around to meet all the needs of others place upon her. Whereas, Elizabeth understands that she is judging herself as not being a good enough teacher using an internal guide or measure for a good teacher. Anne also talked about an experience of shame with body image saying:

Like I still can't fit in to all of my clothes that I wore before I had my baby. Like it bothers me but there's really no reason for it to bother me. I'm still, I mean I've had 2 babies. I provided food for over a year for one and I'm on month 7 for the other and that should be like wow! But instead it's like 'oh, I still can't fit into my clothes and I want to eat everything in sight!' (PD session 3).

Anne struggled with knowing she should not be bothered or upset by how her clothes fit, however the fact that she could not yet fit in her old clothes still was troubling for her. Anne admitted that she struggles with shame more in her parenting than in her teaching. She claimed, "I get down on myself more as a mom than I do as a teacher. And so like I will be like 'I'm terrible at this.' 'This is horrible!' 'Why am I in this thing?'" (PD session 4). Again, Anne's struggles with her body image and parenting are curated by concrete experiences such as clothes fitting, or being available enough to support the others in her life. When Anne reflected on her personal changes as a result of this PD, she did not report any changes to her thinking about herself, but did report that she had changed how she thought about others, "through the discussions on vulnerability and shame, I feel like I am trying to recognize those traits in other people and trying to be more open to others" (Informal Check-in).

Share specialized knowledge and/or beliefs. Participants sharing knowledge such as their justified beliefs (Fenstermacher, 1994) or beliefs based on facts (Pajares, 1992) was deemed vulnerable because the participant sharing was risking judgment by and unknown responses from their peers. The kinds of specialized knowledge the teachers shared were instructional suggestions and administrative or policy advice. The trend for sharing specialized knowledge was the opposite the overall trend of being vulnerable, Anne engaged in 85 percent of the documented episodes of sharing specialized knowledge and beliefs and Elizabeth engaged in 15

percent of the documented episodes. Interestingly, Anne did not use any of Elizabeth's suggestions; however, Elizabeth implemented several of Anne's instructional suggestions.

Both teachers engaged in both kinds of sharing specialized knowledge: policy advice and instructional suggestions. Anne for example, used her experience as a looping kindergarten-1st grade teacher to provide evidence for her beliefs about standards for early literacy that came up in conversation. As a planned exercise during the first PD session, Anne and Elizabeth were discussing areas that needed to be strengthened at the state level and Elizabeth shared her thoughts about the new literacy standards: "I feel like the standards that we are given it is too much and it's not developmentally appropriate. Like especially Kindergarteners needing to read, like, at the end of the year. That's insane". However, Anne used her experience to provide evidence for her beliefs that were slightly contrasting Elizabeth's claims:

The thing is when you look at the standards though it is not saying that they need to read...independently. It says with prompting and support...Because if they can't read in Kindergarten, then they are going to struggle in first grade. But most of your kids can rise to that. (Anne, PD session 1)

Elizabeth also shared specialized knowledge stemming from her role on the Response to Instruction and Intervention Team (RTI2). Anne was concerned about one of her student's instructional needs conflicted with the expectations of the RTI2 protocol and Elizabeth offered her encouragement saying: "I don't think you're going to have to get into an argument. I think like what you say, the team will just, I think the team will do it. It's me, Ruth [a kindergarten teacher], and [our Assistant principal]" (PD session 8).

Both participants also shared instructional suggestions with each other. Anne's instructional suggestions pop up in 7 of the 10 PD sessions and vary greatly in the instructional

advice she provides to Elizabeth. During one PD session, for example, Elizabeth was seeking specific advice for how best to help her transition to small group instruction, better meet her students' needs, and support balancing her work-life. Anne suggested using Reading A-Z's leveled books as the instructional materials for her small groups:

Anne: Have you looked at reading A-Z much since we got the new [version]?

Elizabeth: I have, not much, but I have.

Anne: Because

Elizabeth: Does that make it easier?

Anne: I think it could make it easier! The kids do self-selection in there, I'll have to

Elizabeth: Really?! Well if you could, I think that might help if you show me how to use that.

They continued the conversation, even getting out a computer and Anne showing Elizabeth how to set things up for her classroom during this particular PD session. In the latter PD sessions, Elizabeth admits to completely transitioning away from her basal text to using Reading A-Z's leveled books as the instructional materials for her small groups.

On the other hand, Elizabeth's instructional suggestions occurred only during the last three PD sessions (8, 9, and 10). When Anne expressed her concerns about her vocabulary instruction, Elizabeth, for example, made a specific instructional suggestion to try Vocabulary A-Z, a component of ReadingA-Z.com:

Elizabeth: Have you checked out Vocabulary A-Z?

Anne: No, I meant to.

Elizabeth: I seriously love it and it was so worth it. And I think, have you ever taught the Journey's vocab?

Anne: No

Elizabeth: Ok, well Journey's vocab is crap so and this is so much better. Like

Cassie: Can you tell us why you think it is better?

Elizabeth: Um, I think, especially last year when I was looking at the Journey's words, they already, the kids already had those words in their vocabulary. And I just feel like

[VocabularyA-Z] is more on level. Especially since it is actually leveled in there for them.

Um, and then they provide, of course now I'm going to draw blanks, but, like the little activities they provide, it is not like write the definition, like, write this five times. It is actually stuff that makes them think! And I'm trying to think of one of them, but I simply can't right now. It's just better. (PD session 10)

Elizabeth eagerly presented a potential help for Anne's concerns about vocabulary instruction. Interestingly, the only specialized knowledge suggestions Elizabeth makes to Anne are about Vocabulary A-Z. Equally interesting is that by the end of the PD sessions, Anne has not tried Vocabulary A-Z, nor felt like she had improved her vocabulary instruction.

Seek input. Across the PD sessions, Elizabeth sought specific instructional input from the PD group, both the facilitator and Anne her colleague. Anne, however, did not engage in seeking input from the PD group. To be classified as seeking input, the participant specifically asked another participant for their advice. Seeking input was deemed vulnerable because Elizabeth felt she was risking judgment and uncertainty (Personal Communication, March 12, 2018).

Elizabeth sought specific instructional input from the facilitator 50 percent of the time and from Anne 50 percent of the time. There is no strong qualitative difference in the kinds of things she asked of either the facilitator or Anne. Elizabeth, for example, asked both Anne and the facilitator at different points throughout the PD if they had anything else they wished to add

to the conversation. Elizabeth was struggling with how to help some of her ELL students with their word knowledge during their small group time, she specifically asked the facilitator:

So how do you think, what do you think, like in my literacy block with this class, should I start with like a read aloud and then break into the small groups and only do like one small group a day...?

She was revealing an area she was unsure about in her instruction risking judgment and uncertainty within the group. However, she chose to take those risks by asking these kinds of questions of the group members. Similarly, Elizabeth was still working through how to support her students' word knowledge and Anne had shared as qualitative spelling inventory with her to try out in her classroom and get a better handle on how to address their instructional needs.

During the conversation, Elizabeth asked Anne specifically about how to implement the assessment with her class having such a wide range of abilities. Elizabeth asked Anne: "So would you suggest, Anne, that I do [words 1-15] with these two groups? And then this one I could..." (PD session 6) Anne interrupted her with her suggestion. Elizabeth tended to take Anne's advice and apply it to her classroom more readily than the facilitator's advice.

Empathetic actions. Empathetic actions were distinguishable by discerning actions where participants were trying to see something from someone else's perspective, be nonjudgmental, or communicate understanding of another's feelings (Brown, 2006; Wiseman, 1996). Validation, connecting with participants, and reframing scenarios were all considered empathic actions based on my analysis and the participants' feedback about their experience. Both participants engaged in a variety of empathetic actions, however, Anne engaged in 63 percent of the empathetic actions, where as Elizabeth engaged in 36 percent of the empathetic action, an interesting contrast to the pattern of participation for vulnerable actions. In the informal check-in Anne also

referenced her empathic role inside the PD as to provide support saying: “I...gave support in coming up with ways to work on reading areas that need to strengthen” (Anne, Informal Check-in). Elizabeth, however, did not reference her role in the PD as to provide support.

Validation. During the PD session, participants positively responded and affirmed the other participant’s words or experience evidenced by words such as “I agree with you”. To be considered an affirmation, the participant had to say more than a “yeah” or “Yes!” Both participants used validation across the PD sessions. Consistent with the overall ratio of empathic actions by participant, Anne validated Elizabeth 85 percent of the identified validations and Elizabeth affirmed Anne only 15 percent of the identified validations. In addition, I as the facilitator affirmed both teachers across the 10 PD sessions. I affirmed Elizabeth at a slightly higher rate (50% of my affirmations across 10 PD sessions) and Anne at a slightly lesser rate (30% of my affirmations across 10 PD sessions). The remaining 20 percent of my affirmations were directed at times in the conversation when both teachers were the recipient of the affirmation.

When the teachers were talking about Elizabeth incorporating a recent Newberry Award Winner into her curriculum, for example, and Anne had read the book and give it an “ok” review. Elizabeth pointed out, “We are talking about visualization right now.” Anne replied, “Well, it is perfect for that. I can see the teaching points, there were just some parts that I was like I just want to know what happened” (PD session 10). Here Anne affirmed Elizabeth’s choice of the text validating how it would be a useful tool for the standards she was teaching. Elizabeth even said that one of the things she liked best about the PD was that, “It was nice to get validation from another teacher ‘in the trenches’”(informal check-in).

Connect with participant. When a participant made a statement that connected to another participant's experience, sometimes this looked like one participant telling a related story in response to what one participant said. Other times connecting with a participant looked like a participant saying a derivative of "me too". Telling similar related stories and exclaiming "me too" are examples of times when one participant illustrated her understanding of the other participant's feelings or situation demonstrating empathy. Consistent with the trend for Empathetic actions, Elizabeth made 20 percent of connections with Anne and Anne made 80 percent of connections with Elizabeth.

Interestingly, Elizabeth, with only 20 percent of the connections, had the only cases of explicitly saying derivatives of "me too". After watching Brene Brown's first TED talk *The Power of Vulnerability*, for example, Anne described what in the video made her uncomfortable saying, "I guess for me it's more like being enough. 'Cause, I don't feel like there is enough of me." And Elizabeth responded with "Well if it makes you feel any better I feel the same exact way. So we are in it together" (PD session 2). Elizabeth articulates that she too has a hard time feeling like she is enough. She connected with Anne's feelings and illustrated to Anne how she connects with her experience.

Anne and Elizabeth both made connections with each other by telling stories expressing similar emotions or situations communicating their shared experiences. Elizabeth, for example, shared a story about how she struggled with having confidence in her abilities as a teacher. She often wondered if "what I am doing truly effective?" And she struggled with giving herself credit for her successes. She pointed out that last year, "85 percent of [my students] were proficient in Reading. Which is pretty big. But I am like is it me?" (PD Session 1). Anne

connected with Elizabeth's feelings and experience by telling a story about a time that she credited herself too much with the failure of her students. She told it:

[That year] I was disappointed because I had to take the kids' STAR test for my achievement score and I got a 2 on that. And it is because I wasn't there. I'm like that's why it was. And they took them on Chromebooks, And they...had never used Chromebooks. It's not like this year, if they took them on Chromebooks they would be fine with that...And so it stinks because like they did pretty well even midst all of our insanity in that mid-test. And at the end of the year, I wasn't there and at the end of the year, I think they don't care. I think it's hard to take, I think your mid-test to some extent is a better indication than the end, because at the end they are just like nah, click. (PD session 1)

Anne's story seems to empathetically say, "I feel you, Elizabeth. I too had a situation where I did wrong by myself." Elizabeth used this same technique back to Anne. Anne shared a situation where she visited her niece's primary school and realized that her students at her school came to school with much greater needs than students who attended her niece's school. Elizabeth listened intently and then connected with her story saying:

Yeah, um, when I interned in the kindergarten class at Regal Ridge. That was the hardest thing I ever did. Kindergarten teachers should get paid more. But they all came to school knowing how to read. Every single one of them. And it was still being in that kindergarten room was the hardest thing I ever did when it came to teaching. And they could all read. I, it is crazy the differences in ability. Specifically, when it comes to socioeconomic status. (PD session 5)

Elizabeth's story concurred with Anne that at different schools students bring differing abilities through the door with them. The impact of empathy lies with the recipient. Both participants made connections with the other participant, however, Elizabeth received a significantly larger amount of empathic connections.

Reframe scenario. During the later PD sessions, sessions 6-10, the participants began a new practice of presenting to their peer an alternative way to view that participant's experience. I labeled this new practice *reframing a scenario*. Reframing a scenario was considered an empathetic action because the participants felt they were trying to see things from the other participant's perspective. Anne engaged in reframing situations for Elizabeth 95 percent of the time and Elizabeth reframed for Anne only 5 percent of the time.

In one example of reframing a scenario, Elizabeth told a story about a time that someone made her feel inadequate as a teacher, and Anne reframed the story saying:

Anne: I think all of this plays into all the things we have talked about that you've been struggling with your timing, teaching the subject area, finding time for that subject area. So it is like all of these things hitting the, like, sore spot anyways... Which is always, just like, Ugh! This is awful! (PD session 6)

Anne listened to Elizabeth share her experience and saw an alternative perspective that Elizabeth should consider. Then Anne pointed out the things that Elizabeth overlooked such as her struggles with timing, teaching content that make Elizabeth particularly vulnerable to shame-filled feelings of inadequacy.

In another example of reframing scenarios, Anne was talking about her practice not being well planned, "And I wasn't very well planned this week. I mean we are doing ok, but I just with being out and I took that stuff home and didn't work on it. And because we just did...even with

the week off.” And Elizabeth reframed the situation for Anne, saying “Especially with the week off...because you had both girls, so it is not a week off” (PD session 10). Elizabeth reminded Anne that expecting to get things done during a break from school is unrealistic without childcare.

Content. The professional development in this study was designed to support teachers’ whole(hearted) development, meaning they would change their instructional practices and grow their mental complexity. My analysis of the content of the literacy PD revealed evidence that the participants in this study experienced *a learning process* grounded in Transformative Learning Theory and researchers’ suggestions for fostering transformation. Transformative Learning Theory holds that in order for transformation to take place, learners need to experience, at minimum, a disorienting dilemma, rational discourse, and critical reflection (Mezirow, 1991, 1997). The two participants in this study identified two activities inside the PD as having a strong impact on their perceived growth and development that functioned as disorienting dilemmas and the beginning of *the learning process* (Informal Check-ins). *The learning process* in this study was comprised of two activities with developmental intention (Taylor, 2000) that operated as disorienting dilemmas, and critical reflection and rational discourse carried out when the participants analyzed their beliefs and identified tensions surrounding the disorienting dilemmas and potential changes (See Figure 5 for an illustration of *The Learning Process* and its relationship with Transformative Learning). Finally, the transformative learning process resulted in one teacher taking responsibility for her learning and instigating professional development activities on her own. And the other teacher maintained a traditional-learner role and changed some of her instructional practices. The last section of this chapter will discuss any resulting changes in the participants’ personal and/or professional practice.

Planned activities with developmental intention. When creating a learning environment designed to support changes in a person's way of knowing, Taylor (2000) found that adult educators used activities with developmental intention. Taylor labeled the tasks activities with developmental intention because educators were not always able to ensure that the students will grow developmentally. However, the activities were designed to help students to examine their current held beliefs first and then analyze their beliefs using a co-created framework that evolved from learning with their peers (Taylor, 2000). The facilitator of this study planned two activities with developmental intention according to Taylor's definition of the term: the ideal literacy block activity, and negotiating shame and vulnerability. The two teacher participants in this study identified these two activities as important pieces of the literacy professional development that influenced the changes they made (informal check-in).

Ideal Literacy Block Activity. During the second PD session the participants were asked to write up their ideal literacy instructional block if they were given all the literacy resources they needed including time, money, and personnel (See Appendix F for full description of the ideal literacy block task). The participants performed this task in silence on their own, knowing, however, that they would be sharing their thoughts inside the PD group. The participants were provided as much time to write up their ideal literacy block as they needed. When they finished the write up, the members of the PD group then shared aloud their own ideal literacy block. At the end of the first discussion of this task the participants were asked to discuss the similarities and differences across the ideal literacy blocks shared to generate some common held beliefs about literacy instruction. The ideal literacy block was the foundation of several other conversations about the participants' current literacy practices, instructional goals, and instructional progress.

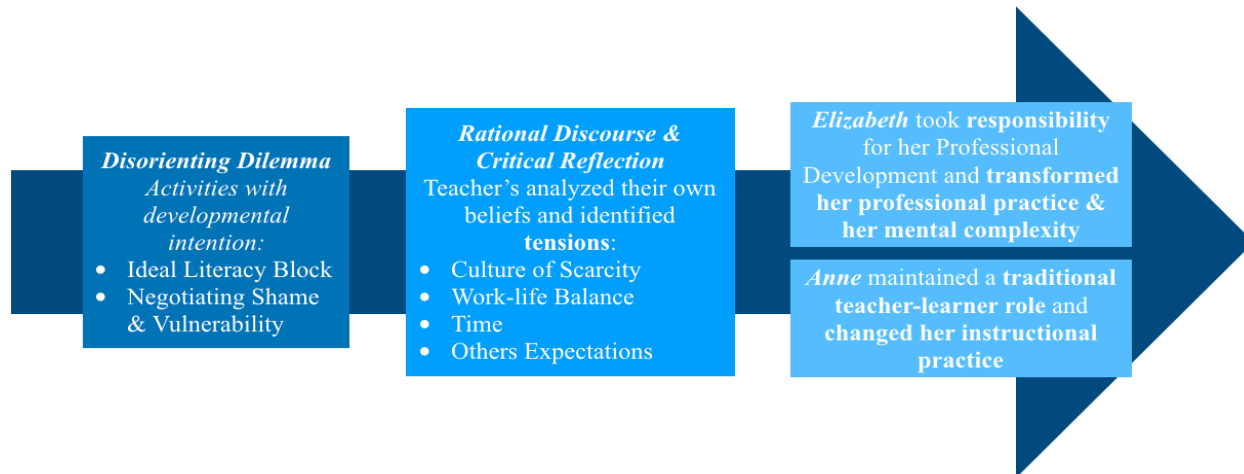


Figure 5. The Learning Process participants underwent in the literacy PD.

Anne emphasized the significance of the ideal literacy block activity saying that establishing her ideal literacy block, *and* through further discussion and reflection on it, she improved her instructional practice:

I mean if anything just getting me to think about what you are doing in reading and how you can make it more of what you want it to be. I mean even if we had just had that one meeting where we sat down and wrote that out, because like for me just looking at that and thinking ok why can't I make this work? and Then I worked on making it work, was huge! (Anne, PD session 9)

Anne attributed this portion of the PD, in accordance with other interactions such as reflection, as a means through which she enacted a change to her instructional practice. Interestingly the content pieces are not impactful by themselves. Anne indicated here that just sitting down and writing out how she wants her literacy block to go—establishing her beliefs—was important. But it also took thinking about and asking herself “why can’t I make this work?” to help her focus in on a specific action point. She further illustrated this point when she responded to the question “What in the PD, specifically, can you attribute your instructional changes to?” in the informal check-in saying, “Having the space and support to talk about what was ideal and the kind of classroom I wanted to have and then given support to make it happen” (Anne, Informal Check-in). For her, it was having to establish her ideal literacy block paired with the talk around her ideal literacy block that helped her move from idea to action.

Negotiating shame and vulnerability. The topics of shame and vulnerability were introduced using Brene Brown’s two TED talks: *The Power of Vulnerability* (2010) and *Listening to Shame* (2012, March) and were negotiated through discussion (see Appendix F for description of the tasks).

Elizabeth's journey with shame and vulnerability began after viewing Brene Brown's (2012) TED talk, *The Power of Vulnerability* during the second PD session. She indicated that though vulnerability may be critical for learning it is hard for her and uncomfortable at times:

Well... I think learning only happens when you're vulnerable. And I think that is why it is so hard and uncomfortable. But I think that is the only time that you can really open yourself up to new information, doing things a different way if you are open enough to listen or try something new. (Elizabeth, PD session 2)

She reflected on her level of comfort with vulnerability and began asking questions of herself saying:

I started thinking, when am I, like, that's how I learn, when am I like putting myself out there, you know? When we have...evaluations/observations...that is the most uncomfortable I am like at work ever. And it's like OK, I need to be vulnerable myself so I can learn more about myself when it comes to teaching. (Elizabeth PD session 2)

Her entry level questions of when am I vulnerable lead her deeper into reflection asking why can't I be vulnerable? She followed up her oral self-reflection saying, "I love it when other people are vulnerable, but why can't I do that for my students, you know? Or relationships, in relationships, or whatever" (PD session 2). Thinking about vulnerability and learning as it related to her life functioned as a disorienting dilemma (Mezirow, 1997) for her causing her to think more deeply about vulnerability in her experience.

Later in the same PD session she shared, "I can be way more vulnerable in friendships and relationships, but at work it's like this facade of everything is like I know what I'm doing. You know?" During her reflection, she realized she is much better at being vulnerable regarding personal relationships and vulnerability around her work is much more challenging for her. Her

reflection also uncovered a barrier for her vulnerability at work: she began to understand that her belief that she needs to know what she is doing at work holds a strong influence over her ability to be vulnerable.

When asked about how these ideas are related to our professional development she reluctantly acknowledged “Apparently, we need to be vulnerable. Which is making me so uncomfortable. But apparently, that's what needs to happen” (PD session 2). Her statement revealed her knowledge was outrunning her ability by saying we need to do this—be vulnerable—but it is not comfortable. And yet she appeared to be willing to try and learn when she said “but...that’s what needs to happen”. She went on further to note that the established level of trust among the members of the PD would make being vulnerable “easier” for her. She explained it saying,

I'm not really fearing...judgment with you guys. I feel like, well, even if at the end of this they find out that I really don't know what I'm doing, I'm an imposter, you know, they are still going to love me, you know? I think that is part of it too. People don't want to be judged by people they respect, maybe, in the field. (PD session 2)

She reassured herself that there is no room to fear judgment inside the PD because the people present care about her as a person. When she made the distinction between people who love her and people she respects, she indicated she would feel more comfortable being vulnerable with people who care about her than with people she respects. Brown (2012) identified that people often make an incorrect distinction between those who care about them and those they respect. Instead Brown suggested people should care about critique and feedback from people who care about them over others. Elizabeth’s distinction, then, indicated that she still struggled with whose voice to value and listen to and how to navigate outside critique.

Later, Elizabeth thought about the limits and impacts of vulnerability. She first questioned whether a person could experience joy without being vulnerable: “if I'm not being vulnerable when it comes to my work and whatever, can you ever experience joy with your students?” (PD Session 2). Her query suggested she was wondering about the impacts of avoiding vulnerability knowing it shared a relationship with joy. She continued to trouble the relationship between joy and vulnerability regarding her work saying, “like if I'm not being vulnerable when it comes to my work can [I] ever experience Joy with [my] students? ...Can you [find joy in the work that you do] without being vulnerable? That is my question” (PD session 2). She understood there was a relationship between joy and vulnerability and it was important to her to have joy in her work, but as she stated previously she was uncomfortable with being vulnerable so she wondered if she could have one without the other.

Later, during the discourse she realized that she had wrongly equated vulnerability with weakness:

I don't know if [Brene] was the one that said that she equated vulnerability with weakness. Which kind of, I kind of feel like I fight, I try to fight against thinking that way, but still in the back of my mind I feel like I'm being a little weak if I am being vulnerable. Because you have to, you know, have the façade of having it all together, you know? (Elizabeth, PD session 3)

She came away with a new understanding that equating vulnerability with weakness is related to her struggle to have it all together—her struggle with shame.

She troubled why vulnerability was so unpalatable, asking “Why is it opening yourself up to being harmed or attacked? It could be maybe good things are coming your way?” and she realized some false thinking of her own. She uncovered that when we are vulnerable, often there

is an equal likelihood of positive or negative outcomes and so fearing the worst may not be a good strategy. At this time, she maintained her understanding that vulnerability was “just being open”. In a later PD session, she shared a story of a student who was not able to be vulnerable and was not able to learn:

I had a student last year who is brilliant. He is so, so bright but he is a terrible speller. And he would be paralyzed when he was writing. Not because he didn't have amazing ideas in his head, but because he was so afraid that I was going to take points off or get mad at him for not spelling things correctly and I finally just. Well actually I found out in a parent teacher conference that his dad and his sister would like make fun of him for his spelling and I was like you know that has nothing to do with intelligence! And the mom was like, "What?". Yeah, nothing to do with intelligence. So, I talked to the student the next day and I was like, you know just try, I don't care if you spell every single word wrong, sound it out and I will be able to sound it out. And he, once he heard that he wrote the most creative stories. And it was like, once he was not afraid to fail a little bit this beautiful writing came out of him. (PD session 3)

Then she realized how his story overlapped with hers:

I wish I could apply that in my life, because I am telling my students all the time we are here to learn. I don't care if you mess up! That means you are trying. But I don't give myself the same grace. (PD session 3)

By sharing a story about her own student and relating it to what she was learning about vulnerability and shame, she was able to better see how she vulnerability and shame work in her life experiences.

In the next PD session, after discussing some of the reading from *Daring Greatly* (Brown, 2012), she demonstrated a newly developed persistence to keep working on being vulnerable. She indicated that reading Brown's book helped her because, "I'm like ok if they are still working on it, I've got a shot" (PD Session 4). She also wanted to know how to negotiate the feelings around being vulnerable saying, "A question I would want to ask [Brene] is...does that, like, in that moment are you faking it or are you being vulnerable? Are you faking it until you make it?" Elizabeth is very curious about how to incorporate Brown's new ways of thinking. Reading parts of *Daring Greatly* caused her to think, examine her current experiences, and ask questions. Later in the same conversation, she connected how shame stands in the way of vulnerability in her job and uncovered how she holds a double standard for self and others:

Well, it made me think of like, like being enough as a teacher and I've literally spoken aloud, "You are enough as a teacher. You are a good teacher!" But still in my head I'm like "but no you're not. You could have done more. Like, no you're not, you're not like this person." And even though I say it to myself, I'm just faking it. That is the way it feels. And I can look at the scores and I'll be like their scores are great, you did a good job. And then I'm like scores don't mean anything, you know? I'm like what is my problem?"

She realized that in practice she holds one set of standards and expectations for others and another higher and more rigorous set of expectations for herself that causes her to experience shame—believing she is not good enough.

Finally she realized that she expects her students to be vulnerable and agreed she should hold herself to the same standard:

I do have something to say about vulnerability. So, I have been thinking in just the last few seconds about my first class that struggles so much and how much I ask them to be vulnerable. Like I will, like I feel like I've created a comfortable space for them but I don't know. So I will ask them to read aloud in front of the class. And that is asking them to be very vulnerable and I've just been sitting here thinking for the past five seconds, that if I ask them to do that, you know, if I expect it from my students, then I should expect it from myself because, with all that we've learned here, that's what it takes to be a good teacher and to continue learning and perfecting your craft. Not perfecting, (Elizabeth, PD session 10)

During the informal check-in, Elizabeth provided evidence of her growth saying, “I think I give myself a little more grace. If my students don't do well on something it isn't an end of the world situation. I can learn from it and move on more quickly than I could before”. And because of her growth she is seeing changes in other areas of her life:

Because I'm not feeling like every failure is the end of the world, I am less stressed in general which has had a positive effect on my students and family members. Students can sense when their teacher is stressed and it definitely affects them.

Elizabeth's journey with shame and vulnerability illuminated the work of critical reflection and rational discourse to accomplish growth and development. Elizabeth's negotiation of shame and vulnerability included critical reflection on how she experienced shame and vulnerability and rational discourse evaluating her understandings, listening to alternative view points, and sharing experiences. By the end of the PD sessions, she understood the importance of vulnerability regarding growth and learning and revealed how she rewired some of her thinking to see herself less as a failure.

Anne's experience with shame and vulnerability started out as she outlined what vulnerability meant to her:

I think it means like having an openness and being open and in some ways you are like open for other people's input or open to, not necessarily, be criticized. But when you're being vulnerable that's what you open yourself up for. (PD Session 3)

Her initial understanding of vulnerability grasped the openness of vulnerability and yet was closely associated with criticism. She continued to flesh out her understanding of what it means to be vulnerable sharing that, for her, she associated being vulnerable with when bad things happen. She put it:

I feel like sometimes you associate vulnerability, and this is because I read a lot of murder mysteries, but like, but you know like you associate that word with um, negative things happening because you were vulnerable. Not necessarily like physical negative bad things happening, like violence, which is not really, like it is just one of my associations with it. I think. Not in the context we are talking about it...And you think, I think too, maybe being female, you think about that. Like, um, you know, going to a big university and walking around campus. I mean we don't think about it as much where we live here. But when I lived in Nashville, when I had to walk somewhere by myself. Or in Knoxville walking somewhere by yourself. So you like feel vulnerable because you are female and you're by yourself. And that's kind of your association. (PD Session 3)

She understood vulnerability to be a negative thing because she connected being vulnerable to the bad outcomes that occurred. In this same conversation, she pointed out that vulnerability was weakness: "I think you think of your, like the things you think you are weak in are, you associate that with your places that you are vulnerable" (PD session 3). She ended her discourse around

the meaning of vulnerability resolving to focus on the positive side of vulnerability saying, “Trying to be open. I’m going to say that instead of vulnerable. I think it sounds better. It has a more positive connotation than ‘vulnerable’” (PD Session 3). Anne understood vulnerability to carry a negative—almost dangerous—tone and chose to disassociate with the danger of vulnerability opting instead for the safer idea of openness for her understanding of what it means to be vulnerable.

When Anne reflected on vulnerability in her life, she found a difference in her abilities to be vulnerable at work and at home. She shared:

For me, I think it is much easier to be vulnerable, evaluations don’t bother me, to be vulnerable in this environment than it is to be vulnerable in my personal life. ...I’m good at feeling like everything doesn’t have to be perfect here. (PD session 2)

She understood that she was more able to receive feedback and critique at work than at home.

She shared that at home she was much more critical of herself, saying:

Like I get down on myself more as a mom than I do as a teacher. And so like I will be like “I’m terrible at this.” “This is horrible!” “Why am I in this thing?” And then I have to like stop and be like “Ok, like these babies didn’t just happen. Like God had a role in that. So if he gave me them, he made me their mom, then I can do it.” And talk myself through. (PD session 4)

Her trend of being more critical of herself at home than at work resulted in her being more comfortable being vulnerable at work than at home.

Anne’s self-awareness came to fruition in the final PD sessions where she shared some vulnerable places in her instruction. She began by sharing an area that she wanted to continue to work on in her reading instruction saying, “I know I’m still not picking the right leveled books

with reading A-Z. So, that is kind of where I'd like, why I'd like to do a little assessment to be able to be able to pinpoint a little more" (PD session 10). Anne allowed herself to become vulnerable and discussed things in her practice that she knew she still struggled with such as matching texts to readers. When she reflected on the things that she had learned across this PD alongside some of her own ongoing professional development practices of participating in "Teacher Instagram" she found another area of her practice she wanted to work on:

I was thinking there has been this conversation on like Teacher Instagram here, maybe in the last year, about the Black Lives Matter Movement and um some political things. But a lot about social justice... so a lot of it has to do, like, these are tough conversations as white women. And part of it is you have to be, you have to kind of examine your own bias, your own experience. Or maybe you have to put your own stuff to the side. But that makes me think of being vulnerable, because it makes you uncomfortable. But that is the only way you can like grow. So, there was a whole discussion about how if you are just talking about leaders of color on MLK day, if that is the first time that you have pulled out one of those books, which it is the first time I have, like you are really doing a disservice. And so I have been reading that and thinking about it. But not really sure of where to go with it. (PD session 10)

Learning about vulnerability and observing the conversation on Teacher Instagram about social justice practices converged for Anne as a disorienting dilemma around her literacy instructional practices. She continued to wonder about these new ideas saying, "it made me think, ok, what can I do to change that. But it was, like you have to be, kind of, uncomfortable with that. And thinking about what you are doing and how you are impacting or not impacting..." (PD session 10). She began to understand how making changes so that her instruction is more culturally

relevant would require some vulnerability—willingness to examine and question herself and her practices. She also reflected on her understanding of the importance of making her literacy practices more relevant to her students:

It is such an important conversation to be having now. Like it's important with our current political climate and how people, like to be having those conversations. Teaching the kids that this is how it used to be and yeah, it's, there's still a long way to go, but we have gone far, we don't need to go backwards. (PD session 10)

Her vulnerability presented as willingness to examine and question her practices and the importance she placed on making her instruction more culturally relevant led her to a new practice she wanted to try:

Which I have been thinking about doing a unit on culture and like really looking at the kids' culture, which our social studies standards have to do with like comparing different cultures. I think like maybe getting to know everybody's different culture, and different...I don't know. I was trying to think about ways that I, because yes I could talk about leaders of color but in some ways that is not going to relate to them and get that point really across because they don't, they can't hold on to anything with that. (PD session 10)

Anne and Elizabeth both negotiated new understandings of shame and vulnerability; however, their journeys were quite different. Elizabeth began the PD with the disorienting dilemma of questioning why vulnerability was hard for her. Anne began by disassociating the negative parts of vulnerability from the openness necessary for vulnerability. Elizabeth worked through critical reflection and engaged in rational discourse about shame and vulnerability and ended up with new internal thinking about what it means to be vulnerable and a new willingness to do so. Anne's disorienting dilemma came at the end of the PD and was not about shame and

vulnerability, but about literacy instructional practices that she wanted to change. Both participants' journeys are related to the transformations and near transformations they observed.

Tensions. While negotiating their desired changes, the teachers revealed a variety of tensions that made becoming the teacher they wanted to be more challenging. I chose the word tension because in all instances the teachers struggled with how they experienced these themes and their work as teachers. Identifying and discussing tensions was significant when considering Brown's shame resilience because as she notes, our culture and society influences how we experience shame. Specifically, in American society women are most likely to experience shame around their "appearance and body image, sexuality, family, motherhood, parenting, professional identity and work, mental and physical health, aging, religion, speaking out, and surviving trauma" (Brown, 2006, p. 48). The tensions evident for Anne and Elizabeth were: our culture of scarcity, work-life balance, time, and expectations. All of these tensions are directly related to the social expectations of American society as indicated in the list of shame triggers for American women. Our culture of scarcity, for example, refers to society's focus on lack and comparison and for our two teachers they struggled with lack in their jobs and roles as wives and mother. The tensions showed up in 8 out of the 10 PD session transcripts. Both teachers struggled with most of the tensions identified even if in their own personal interpretation of the tension varied. Elizabeth, however, was the only one who struggled with other people's expectations of her.

A culture of scarcity. A culture of scarcity refers to American culture's obsession with lack, specifically what we, as individuals, lack things when compared to the next person (Brown, 2012). Brown (2012) defines a culture of scarcity as being marked by shame, comparison, and disengagement. She further points out that shame is believing that we are not worthy of

connection; comparison refers to society pushing only one acceptable way to exist over the rest; and, disengagement means that people in the society are unwilling to share their story, often experience loneliness and isolation, and struggle to be seen or heard (Brown, 2012). Our culture of scarcity became an identifiable tension for these participants as they specifically struggled with shame—am I enough—and comparison.

Characteristic of a culture of scarcity is comparison often masked by the desire to have everything in your life going exactly right. Anne found the pressure of society's expectations of perfection interfering with her ability to be vulnerable. She found that at times she wanted to hide behind a mask of perfection instead of work on her practice. She described her struggle with being honest instead of perfect saying:

Being honest and upfront not, you know, I think sometimes I have a tendency to want to hide in the idea that everything is ok. Especially like, you know, if there is a lot of balls in the air between being a mom and teaching and everything. And trying to act like I have it all together. And some days you just don't. (Anne, PD session 3)

She illustrated her need to be honest and upfront contrasted with her want to hide behind a mask of perfection because there is not enough of her to go around. Similarly, Elizabeth struggled with being enough as a teacher. She found that the idea of am I good enough hindered her ability to see the good going on in her experience. She shared:

like being enough as a teacher and I've literally spoken aloud you are enough as a teacher. You are a good teacher. But still in my head I'm like but no you're not. You could have done more. Like, no you're not, you're not like this person. And like even though I say it to myself, like I'm just faking it. (PD session 4)

Elizabeth illustrated the internal struggle she had with being enough. She found that her struggle with enough made it hard to get past the idea that she was not good enough to be able to do better. She confided:

See, being that person that couldn't let [the basal] go. I will tell you why. It is terrifying. That you don't trust yourself to be able to do it. You know, if you get a premade system that's been proven, "proven" to work that the county has bought for you. If you don't trust yourself and your abilities you are not going to be able to let it go. (PD session 8)

She found that society's unrealistic expectations to be "enough" and how she saw herself as not good enough, kept her from being able to take desired steps towards improving her practice. Interestingly, Elizabeth actually made these changes likely due to her ability to talk about them during the PD.

Work-life balance. Work-life balance was a recurrent theme for both participants. Work-life balance as a tension was defined as a struggle the participants experienced when they found their job and another role they hold such as wife, mother, daughter, or friend were in conflict. Both teachers discussed how family time can take precedence over work beyond school hours. Anne believed that her family interfered with her ability to complete work beyond school hours "because [she] will take stuff home but [not] necessarily get to it because there's lots of stuff going on on the weekends and [she's] just too tired sometimes to" (PD session 5). Elizabeth believed that she struggled to make work a priority over family time:

Along with planning, when it comes to picking books the children will like or picking a selection that you think a child might be interested in, like I don't have the time to go and research all of that and find these books for the kids. You know, in my head I'm like when I'm away from here I have a husband. I have parents, I have siblings. I have things I

need to be doing that are more important to me than this. Or not, more important, no, they are more important. (PD session 5)

She finds that it is hard to complete work outside of school hours because of her roles as a wife, daughter and sister and how they take priority in her experience. She further illustrated her struggle saying:

I guess making it a priority is standing in my way. But that is not going to change....Family will always be more important than my job. I don't like how that sounded coming out of my mouth but it is the truth. (PD session 5)

Elizabeth's priorities make enacting changes to her practice more challenging when those changes require extra time and work.

To further complicate matters, Anne and Elizabeth both sense external pressure to sway their work-life balance to favor work:

Anne: I think it's harder when you are a teacher, because what we do is so important...And people feel like it should be all that you do.

Elizabeth: Yeah. Especially here. There is pressure, coming from the top down that this should be the most important thing to you. Because I feel like, to our principal her job is more important than her family. And I feel like she expects that from us too. (PD session 5)

The point is creating work life balance is hard, when your priorities are your family when you are not at work, especially if you are trying to create changes that require extra time.

Time. Allington's (2002) article *The Six T's of Highly Effective Teachers* pointed out the importance of teachers having sacred instructional time. That schools and administrators should

protect the time teachers have to teach. In this study, the teachers pointed out how they were struggling with having enough instructional time to do the necessary things. Even the threat of not having enough time due to school events was frustrating to teachers and left them wondering how to navigate this tension. Both participants in this study found that time was a real struggle point for them when trying to implement their ideal literacy practices. When Anne compared her values to her actual practice she followed up the conversation with, “But we need way more time...That is the only thing that I can come up with as to why I can't make this happen” (PD session 4). Elizabeth agreed and further illustrated her struggle with time saying:

Yeah. And then there is always one day a week that we are having an assembly or Dare is here or 4-H, and I can't get, like there is no flow. They are always missing something, you know?... Or a teacher is out, and you're combing classes and you can't manage and teach at the same time... And my first class is so difficult because I am teaching kids who are all the way to kindergarten level and all the way to 4th grade level. (PD session 5)

Both teachers agreed that they lacked enough instructional time to do all the things they felt were instructionally necessary.

Other's expectations of me are important. Elizabeth was the only one who presented a struggle with other's expectations of her. When thinking about moving away from the basal Elizabeth pointed out her concerns about what her teammates thought about her practice. She said:

Yeah, I am pretty sure my team would riot if I broke away from the basal and I am not ready...I am not ready to rock the boat my first year in 5th grade. I'm just not going to do it if it is going to piss them off! (PD session 5)

Knowing their displeasure interfered with Elizabeth's belief in her ability to change this one aspect of her instruction, teaching from materials beyond the basal text. She went on to uncover that, "The problem is what is important to me is what other people think. That's the problem!" She finally described her struggle with others' expectations saying:

For me it is a personal battle with, kind of being a people pleaser and trying to check all the boxes and do what central office wants me to do, and do what my teammates want me to do, and do what they office wants me to do, and make sure that I am meeting all the criteria in the TEAM evaluation. But I need to put that somewhere else and just focus on what I know is the most important: and that is the student. (PD session 7)

Teacher instigated professional development. One interesting evolution from the learning process was the teachers started making or suggesting their own plans for PD they believed they needed to support their own learning. Across the PD session, Elizabeth planned and followed through observing Anne's instructional practice, Anne suggested a small group planning session that I as the facilitator implemented, and at the conclusion of the PD Elizabeth suggested and Anne agreed that the PD group should continue to meet though less often than before. Elizabeth's actions suggested she took responsibility for her own learning by instigating helpful PD practices. Anne's suggestion, however, indicated she maintained a traditional teacher-learner role.

Observed each other. Elizabeth toyed with the idea of improving her spelling/phonics instruction. After she realized she did not know how to implement one of Anne's suggestions, she asked Anne if she could observe her using the strategy in her classroom. After the completion of the observation Elizabeth described its impact saying:

Um, it was really good. I got to see how it work and I could, and once I saw, because I was asking and I feel like I didn't ask it the right way, I was like well why is this important? Like why does it work? But when I saw it in action I was like that is why it works. Ok. The way Anne is saying "Ok, we are going to replace one letter to make it say this." Or "What letter goes at the end to make it the long i sound." I'm like ok that is why it is important. Um, because they are, you are not just drilling, you're, it's, I saw what you were say...So, I watched her and I was like ok, this is great! The next day I did the same lesson in my class, and your first graders just blew my kids out of the water and I was like ok, we're going to have to do some work here. (PD session 9)

Elizabeth emphasized the impact of the observation on her practice during her informal check-in saying:

I enjoyed sharing experiences with other teachers. It was nice to get validation from another teacher "in the trenches." It allowed me to have someone to go observe. I ended up using the lesson I observed in my class.

Small group planning session. After both participants agreed to focus on small group instruction, Anne suggested that: "Maybe we should have like one afternoon that we have like a small group planning date". As a result, I planned the next PD session to be centered on interviews about their small group practices. During the interviews, I asked questions that encouraged the teachers to reply with their respective policies, thoughts, and practices. Anne described the impact of the small group planning session during her informal check-in saying:

[The PD] gave me the opportunity to discuss things I would like to improve about my reading instruction in a safe environment. And then gave me the time to actually come up with a plan on how to improve these things like small group instruction...The PD gave

me the opportunity to talk through what I wanted to change, what I wanted the outcomes to be and how I could do that. Once I was able to put it in words and have support to bounce ideas off of, I was able to work on that change.

She suggested a meeting focused on small group planning and as a group we executed the task. Regarding her own learning, Anne continued to function as a participant without taking a lead role.

Continued accountability. Both teachers talked about how the PD had helped hold them accountable and as the PD ended, they both resisted stopping the PD. Elizabeth said: “I’m not ready to be done, I didn’t know this was going to be the last one. I would like to meet one more time and have some closure, and then continue informally” (PD session 9). Anne agreed that the PD had been helpful for her saying: “I like the accountability piece and I like meeting together. Maybe not as often since you are trying to get your stuff done” (Anne, PD session 10). They both agreed going forward to Elizabeth’s plan:

I think maybe once a month? Like a, because, I mean we are going to see each other more than once a month, but maybe just have the once a month Be structured and simply focus on this and then the rest of the time is like, because when we meet as friends we inevitably talk about school. You know. but The accountability with meeting once a month, I think would be good. And then it gives us some friendship time too (PD session 10)

Transformations and near transformations. This section outlines the significant changes teachers experienced as a result of their participation in the literacy PD. It also addresses the findings for the two sub-questions for the study:

- a. How does literacy PD designed to support whole(hearted) teacher development affect a teacher's literacy instructional practices?
- b. How does literacy PD designed to support whole(hearted) teacher development affect a teacher's mental complexity?

By answering these two sub-questions, this section also answers the implied question of can literacy PD designed to support whole(hearted) teacher development foster whole(hearted) teacher development.

Research sub-question A: Changes in literacy practice. The participants did not write down formal learning goals. However, across the PD sessions the participants talked a lot about things they would like to improve in their instructional and professional practice. The teachers, for example, were asked to describe their ideal literacy block and compare it to what was happening in their classrooms resulting in the teachers establishing goals they wanted to change within their practice. I relied on their talk about areas they want to improve to establish their learning goals. The teacher participants' literacy practices were observed twice, once before the PD and once after the final PD session, using Bean et al.'s (2009) observation protocol. Throughout the PD, I also spent some time inside their classrooms providing supports that they requested. For this analysis, I applied their learning goals as a lens for their pre and post classroom observations, informal-check ins, conversations in the PD sessions, and other classroom visits to determine how they progressed towards their self-selected goals. The results of these observations and the evidence of how the participants' literacy instruction changed and stayed the same are presented below.

Both teachers set one main instructional goal: improving and/or incorporating small group instruction. When asked about what one thing they wanted to commit to, Elizabeth

specifically said “small groups” and Anne concurred with “yeah”. I then asked them if there was anything specific that they wanted to focus on and Elizabeth said, “just having them and not using the basal as a crutch maybe”, however Anne did not reply making her commitment less firm and less specific. By the end of the PD, both teachers made some changes to their practice. Elizabeth made changes in all her learning goals. Anne made changes in all but one of her learning goals.

Anne. Anne’s classroom instruction was marked by her print rich environment and no-nonsense behavior management style that stayed the same across the observations. Anne was very reluctant to establish her learning goals formally. She would take time and talk about things she wanted to improve when asked directly. She established how she wanted to focus on small groups by moving away from her basal, and improving her time management. She also shared her belief that she had inadequate vocabulary instruction. Later when pressed and supported by the facilitator Anne also added improving her instruction within her small groups as an informal learning goal. Anne exhibited changes in her practice directly related to all but one of her learning goals, improving vocabulary instruction.

I entered Anne’s classroom for the initial observation and noticed immediately a good-sized collection of books available for the students. On the far side of the classroom there were four or five bookcases full of bins with a wide variety of books arranged by authors such as Mo Willems, Laura Nameroff, Dr. Seuss, Kevin Henkes, and Eric Carl; genres such as chapter books or nonfiction books about Tennessee, animals, or people; and favorite characters like Junie B Jones, Franklin, Clifford, Pete the Cat, and Splat the Cat to name a few. The bookcases were no taller than her students and placed conveniently adjacent to the student’s workspace and were centered on a rug and student sized table. There were also two student sized couches in the

classroom that were used for independent station work such as read-to-self. The students were invited to access the classroom library during their literacy block when they were assigned to read-to-self. The students also had bins of books, selected by their teacher on their reading level at their tables. I did not notice any displays of reading or writing strategies in the classroom. There was also a writing station stocked with paper, pens, prompts, and various rotating supports such as card-making supplies when appropriate. In the back of the room was a kidney table where the teacher ran her small group instruction and a small round table where the teaching assistant also met with some students including a tier 2 RTI group. During small group time the students worked in pairs at a variety of stations including a writing station where on that particular day they were drawing a picture of and describing their classroom, read-to-self where they could self-select texts to read from the classroom library, computers where students use literacy websites to practice generic literacy skills, word work where they played games that had them reading sight words to their partners, and write the room where students used alphabetical order to help them hunt for posted words. On the wall outside the classroom, was a bulletin board with black background that read “We are a rainbow of possibilities!” in bright script. At the bottom of the board there were crayon clips with each student’s name on one and an example of their work from that week.

It was apparent that Anne held high expectations for her students’ behavior. There were specific times when they should be quiet such as when an adult is in the classroom or times when they could talk quietly amongst themselves such as during morning work or when working with a partner at a literacy station. Anne used a no-nonsense approach and tone to student behavior. During the morning work time, for example, a student interrupted Anne and her teaching assistant’s conversation about the day saying, “Excuse me?” Anne replied to the student, “Just

because you say excuse me does not mean you can speak. Now, what do you need?” The student then asked, “Can I do the back of the Social Studies reader [her morning work]?” And Anne replied, “Sure, if you have read the inside.” Anne used directive feedback to correct student behavior and maintain a safe, orderly classroom environment.

When I came back after the PD to do the follow up observation, Anne’s classroom felt much the same. She still had ample books available to students in easily accessible bins and shelves. The students’ tables were stocked with new-to-them appropriately leveled books. The classroom was organized much the same, and the types of literacy stations were the same; the content, however, had changed. Now students were drawing pictures and writing about how to build a snow man with scaffolded supports such as given transition words. The students’ work outside had also been freshened up. She continued to use her no-nonsense behavior management style with her first graders. Overall the classroom environment was marked with the same feel: clean, safe, accessible, supportive, literacy focused, and engaging for students.

Across the PD, Anne set some learning goals and made some changes to her literacy instructional practices. Anne did not explicitly commit to how she wanted to improve her small groups. However, early on Anne did share that she did not want to be as reliant on her basal as the only text she used for reading instruction. She felt like it was not her most sound instructional tool, “I want to get away from using the basal too. Because I don’t think that it is the best way to teach my kids reading.... like our stories are terrible” (PD session 1). She felt like getting away from the basal would “make [her] happier” as a teacher. Anne, however, wanted to continue “to use [the] basal as [a] guide. Like that is kind of how I am trying to stick with the skills”. Anne wanted to use outside texts as her instructional materials but keep using the basal’s organization as a guide for what skills to teach. As the PD sessions progressed, Anne reported that she was

relying on texts outside of her basal and that she, however, needed more support for her comprehension instruction. She said: “I typically will find my text and see what the text suggests to work on and we work on that. I'd like a better progression for some like comprehension skills”. Here again she was moving away from relying so much on the texts used in the basal for all of her students, and she was looking for an external support for her comprehension instruction.

Anne also wanted to address her time management skills which included both how she structured her class time and how she planned and prepared for class time. Anne initially defined her desire to improve her time management as a need to restructure her schedule, “I have been wanting to restructure, because I think one of my major weaknesses is time management...time is the hardest part, is it's like time for math before I even blink my eyes sometimes”. In particular she wanted to be able to meet with every literacy small group, every day: “I'd like to meet with them every day... Because I feel like that's when my best instruction happens. But we don't usually do groups and centers on Friday, so we are looking at 4 days a week” (PD session 6). She defined her need to improve her time management as needing to improve how she prepared for her class time:

... it's how I'm managing my time, like if I did the preplanning that we need to do so that we can do the next step or do I have all my stuff together, and that has been a struggle for me, because I will take stuff home but I don't necessarily get to it because there's lots of stuff going on on the weekends and I'm just too tired sometimes (PD session 5)

Anne recognized that she needed to be well prepared to be most successful in her instruction and that her life outside of school at times got in the way.

Anne made some changes in her practice that reflected the learning goals she discussed. During her initial observation, the majority of her instruction was centered on a whole group reading from the basal and her providing individualized feedback as she circulated around the classroom. On that particular day, her students were partner reading a *Curious George* story. During the partner read time, she circulated around the room and listened, occasionally offering support to students who are struggling. She told one student who did not know a word on the page, “Stretch it out and say the sounds.” And the student stretched, “/j/ /o/ /b/”. Anne then instructed, “Then push it all together.” And the student followed up with: “/j/ /o/ /b/. Job”. She offered an affirming nod then headed to the next team. This time when the student got stuck Anne reminded her, “That’s a popcorn word, you are just going to have to know it! It’s ‘find’!” Her feedback continued to be focused on decoding for all her students, yet varied in the level of support she provided. Her small group time was used to have students make a restricted choice between a few books on their reading level as indicated by the student’s STAR Early Literacy Assessment they recently completed. During her follow up observation, however, the bulk of her instruction was during small group reading time centered on leveled texts selected based on students’ STAR Reading Assessment’s Zone of Proximal Development scores. During the small groups, she offered differentiated feedback to support students in both their decoding and comprehension. For example, she asked one student, “Does that make sense, that bear was hibernating again?” The student replied, “no” and she followed up by prompting, “Then let’s try that again. Try to stretch it out” providing the student with both a cuing system to rely on and a strategy to help them decode. She did not use whole group instruction using the same text for the whole class during her follow-up classroom observation indicating that she had successfully moved away from her basal as the sole text for her reading instruction. In addition, her small

group instruction was based on leveled texts to match more precisely her students' instructional needs. Anne concurred that she had made progress towards better meeting her students' needs when she said in her informal check-in: "I feel like my students are getting more focused reading instruction that is more tailored to their needs".

Finally, Anne mentioned that she needed help with vocabulary instruction, but she did not offer much of an entry point in how she wanted to improve it. She claimed: "I stink at teaching vocabulary, I mean I don't even have a clue at how to get better at that" (PD session 5). During one of the PD sessions, Elizabeth suggested Anne look into Reading A-Z's vocabulary program that would require a subscription fee from Anne, however Anne never took Elizabeth's advice and in the last PD session she reiterated: "I still feel like I don't have a very good handle on teaching vocabulary" (PD session 10).

Elizabeth. Elizabeth's classroom environment was clean and orderly with numerous books available to students. She maintained positive expectations and positive interactions with her students. Her overarching goal was to move from whole group to small group instruction. Her informal goals were to ditch the basal, make her instruction more student centered-based on their interests, and incorporate more social studies into her instruction. By the end of the PD, Elizabeth was using differentiated, non-basal texts for her small group instruction, teaching with a variety of small and whole group settings, some whole class novels which were still more authentic texts for Elizabeth. She had also pulled some social studies content books into her small groups and used as read alouds in her class.

When I entered Elizabeth's classroom for her initial observation I was immediately struck by the classroom's organization and cleanliness. Her classroom was equipped with student tables large enough for 3-5 students per table. The desks and chairs were clear of any clutter. There

were a set of cubbies along the back wall with only a social studies textbook located inside them. In the back corner of the classroom were two tall book shelves filled with trade books. They did not appear to be organized using any scheme; however, the books appeared orderly all standing in rows. As her students entered the classroom they quickly took their seats and were expected to follow the directions posted on the board: “place your homework on your table, place all of your other materials under your chair, and read your AR book”. Along the wall I noticed a set of posters that tout growth mindset quotes such as Thomas Edison’s, “I haven’t failed, I’ve just found 10,000 ways that didn’t work” and Albert Einstein’s, “It’s not that I’m so smart; it’s just that I stay with it longer”. As the students began to settle into the classroom, Elizabeth went over her instructions for her literacy work stations:

Just like yesterday we are going to do literacy workstations. It’s a little different. We are only doing 3 today instead of 4 since we visited the library. Who can tell me, who remembers what literacy has to do with? When we think literacy what should we think?
(Elizabeth initial Classroom Observation, September 12, 2017)

She employed the collective “we”, symbolizing the community-feel her classroom embraced.

When I came back to complete her follow up observation, her classroom environment also remained much the same: organized, clean, accessible, and positive. The classroom was still neat and tidy, students only had out what they needed for each task. The cubbies and bookshelves still boasted only the necessities: textbooks and trade books and no clutter. I noticed that the students did not access the books in her classroom library once in either observation. She had posted a letter to her 5th grade students that symbolized her positive expectations and interactions she had with her students. It read:

Dear 5th grade students:

I believe in you. I am here for you. You are cared for. You are important. We will grow together. We will succeed!

Love, Mrs. Elizabeth

Elizabeth prided herself on her positive relationship with and high expectations of her students as personified in her letter. Her classroom environment and positive student interactions remained the same across the PD.

Elizabeth set some goals and made progress towards those goals during the PD. Elizabeth explicitly wanted to focus on small group instruction. Early on she said:

I do want my class to move from whole group to small group instruction, I just know small group instruction is just better for them. And I'm not, I mean I am not getting to it at all. That is something I can change and I want to. (PD session 5)

She wanted to deliver most her instruction through small groups. She also indicated she wanted to teach using more differentiation and to move away from being so reliant on her basal text:

I wish I could do my little literacy workstations better, I don't know, make it more differentiated? I wish I could throw the basal out, I'm like...way too dependent on that. I cannot let it go. And I need to. I need to throw it out the window. (PD session 1)

She backed up her desire to better differentiate her instruction by clarifying how she wanted to have her instructional materials based on her students' interests. She put it:

What's important to me is that it is student centered, and not what I want to talk about.

And I think that is good. And it's based on what the students are interested in, because if they are not interested in it, then it is not going to get them interested in reading. It is just one size fits all. And that doesn't exist. (PD session 5)

Elizabeth not only wanted to deliver most her instruction through small groups, but she also wanted to be sure she was using differentiated materials that were interesting and relevant to her students to aid in their motivation to read.

Elizabeth shifted her instruction to address her desired changes. During her initial classroom observation, Elizabeth employed the same basal text for all her students' small group instruction paired with differentiated scaffolding for each of her reading groups. The instructional text chronicled the history of sports and the focus of the lesson was writing down the sequence of events that occurred in the text. The students' responses across all small groups were short, often one word or short sentences. During her follow up classroom observation, most of Elizabeth's instruction was done in the small group setting. In two of the three small groups that met, they used two paired texts from Readworks.org about the branches of government and worked on skimming and scanning the text to answer text dependent questions. In her third group of the day she used a book from ReadingA-Z.org about American football and worked on asking and answering questions about a text. She later confided in me that the text was more suited to the groups reading level and academic interests. From her initial observation to her final observation, Elizabeth began using texts beyond those provided by her basal and was incorporating texts more appropriately matched for students reading abilities and interests. She affirmed these changes in her informal check-in: "I am more comfortable with small groups. Before I felt horrible not getting to every group every day, but now I know that it doesn't have to be that way."

Both Anne and Elizabeth's classroom environment and interactions with students remained unchanged, however, that was to be expected considering neither of them focused on changing their classroom environment nor their student interactions as a part of the PD. Both

teachers wanted to improve their small group time. Anne desired to and successfully shifted her instructional focus to small group instruction where she was better able to use individually leveled texts and individualized supports for her students. Anne also wanted to improve her vocabulary instruction, but made no documented changes to that. Elizabeth desired to and successfully shifted her instructional materials from using the basal text for all her students, to selecting texts with her students' reading level, interests, and instructional needs in mind.

Research sub-question B: Mental complexity. The teachers participated in two subject-object interviews, one before the PD and one after the final PD session. These two interviews were designed to assess the teachers' level of mental complexity and whether they were in complete equilibrium indicated by a whole number (1, 2, 3, 4, or 5) or in disequilibrium indicated by fractional representations where the leading number indicates the structure that holds the ultimate organizational power for the individual's experience (X(Y), X/Y, Y/X, Y(X)). The initial interviews showed that Anne was operating from the socialized mindset, a 3, and Elizabeth was in transition from the socialized mindset with evidence of the self-authoring mindset beginning to emerge, a 3(4). The final interviews showed that Anne experienced no changes in her level of mental complexity, however, Elizabeth progressed to the next level of disequilibrium where the two structures are now both operating, however, the old, socialized structure remained the ultimate organizer of her experience, a 3/4.

In the next two sections, I will provide evidence from each participant's pre and post SOI's to illustrate their initial and final level of mental complexity and describe the changes identified in Elizabeth's two interviews.

Anne. During Anne's initial interview, she talked about her roles as a wife, mother, teacher, and church/community member. Throughout this interview, she exclusively relied on

external sources for her identity and consistently organized her experience based on how others perceived her, emphasizing her reliance on interpersonal mutuality or the idea that a person is “made up by” those around them (Kegan, Noam, & Rogers, 1982). How she constructed the ideas of a legacy and selfishness further clarified her exclusive reliance on the socialized mindset.

Early in the interview, Anne talked about trying to decide whether to stay home after her second daughter’s birth or go back to work as a first-grade teacher. She described her decision-making process and emphasized the importance of her husband’s expectations: “I think knowing that my husband would rather me be at home with the girls than working is hard”. Including her husband’s thoughts in her decision-making process eliminates the possibility of an instrumental mindset, 2, and provides strong evidence for at least a socialized mindset because of her concern with the expectations within her marriage relationship. When she decided, ultimately, to go back to work she reported that she knew she made the right decision because external evidence such as daycare working out: “when I came back and everything worked out with our daycare situation [it] made me feel like that was ok. I’m going in the right direction”; and her excitement towards teaching “even just the fact that I was excited about trying some new things in my classroom made me feel like I was making the right choice” made it clear to her. Relying on external evidence and the expectations of others to make her decision is indicative of a person who is subject to interpersonal mutuality—the socialized mindset’s, 3, structure. In addition, there was no evidence of her evaluating how she made the decision or reflecting on her thinking that would indicate any presence of the self-authoring mind, a 4, eliminating the possibility of the presence of a secondary structure and placing Anne in complete equilibrium.

Anne's construction of a legacy and selfishness provided further solidifying evidence of interpersonal mutuality and the sole presence of the socialized mindset. Anne talked about attending the funeral of someone she knew well and how she was impressed with the legacy that he left in the community. She described the importance of his legacy saying, "and...leaving that, you know, you want to be like that. You want to be someone people say is encouraging or always working" indicating she understood the significance of leaving a legacy was in its illustration of the way others perceive her. Her interpretation of leaving a legacy reveals how she defined herself by those outside of her. Later in the interview, she talked about how her life had changed as she became a parent and how she struggled with selfishness. She described her struggle with selfishness comparing her life before marriage with the change of marriage and then parenthood:

It is hard to deal with...I mean, you know, there were days where I just like only worried about yourself. And now you have, first you have your husband you have to worry about. And you have your kids you have to worry about and you can't be selfish. And sometimes you want to be selfish.

She constructs selfishness as when she puts herself before others—indicating she believes she is responsible for others' feelings. Believing that she is responsible for other people's feelings illustrates the significant role others' relationships and expectations of her plays in organizing her experience and solidifies her equilibrium in the socialized mindset, 3.

Throughout the initial interview, there was no evidence of the presence of another structure indicating that Anne was in complete equilibrium at the beginning of this study. The presence of interpersonal mutuality implicated the socialized mindset's presence. The socialized mindset structure means that Anne interacts with and understands her experiences according to

the ways that others define and label her. She also holds a strong sense of responsibility for other's feelings and needs a clear sense of what others expect of her to help her navigate her decisions. In Anne's follow up interview, how she constructs her instructional successes, her struggle with snow days, and her identity as a parent revealed no changes in her mental complexity.

She first talked about feeling successful in her classroom this year. She described how seeing her students be successful made her feel successful revealing her reliance on other's influence on her sense of self. She put it, "So when you get to see hey, they are picking this up and they know they are picking it up and they are feeling successful. I think when they feel successful, you feel successful. Well, at least I do". She experienced success when she believed her students were feeling successful—defining her experience of success by gaining her sense of self from others. In addition, she did not have any reflective perspective, an indicator of the self-authoring structure, on why she felt successful when pressed:

Cassie: How do you define success...that way?

Anne: I guess part of it is just the grade level I teach. You teach them to read in first grade. So, if you teach them to read, then they have a successful first grade year.

Cassie: Is that something that, like...I guess where does that come from? Is that from, how do you know that is what defines success in first grade?

Anne: I guess experience and then like what is expected...I was just trying to think, where does that come from? Um, I don't, just so much of what we focus on is reading and getting them that foundation. So when they seem to have that foundation, then they are going to do better as they go on up in the grades. So, maybe that is where that comes from.

Her explanation relies completely on external data: she defines success in first grade based on the expectations for the grade level, an external source. She does not present any personal interpretations of what she values for first grade instruction, or her personal held beliefs which is attributed to the self-authoring structure. Her definition of success, therefore, illuminates interpersonal mutuality and the exclusive presence of the socialized mindset.

Anne's construction of feeling torn over having snow days as a teacher also indicated her solid socialized mindset structure. She described why she is torn over having snow days by saying that others expect me to want snow days: "I feel kind of guilty because I should want snow days to be home with the girls. But then they drive me crazy". Then she introduced someone else's perspective that influenced her thinking, however, she was unable to hold both her thoughts and the other's perspective at the same time. She shares her "new perspective" saying:

I have a totally different perspective on snow days now that my niece has started school.

And I have seen how hard it is for families when their parents are working and they don't have snow days. They have to go to work. Like figuring that out, like my sister lost some of her vacation time last year over snow days and flu days. And so that gave me a different perspective about it.

She uses her sister's experience with snow days as further reason why she does not like them, but she does not employ the self-authoring structure's trademark of her own values to compare or contrast with the opinions with others. She also is torn because she doesn't want to upset others with her feelings, illustrated when she said, "I don't want to be like 'Well they're not thinking about the kids' to people who are all excited about it." Anne's reliance on other's expectations of her to form her beliefs, her incorporation of other's perspectives without integrating her own

thoughts or values, and her concern about upsetting others with her thoughts are all indicative of her full reliance on the socialized mindset structure.

When Anne talked about her identity as a parent she continued to use external sources to define herself. She first talked about the joys of having friends who love her children and she talks about how, “when [my friends] love [my kids] that is an extension [of] loving you.” She believed that by her friends being kind and showing love to her children, they indicated their love for and friendship with her. The focus here is completely on what occurred between people, indicative of interpersonal mutuality and the socialized mindset. She placed great emphasis on the interpersonal mutuality of friends who love her children saying, “I guess it means everything to some extent ... It’s just a big part of who you are when you become a mom.” She defined herself as a mom and looked for acceptance of that through the actions of her friends towards her children. All her methods for defining herself relied on external sources for information.

Anne did not experience any changes to her mental complexity across the literacy PD designed to support whole(hearted) teacher development. In both interviews, she presented a socialized mindset in complete equilibrium. In contrast, Elizabeth experienced growth from one sub-phase to the next sub-phase as evidenced by her initial and final Subject-Object Interviews.

Elizabeth. During Elizabeth’s initial interview she spoke about her roles as a teacher, daughter, and wife; her relationships with others in those roles, and times of transition such as job changes and graduations. Her conversation revealed evidence of her emerging disequilibrium between two structures: the strongly established socialized mindset with hints of the self-authoring mindset emerging, 3(4). Her struggle with the idea of interpersonal mutuality—how she is impacted by her peers—and her emerging internal authority across her initial interview typify her cognitive development level as a 3(4).

When Elizabeth reflected on one of her graduations, she revealed her main organizing structure as the socialized mindset. During her reflection, she placed great emphasis on making her parents proud:

My parents paid a whole lot of money for it. That was one big thing. Um, I never had to take out any student loans. And it meant a lot to me to make my family proud. Um, and I think, I don't know, that might have even been more important to me than actually finishing school. Like making my parents proud.

She emphasized how important it was to her to make her family proud by graduating especially because of their financial support. By indicating the significance of making her family proud on her motivation to finish school she exposed how she is subject to interpersonal mutuality—the idea that people around you deeply impact yourself—and provided evidence of the socialized mindset as her lead organizing structure. Her hesitation to placing pleasing her parents as the most important aspect of her graduation, saying pleasing her parents “*might have been* more important to [her] than finishing school [emphasis added]”, suggesting a strong socialized structure but also left room for a potential other structure.

When Elizabeth discussed changing from 3rd to 5th grade at the beginning of the school year, she disclosed her struggle to make the decision and began to reveal an emerging second structure—the self-authoring mindset. She depicted her struggle as being between interpersonal mutuality and her own internal authority by saying, “I was sad to leave one of my colleagues behind because I felt like I was leaving her in a bad situation. But, that one, I really had to worry about my own mental health”. As she talked about leaving her colleague behind in a bad situation she showed how she understands that she is responsible for her friend's feelings and situation—interpersonal mutuality. However, when she also pointed to having to do what was

best for her own mental health she acknowledged a new responsibility to herself and the emergence of the self-authoring structure. Deeper into the conversation she admitted that the only reason she really struggled with this decision was because of her colleague's feelings further indicating a very strong socialized structure at work. She highlighted her concerns for her colleague's stress as the reason she struggled saying:

Because I know how stressed she is going to be. So that was tough, that was the tough part of it; because if it hadn't been for her, I would have made the decision like that!

[snaps fingers] It would have, there would have been nothing to think about.

Again, her allegiance and concern for her colleague run interference with her new responsibility to herself indicating the presence of both structures.

In this next passage, her struggle with the two structures exposed the socialized mind as the ruling structure and the self-authoring mind as an emerging structure. She explained her decision-making experience saying:

It was hard for me to separate my friendship with her and what I needed to do for myself professionally...It was hard, because you really can't separate it. You know, it is not, you can't, people always say don't personalize things, but, you know, we are all people. If someone hurts your feelings you can't just put it in a box and say "Ok! I'm just not going to feel that right now." You know? So, even though I had to say, "Ok, if I take my colleague/friend out of the equation and I know this decision is right for me." Even when I make that decision, she is not going to be out of the equation. Like, that may have an impact on our friendship.

In this passage, Elizabeth revealed her belief that her decision will greatly impact her colleague and that there is nothing she can do about it—indicating she is still subject to interpersonal

mutuality. Her ability, however, to acknowledge her own inability to *not* feel hurt feelings caused by someone else is characteristic of a classic 3(4) construction of experience where a person articulates:

I know there is a different way to be and I can say there is a different way to be. I wish I didn't feel that way, but I cannot come up with any way in my head that I can see myself actually feeling any different. (Nancy Popp, personal communication, February 26, 2018)

In her quote, Elizabeth acknowledges that some people are able to separate their friendships and their professional life when she says, "It was hard for me to separate my friendship with her and what I needed to do for myself professionally." But then she also pointed out that she was not able to feel differently when she said, "If someone hurts your feelings you can't just put it in a box and say 'Ok! I'm just not going to feel that right now'". She further illustrated her inability to feel any different when she said, "Even when I make that decision, she is not going to be out of the equation". Elizabeth's developmental location is therefore established as a 3(4).

Elizabeth continued to exhibit the classic 3(4) construction of knowing a different way of experience exists but being unable to have that experience when she described recently taking a job with an afterschool program. She shared that after she accepted the job and started work, she learned that the program conflicted with her beliefs: "I can't be a part of this. So I tried to quit. Because I did not believe in the program, what it turned out to be," which was further evidence of her internal authority. She had confessed she wanted to quit the job, however, she still struggled with interpersonal mutuality. She depicted her struggle saying:

And I tried to quit, and that did not work out because I have a hard time separating my friendships, my personal from my job. I couldn't quit because my two friends are the

Admins for it and they really needed me to stay. So, here I am. So, that was a change that I wanted to happen but didn't.

Her struggle with separating her friendships from her job, again, exposed her understanding that separation is possible—evidence of her knowledge that another way to organize her experience exists; however, she was still unable to successfully separate her friendships from her work in this situation clarifying the socialized structure remains in power and proving further her disequilibrium with the self-authoring structure was just emerging, 3(4).

Elizabeth's initial interview revealed she was subject to the organizing power of interpersonal mutuality *and* exposed her competing awareness that there is an alternative way to organize her experiences that she has not yet been able to master. Her disequilibrium between the two structures: the socialized mindset and the self-authoring mindset, was just beginning to emerge revealing her developmental level as a 3(4). Elizabeth's follow up interview revealed a one sub-phase change in her developmental level to a 3/4 where the two structures are both operating and mutually influencing each other.

Across Elizabeth's final interview, she highlighted her roles and relationships as a teacher and a daughter. In her conversation, she revealed a new ability to take a critical perspective on herself: her actions and motivations; and a new ability to care for herself or do what she believed in with permission from others that both epitomize a 3/4 construction of experience. A person at the developmental level of 3/4 is still ruled by the socialized mindset's interpersonal mutuality, however, they also have a more solid allegiance to their emerging internal identity and ideology (Lahey et al. 1988).

Elizabeth illustrated her sense of responsibility for others' experiences and her developing ability to evaluate herself when she discussed a time when her students' ability

surprised her. She described the most revealing part of the process as the possibility that she had been holding her students back. She described the experience saying, “It kind of shocked me that why haven’t I done this earlier? Have I been babying them? I don’t know.” Her shock and critical questioning of her practice indicate a new ability to examine her own behaviors which is significantly different than her previous ability to only know that an alternative way to be exists but not be able to see herself doing anything differently. Here she revealed that she can question why she is doing things, indicating development in her mental complexity. She further described her interpretation of her students’ abilities saying:

If they had not been successful, I would have thought: “Ok, I was right this is too hard. I need to step back a little bit. Go back and pull a different passage.” It wouldn’t have been their fault, it would have been me.

She held herself completely responsible for her students’ experiences, very strong evidence for her reliance on interpersonal mutuality. However, she also explained that if the students had not been successful, she would not have taken it personally. She said, “I wouldn’t have been devastated. I wouldn’t have been like, I wouldn’t have felt defeated. I just would have thought I need to try something different and that is ok.” Now she separated herself from her instructional actions illustrating a nuanced construction from her first interview. In her initial interview, she was very likely to place blame on herself for impacting those around her with her actions. Now, in her follow up interview, she still held herself responsible but the news was not so devastating to her, she was more able to think about how she could improve upon the situation, further evidence of a new ability to evaluate herself and her actions that suggests a more solidified self-authoring structure is in place.

When Elizabeth reflected on changing grade levels at the beginning of the school year she disclosed how she saw her actions as self-indulgent, however, she also took a critical perspective on herself solidifying her new cognitive development level as 3/4. She revealed the self-authoring structure's power in organizing her experience by uncovering a new sense of responsibility to herself and a new ability to do things for herself when she described the best part of making the change as: "...taking myself out of a toxic situation and putting myself, putting myself first, making sure I was worried about me and not worried about hurting my friends' feelings from moving grades. Just putting my happiness first, I guess." She saw herself as being responsible for herself and her needs which contrasted her previous sense of responsibility to others' feelings and experiences in her initial interview. However, she was not completely comfortable with her new thinking and revealed her disequilibrium saying:

It was very uncomfortable. Um, I don't, I don't know. I feel like it's a little self-indulgent to put yourself and your feelings first. So, it was uncomfortable, because I am always worried about: is this the right thing to do? Am I being selfish?

She illustrated the tension and struggle of disequilibrium saying she was "uncomfortable". She also felt self-indulgent because she was putting herself before others—a socialized construction of self-indulgence—indicating the continued dominance of the socialized mindset in organizing her experience. She followed her struggle with her disequilibrium with a revelation in her ability to think critically about herself: "Um, but it's turned out to be a really good thing. And I think I was a little too worried about what my co-workers thought. And it's been good for my mental health". She pointed out that she was too worried about what others think, showing how she is now able to separate her colleagues' experiences from her own. And then she justifies her actions as good for herself—evidence of the self-authoring structure's presence. She presents this same

kind of revelation when she talked about the hardest part of making the change for her was: “Not knowing if it was the right decision”—again flitting back to the socialized understanding that the self does not know things, implying instead that others know things. Her inconsistency in her interpretation of her experience indicates her struggle with being subject to and being able to hold object interpersonal mutuality—a socialized characteristic. By presenting her conflicting perspectives she shows how she can hold conflicting viewpoints at the same time—another classic characteristic of the 3/4 structure.

Elizabeth’s ability to see a change in her decision-making process provided strong evidence of the more fully formed self-authoring structure in her new cognitive development level, 3/4. She described how she perceived her decision-making process had changed when she talked about needing to take some time off from work because of an injury she had. She decided to take a day off from work to get some help with her injury: “Today I took a day off because I had to go to the Chiropractor. And it was for me. I probably could have gone to school today, but I was in pain”. Here she relied on her new, more solidly formed, self-authoring structure to aid in her decision-making process. When she talked about making the decision, she explained how she perceived that she had changed since the fall saying, “At the beginning of the year, I would have gone to school anyway in major pain because I was worried about what [my new team] thought”. Elizabeth can see how she now thinks differently than she would have just a few short months ago. She would not be able to detect the difference in her experience without her new reliance on the self-authoring mindset that allows her to take a critical perspective on her own thinking and experiences. In addition, her previous reasoning was based solely on her teammates’ thoughts about her because she was subject to interpersonal mutuality almost exclusively where as her thinking had changed now to include her internal sense of rightness: “I did it for me”.

Elizabeth's construction of permission from others' role in her decision-making process further solidifies her cognitive development level as a 3/4. She talked about her experience making the decision to take time off from work and illustrated her construction of permission when she said:

At this point, I feel like I put myself first. And part of it is because I know that they are ok without me and they are not going to think I'm a horrible teacher for missing a day. No, that is all of it. Yeah. I mean that's the only reason I took the day off is because I knew they were, would not be upset. They would be fine. They would not think less of me because of it.

Elizabeth was able to do the right thing for herself, take some time off *only* because her colleagues gave her permission that it was ok for her to have the time off. She wants to do the right thing for herself, a self-authoring practice; however, because she still needs to know that it is acceptable to her colleagues, she is still ruled by the socialized idea of interpersonal mutuality. Interestingly, if a person were in complete equilibrium with the socialized mindset they would not be thinking about doing the right thing for themselves the way Elizabeth has presented it. Instead they would be doing the right thing by the others around them.

My final illustration of Elizabeth's development along the trajectory of mental complexity comes from her description her experience of her beliefs conflicting with her employer's expectations. She talked about having anxiety over end of the year testing and described her experience saying:

I don't know. I think it's a battle between what I know is best and doing what the people who hired me want from me. And it's like, I think that's where the anxiousness comes from. The like battle between those two things.

She clearly explicates her 3/4 disequilibrium, saying her internal conflict comes from the expectations of others—interpersonal mutuality’s hold on her—and her own beliefs—her emerging autonomy. The self-authoring structure is much more formed now, however is still subject to her socialized interpretations. Her struggle is classically 3/4 because a person in transition from the socialized mindset to the self-authoring mindset at a 3/4 sub-phase often constructs their conflict with others saying, “we don’t agree and it is really uncomfortable, and it creates anxiety. But I can’t not think what I think and I also can’t not worry about what you think about me” (Nancy Popp, personal communication, February 26, 2018). She cannot let go of the socialized structure and she cannot un-feel the self-authoring structure resulting in conflict that Popp described as “a very hard time” (Nancy Popp, personal communication, February 26, 2018).

Elizabeth’s new developmental level, 3/4, was illustrated by her new abilities to think critically about her own thoughts and behaviors in conjunction with her looming allegiance to other people’s role in her experience. She showed growth by complete sub-phase in a matter of 5 months—making her change much more rapidly than expected according Popp & Portnow’s (2001) typical unaided trajectory. Typically, it takes around a year for a person to make a transition from one sub-phase to the next sub-phase (Popp & Portnow, 2001). Her transformation, however, was likely due to a developmental readiness for transformation conceivably stemming from her life circumstances such as the grade-level change, conflict with her colleague, and need for a better work environment that presented her with a complex problem. Elizabeth’s development was a significant contrast with Anne’s continued equilibrium.

Elizabeth’s growth in her mental complexity, new understandings and use of shame and vulnerability, and changes to her professional practice indicate that she experienced

whole(hearted) teacher development across the literacy PD. Anne's equilibrium in her mental complexity, new understandings of shame and vulnerability with limited application of her new understandings, and changes to her professional practice indicate that though she made changes to her instruction, she did not experience whole(hearted) teacher development.

Chapter Summary

In this chapter, I presented my analysis of literacy professional development designed to support whole(hearted) teacher development. I employed three research questions designed to help me better understand the experience of whole(hearted) teacher development: 1) What is a teacher's experience of literacy PD designed to support whole(hearted) teacher development? 1A) How does literacy PD designed to support whole(hearted) teacher development affect a teacher's literacy instructional practices? 1B) How does literacy PD designed to support whole(hearted) teacher development affect a teacher's mental complexity? And I described findings as I determined them from the data in this study.

To understand a teacher's experience and answer the main research question, I described the literacy PD and the facilitator's roles, explained how the participants' interactions were *vulnerable* and *empathetic*, outlined *the learning process* specific to this study, and explored the resulting *transformations*. To understand the impact of the PD on the participants' literacy instruction, I illustrated changes in the participants' literacy instructional practices that they believed were supported by the literacy PD. And finally, to understand how the literacy PD impacted the teachers' mental complexity, I explained how the teachers' mental complexity either changed or did not change across the literacy PD. In the next chapter, I will reflect on the findings and their significance to the field using relevant literature.

Chapter Five: Reflections

In this study, I brought together four theories to propose a new approach for teachers' professional development called whole(hearted) teacher development. Whole(hearted) teacher development is a type of personal development that supports teachers' growth in how they came to know things, how they understand their experiences, and how they understand and employ shame and vulnerability. Whole(hearted) teacher development also comes with a set of parameters that outline the environment and support necessary to foster this type of growth. Through a comparative multi-case study, I obtained an up-close look at two teachers' experiences with whole(hearted) teacher development to better understand the relationships among the four foundational theories and sought to answer the following research questions:

1. What is a teacher's experience of literacy PD designed to support whole(hearted) teacher development?
 - a. How does literacy PD designed to support whole(hearted) teacher development affect a teacher's literacy instructional practices?
 - b. How does literacy PD designed to support whole(hearted) teacher development affect a teacher's mental complexity?

I wanted to use teachers' experience inside the PD to better understand how these four theories with a few documented connections operated together. Transcripts, artifacts, pre and post classroom observations, subject-object interviews, and a follow up informal check-in were collected and analyzed using qualitative data analysis software to understand the story of Anne's and Elizabeth's experiences inside literacy PD designed to support whole(hearted) teacher development.

I found patterns in teachers' experience of whole(hearted) teacher development through their interactions, the content of the PD, and the results of the PD. In this chapter I have spent some time reflecting on the relationships among the theories as uncovered by this study. I will begin by summarizing my interpretation of my findings, and follow with my understanding of the implications of this study. I will conclude with my suggestions for future research.

Summary and Interpretation of Findings

Across the literacy PD designed to support whole(hearted) teacher development, Anne engaged in more empathetic actions than vulnerable actions; expressed that the planned activities and provided support had the strongest impact on her instructional changes; found that learning about shame and vulnerability through videos and readings not only allowed her to see shame and vulnerability in others, but also spurred her to try and be more open to others; set learning goals and achieved most of them; and maintained equilibrium in her level of mental complexity. All of Anne's results indicated that though she made instructional changes to her practice, she did not experience whole(hearted) teacher development as defined by this study. Elizabeth, on the other hand, engaged in more vulnerable than empathetic actions; expressed that her self-instigated observation of her colleague and facilitator support helped her change her instruction; found that sharing her experiences helped her to grow cognitively; set and achieved all her learning goals; and transitioned from one sub phase of mental complexity to the next sub phase. Elizabeth's results indicated that she did experience whole(hearted) teacher development. As evidenced here, both teacher participants accomplished many things across the literacy PD. However, only Elizabeth experienced whole(hearted) teacher development, making examining each teacher's experience through the lenses of each piece of the theoretical framework critical to better understanding the significance of their distinct experiences.

Mental complexity and whole(hearted) teacher development. Examining each teacher's case through the lens of their level of mental complexity reveals a new pattern of how mental complexity, vulnerable and empathetic actions, and changes in their practices are related. The participants' level of mental complexity has the potential to explain each participant's interactions and growth inside the literacy PD. Anne's equilibrium inside the socialized mindset appears to mediate her experience with vulnerable and empathetic actions and limit both her instructional changes and her understanding of the source of her changes. Elizabeth's disequilibrium between the socialized mindset and the self-authoring mindset appears to facilitate her broader experience of vulnerable actions, foster more complex changes to her instruction, and decrease her stress experienced regarding her job.

Anne's mental complexity and vulnerable and empathetic interactions. Inside Anne's experience of the literacy PD, her interactions appear to be mediated by her mental complexity. Across the literacy PD, Anne engaged in vulnerable actions much less frequently than she did empathetic actions. Anne's socialized mindset indicates that her understanding of herself is subject to how others define her; she understands that she is responsible for other's feelings; she relies on external sources for standards, values, and acceptance; and she expresses herself in relation to others or outside ideas but does not yet rely on an internal belief system. Anne's interactions were mediated by her mental complexity in the following ways: critically reflecting on her practice limited by external sources for problems, speaking about shame she experienced but not examining her underlying assumptions around her experiences, asking for specific external supports with a limited construction of the importance of accountability, and engaging in significantly more empathetic actions than vulnerable ones.

According to my findings, Anne critically reflected by identifying problems she saw in her practice and shared times she experienced shame; however, she did not engage in examining any underlying assumptions or lenses she used to interpret her problem or define shame. Anne's discussion of her practice, for example, revealed her desire to grow her students' development, however, she believed having enough time was her biggest challenge. Time is an external source for her problem that she labeled a hindrance to improving her practice. She went on to talk about her struggle with time management citing all the "stuff" that got in the way of doing her work as another obstacle to her success. Her reflection remained on external obstacles to her success. She did not present any thinking about her internal motivations and assumptions that might be contributing to her struggle.

Anne's practice of speaking shame was also limited by her mental complexity. She was able to identify times in her life when she experienced shame such as around parenting and her body image. However, she continued to not be able to take a perspective on why she struggled with shame in these areas. During the third PD session, she said, "like it bothers me but there's really no reason for it to bother me" indicating a lack of understanding of how shame operates inside of her. Instead she often would reflect on relational experiences that led to her feeling shame such as how she felt like there was not enough of her to go around, implying the importance of her need to meet the needs of others. Her understanding of shame is largely influenced by her still being subject to interpersonal mutuality or the understanding that a person is "made up" of those around them (Kegan, Noam, & Rogers, 1982). Anne's ability to critically reflect only on external obstacles to her practice and to share only times she experienced shame without introspective thinking is a function of her mental complexity.

Not only was Anne's critical thinking limited by her mental complexity, but her ability to ask for help and understanding of the importance of accountability appear to also be impacted by her mental complexity. Anne asked for two things to help her improve her literacy instructional practice: a better progression for teaching comprehension skills and a better assessment of her students' developmental reading level. Both requests are for external supports for her teaching practice and indicate her reliance on outside sources for standards to follow, values to hold, and validation of her own practice. When Anne asked for a curriculum guide, she could completely rely on the guide for the sequence of instruction instead of her own professional knowledge of her students' needs and development. Or Anne could take the sequence and apply the ideas when she deemed them appropriate based on her understanding of her students' development. However, during the PD sessions she explained her process for planning student lessons in comprehension saying, "I typically will find my text and see what the text suggests to work on and we work on that" (PD session 6) indicating that she planned to rely on the external support of the guide for how to sequence her instruction. Anne also agreed with Elizabeth that she too needed accountability to support her professional development; however, Anne's construction of why accountability was important lacked the depth of Elizabeth's construction of why accountability was important to this PD. Anne shared that she enjoyed meeting during the PD and enjoyed having accountability when she said, "I like the accountability piece and I like meeting together", however she never shared a critical perspective on how or why accountability was good for her.

As mentioned previously, Anne participated significantly more in empathetic actions than vulnerable actions. Her empathetic actions were well in line with her level of mental complexity that can experience empathy and often take responsibility for other's feelings (Popp & Portnow,

2001). The socialized mind can experience empathy because it is defined in relationship with others. Her willingness to be empathetic is likely related to her reliance on interpersonal mutuality. Her words and actions indicate that she understands her responsibility inside the PD was to help and support Elizabeth and therefore spends a large part of her time during the PD being empathetic towards Elizabeth.

Anne's interactions appear to be largely influenced by her mental complexity. She reflects on her practice and shares times she experienced shame, but is not yet able to take a critical perspective on her reflection by thinking about internal assumptions or lenses she could be using. She still understands herself in relationship with others and is not, yet, able to access her own stand-alone belief system. Anne's vulnerable actions are only slightly different than Elizabeth's vulnerable actions in that Elizabeth takes some perspective on her thinking and experience because of the presence of the self-authoring structure. The difference between these two teachers' experiences indicates that there could be more to be learned about how vulnerability and empathy are constructed by the various levels of mental complexity, especially when thinking about relying on vulnerability to spur on teacher development. Furthermore, there is no literature on how a person's mental complexity influences their construction and experience of vulnerability and empathy.

Anne's instructional changes and mental complexity. Anne set some instructional goals and made changes in her practices to reflect her goals that appear limited by her mental complexity. Anne's instructional goals were to move away from relying on the basal texts as the source of her instructional content. By the end of the PD, Anne had completely transitioned to using leveled books matched to her students' instructional reading level as indicated by the STAR Reading Assessment. She, however, remained reliant on an external guide to dictate the

sequence of her instruction, instead of relying on her professional knowledge and students' individual learning needs to guide instruction. Her reliance on external supports as the source for her instruction is consistent with Smith's (2011) findings of effective teachers with a socialized mindset's practices and is likely related to her mental complexity and how she organizes her experiences. Her socialized mindset means that she desires to be in line with those in authority, and that she herself cannot hold authority or professional knowledge to guide her own actions. Instead she continually looks outside herself to those she respects for what to do likely as a result of her socialized mindset's need to be in alignment with external authority. In her case, she sees others as experts on literacy development and reading comprehension and therefore continues to rely on external sources. She was not able to reflect on or incorporate her internal beliefs into her practice.

Anne's mental complexity also organized her experience and understanding of how she made changes to her practice. Anne attributed her instructional changes to the external practice of outlining her ideal literacy block. By outlining her ideal literacy block and asking herself why she was not running her literacy block that way, she was able to intentionally identify something she wanted to change, make steps towards changing her practice to reflect her ideal literacy block, and align her practice with her ideals. Anne's socialized mindset, with its emphasis on external sources for authority helped her label the practice, outlining her ideal literacy block, instead of an internal process such as questioning her motivations as the source of her changes.

Elizabeth's mental complexity and her interactions. Elizabeth engaged in 72 percent of the documented episodes of vulnerable actions significantly more than Anne did. Elizabeth not only used more vulnerable actions but she also engaged in deeper levels of vulnerable actions. Elizabeth's broader use of vulnerability included: critically reflecting on her practice and her

underlying assumptions; struggling with when and whether to feel shame resulting from an internal battle between the expectations of others and her own expectations; asking specifically for what she knew she needed and was not limited to external guides; and seeking specific instructional input from her colleagues.

Elizabeth engaged in lots of critical reflection about her practice and her professional growth that were influenced by her mental complexity. For Elizabeth, critical reflection meant she examined both the problem and her underlying assumptions that were interfering with the problem. Unlike Anne, Elizabeth's critical reflections were not limited to external sources for her problems. Instead, Elizabeth engaged in critiquing herself, her own role in the issues she examined, and both the underlying assumptions she employed and how they influenced the problems she uncovered. Being able to critique herself is a function of her mental complexity that is in transition between the socialized and the self-authoring mindsets. Because she operates with the self-authoring mindset working along-side and still ruled by the socialized mindset, she understands that her internal self holds some authority and influence over situations, thus allowing her to think about how her thinking and assumptions may be contributing to problems at hand.

Elizabeth's experience with *sharing shame* extended beyond relational sources of shame to include an analysis of her internal thinking and its relationship with shame. Armed with an awareness of her internal self, she reported that she experienced shame during an internal battle between her ideal self and the expectations of others. Elizabeth's ability to see her internal self's role in experiencing shame is also a byproduct of her transitional mental complexity. Because her mental complexity indicates that she has both an allegiance to her relationships and an emerging internal belief system that is also telling her how to define "good enough", she

struggled with whether or not she should feel shame based on others' expectations of her or whether she is good enough based on her own expectations of being good enough. Elizabeth's experience with shame as an internal struggle lies in contrast with Anne's experience of identifying relational sources for her shame.

The way Elizabeth shared her own instructional needs was also influenced by her mental complexity. During her incidences of sharing her instructional needs, she asked for specific help that was not limited to external guides *and* she sought general accountability to help her grow based on her understanding of her internal needs. When Elizabeth asked for specific help she requested lessons on word patterns—an area she noticed her students needed growth in. Looking for lesson ideas is different than seeking a curriculum guide for how to sequence comprehension instruction. In Elizabeth's request for support, she retains some of the autonomy for how to structure her instruction; whereas, Anne's request for a specific curriculum guide leaves the authority in the outside source—the curriculum guide. The difference between these two teachers' understandings of their own needs appears connected to how they construct their experience as teachers as indicated by their mental complexity. Elizabeth also understood that she needed accountability to help her make the changes to her practice she wanted to make. She said if you ask me several times, “then I will want to do it so I won't be embarrassed” (PD session 5) indicating that she was able to use the importance of others' expectations on herself to help her accomplish her goals. Her knowledge of her need for accountability and how she plans to employ accountability to help herself grow are largely influenced by her mental complexity. She knows that what others think of her motivates her to do things, evidence of both her subjectness to interpersonal mutuality and her emerging understanding of her own internal authority. And she also knows she wants to grow and change—further evidence of her emerging internal

authority. Therefore, she plans to use her interpersonal mutuality to help her accomplish her own goals.

In addition to her sharing her own instructional knowledge, Elizabeth uniquely sought specific instructional input from both the facilitator and Anne. Seeking specific input meant she asked a person by name, for their advice or ideas on how they would handle a situation.

Elizabeth's transitional mental complexity also indicated that though she was developing a new sense of self and responsibility to herself and her ideals, she still retained a need for permission from those in authority. For example, during a conversation about her literacy instruction where she was working on a new plan for her instruction, she asked the facilitator:

So how do you think, what do you think, like in my literacy block with this class, should I start with like a read aloud and then break into the small groups and only do like one small group a day with this? (PD session 7)

Her requests for input from the facilitator and Anne appear to be subtle requests for permission to act in accordance with her own ideals.

Elizabeth's interactions are much more nuanced than Anne's. She understands and applies the ideas of shame and vulnerability in a way that allows her freedom to choose from a wider variety of possible solutions than Anne's limited external solutions. Elizabeth sees how she herself could be interfering with problems such as how shame is influencing her behavior. Her ability to critically evaluate herself is a 3/4 construction and therefore would not be accessible to Anne's fully socialized mindset.

Elizabeth's mental complexity and instructional changes. Elizabeth's transitional mental complexity fostered more complex changes to her instruction. Elizabeth established that she wanted to incorporate more small group instruction, which was more differentiated, and less

reliant on the basal. By the end of the professional development she was employing small group instruction as one of her main instructional methods, and the texts students were reading were selected based on both the students reading levels and their interests. In addition, her instructional plans were also based on the students' needs, for example, during her final observation two groups were working on skimming and scanning texts to answer text dependent questions and another group worked on asking and answering questions of a text, a task much more suited to their instructional needs. Elizabeth changed her instruction by allowing her beliefs about the importance of student interest in texts to sink into her desired changes resulting in small group instruction with varied texts according to students' reading abilities and interests, and varied instructional goals based on student needs.

Elizabeth's mental complexity also organized her experience and understanding of how she made changes to her practice. She highlighted the importance of sharing her ideas and thoughts about her experience, as well as, having a sounding board or place where she could receive feedback to use in her practice on her instructional changes. Emphasizing sharing her ideas that she held internally is made possible by the presence of her self-authoring mindset and her emerging internal authority. Emphasizing receiving feedback from others is indicative of her new ability to do what she believes in with permission from others.

Elizabeth's growth in mental complexity and stress. The most interesting contrast between Anne and Elizabeth's experiences of the PD and of whole(hearted) teacher development came at the very conclusion of the study. Alongside her growth in mental complexity, Elizabeth reported she experienced a reduction in her stress level regarding teaching which she attributed, at least in part, to her experience inside the PD. Elizabeth's experience suggests that her new mental complexity is a more appropriate match for the demands of her job. Anne, however, did

not grow in her mental complexity and she did not report any such reduction in her stress level she experienced either towards work or her social life.

Elizabeth's experienced whole(hearted) teacher development according to her growth in mental complexity, her revelations with shame and vulnerability, and her use of vulnerable actions including her ability to speak shame. As a result of her whole(hearted) teacher development, Elizabeth is better able to make complex changes to her instructional practices that are in line with her professional knowledge and beliefs; she better understands how shame interferes with her ability to grow and the necessity of vulnerability for her growth; and, she is better able to be vulnerable by sharing her needs. Elizabeth's whole(hearted) teacher development relieves some stress around her job.

Shame and vulnerability and whole(hearted) teacher development. In this study, Brown's (2006) work on shame and vulnerability was critical for the participants to learn about, understand, and apply to their lives for them to experience whole(hearted) teacher development. The participants specifically needed to know that shame is the belief that "I am not good enough", is a common emotion that many people experience, wreaks havoc on growth and development, and can be overcome through awareness and conversations about shame. The participants also needed to know that vulnerability is hindered by shame, is usually uncomfortable, and is central to a person's ability to grow and develop. Therefore, if the participants wanted to grow they had to figure out how to become vulnerable.

The ideas of shame and vulnerability and their role in learning and development appeared new to both teachers. Both teachers engaged in negotiating these new ideas. As a result of their negotiations, Elizabeth emerged with new thinking patterns that likely contributed to her growth

in mental complexity and Anne developed a new practice of looking for shame and vulnerability in her relationships with others.

In the beginning, Elizabeth thought about vulnerability as openness and agreed that it was critical for learning. She was able to critically reflect on her use of vulnerability finding that she was not always comfortable being vulnerable. She engaged in some rational discourse about the importance of being vulnerable even though it makes her uncomfortable. She realized that her struggle with shame was making it hard for her to be vulnerable when she wanted to be. By the end of the PD, Elizabeth held new thinking patterns that decriminalized failure in her internal experience and allowed her to give herself more grace and understanding. Her growth in how she understood and applied her new understandings of shame and vulnerability was necessary evidence for her wholehearted teacher development.

At the beginning of the PD, Anne felt more comfortable using the term openness than vulnerability due to her negative associations with vulnerability, such as her strong association of weakness and injury with vulnerability. She did share some incidences where she experienced shame around her body image and parenting across the PD. She expressed that she was more comfortable being vulnerable at work than at home. By the last PD session, however, she talked about a current conversation happening among teachers on social media about the importance of multicultural representation in curriculum across the school year. This conversation challenged her current practices causing her to question why she only talked about leaders of color on MLK day or during African American History month. As a result of her experience with this challenging conversation, she expressed her desire to do a unit on culture that incorporates all of the backgrounds of the students in her classroom. At the end of the PD, Anne does not acknowledge any personal changes that she has made, but does admit to a new practice looking

for shame and vulnerability and how it could be impacting others. Therefore, Anne did grow in her understanding and application of shame and vulnerability. And even though Anne's experience incorporates less critical reflection and rational discourse than Elizabeth's experience, her query around culturally relevant literacy instruction could be the disorienting dilemma that may ignite the spark to complete the process of whole(hearted) teacher development.

Both teachers, when presented with Brown's content on shame and vulnerability, developed new understandings of shame and vulnerability and began using their new knowledge to better support their own growth and development. Changes in their use and uptake of shame and vulnerability alone did not necessarily mean the participants experienced changes in their mental complexity. However, learning about the role shame and vulnerability has on our own growth processes appears to support the transformation of a person's mental complexity.

Transformative learning and whole(hearted) teacher development. When planning a literacy PD designed to support whole (hearted) teacher development, transformative learning was the necessary process for teachers to experience growth in their mental complexity—one of the pieces necessary for whole(hearted) teacher development. Transformative learning at minimum consists of three pieces: a disorienting dilemma, critical reflection, and rational discourse (Mezirow, 2009). Both teachers participated in parts of the transformative learning process and their experiences of the pieces of transformative learning appear to be related to their readiness for development and mental complexity.

The first step in the transformative learning process is the disorienting dilemma—an event that causes an individual's thoughts and knowledge to be in conflict (Mezirow, 1997). The disorienting dilemma can result in a kind of confusion where the participant would need to reconcile their knowledge and their thinking. I, therefore, looked for times when the teachers

were questioning their own thinking and experience inside the PD as evidence of a disorienting dilemma, and both teachers presented evidence of questioning their own thinking and/or experience. Elizabeth, already in process of developing her mental complexity, shared several instances where she asked of herself, “why did I...?”. For example, as indicated in Chapter 4, Elizabeth realized that she was struggling with letting perfectionism shield her from vulnerability and the healthy practice of striving for excellence and asked of herself, “Why did I stress about [something] until the point it made me ill?” This kind of questioning herself appears to function as a disorienting dilemma that puts her practice of stressing in conflict with her desire to strive for excellence and not hide behind perfectionism. Anne also shared a few times that she questioned herself, for example, when she wrote out her ideal literacy block she then wondered “Why can’t I make this happen?” She saw a time where her practice was not in line with her values for good literacy instruction, creating a disorienting dilemma. Both teachers’ disorienting dilemmas sparked their critical reflection which happens to be the next step in transformative learning.

The kind of critical reflection necessary for transformative learning requires thinking about the premise—or underlying assumptions around the thought or idea (Mezirow, 1991; Kreber, 2004; Merriam, 2004; Taylor, 2007) instead of just the content or process around an issue. Elizabeth engaged in more, deeper critical reflection than Anne did. Anne’s critical reflection consisted of reflecting on external sources for or obstacles to problems, what Mezirow (1997) would label the content of the problem. Whereas, Elizabeth’s critical reflection across the PD extended to her underlying assumptions of the problem, what Mezirow (1997) labeled reflection on the premise of the problem *and* critical for transformative learning. As mentioned previously, the extent of each teacher’s ability to critically reflect appears to be mediated by their

mental complexity. Further suggesting an existing relationship between a teacher's experience of transformative learning and their mental complexity.

The last piece in the transformative learning process is rational discourse. Rational discourse is conversation that challenges, defends, explains, assesses, evidences, and judges arguments in order to advance beliefs (Mezirow, 1997). The teachers' discourse provided evidence that Elizabeth challenged her thoughts and experiences to the point that she changed her perspective *and* how she understood her relationship with the world. Whereas, Anne's discourse provided evidence that she explained her problems and identified obstacles but neglected to transform her thinking about the way she understands her relationship with her world. The elements of rational discourse appear to require a certain level of mental complexity from participants. To have rational discourse, for example, a person needs to become critically reflective of assumptions (Mezirow, 1997) which I have established is achievable when a person possesses elements of the self-authoring mindset and develops the idea that they hold some authority over the outcome of problems. Therefore, it appears that a person needs to have some elements of the self-authoring mindset in operation for them to be able to have rational discourse. In addition, a person needs to be empathetic which requires at least a socialized mindset (Mezirow, 1997). These two actions point to a specific location on the developmental trajectory of mental complexity, as if individuals desiring transformative learning need to be making the transition from the socialized mind to the self-authoring mind.

Merriam (2004) critiqued the idea that the critical reflection necessary for transformative learning was accessible to all individuals. Instead, she suggested that critical reflection on the premise of a problem requires a certain level of cognitive development. My findings that the teacher with the socialized mindset in equilibrium did not demonstrate any critical reflection on

the premise of issues; whereas, the teacher in transition from the socialized to the self-authoring mindset was able to reflect on the premise of issues, thus potentially supporting Merriam's conjecture. Merriam further suggests that a person must obtain a certain level of cognitive development to experience transformative learning. Kegan (2000), however, argued that the goal and result of transformative learning is to achieve a more complex level of mental complexity. Kegan also specifically illustrated that in order for a person to transform their habit of mind (Mezirow's language) from the socialized to the self-authoring mind, for example, they would require a change in their relationship with authority that would help them be able to see how they themselves hold some authority over the happenings within their world. This new understanding would then allow the person to reflect on their own internal authority, which would be growth in their mental complexity, and the premise of how they have defined the problem. Kegan's explanation reiterates the importance of when trying to support teachers' transformative learning, we need not to worry about what they are capable of, as Merriam pointed out, but focus instead on using what the teachers know and how they understand their environment to guide professional support we plan to provide.

The teachers' experience of transformative learning inside the PD suggests they began the study with varying levels of readiness for transformation. Anne began the PD with her mental complexity at homeostasis, indicating that for her to change she would need to go through the whole process of transformative learning, starting with a disorienting dilemma. Elizabeth, however, was already in transition from one level of mental complexity to the next, indicating that she may only need critical reflection and rational discourse to support her transition. As noted above, Elizabeth, in fact, experienced lots of critical reflection and rational discourse alongside growth in her mental complexity reconfirming the relationship of the transformative

learning process and developing mental complexity (Kegan, 2000). Anne also participated in some forms of critical reflection and discourse, but maintained equilibrium in her socialized mindset. However, as Kegan suggests, we should not limit our understanding of the teachers' experiences to what they are able or unable to do, but instead focus our efforts on using what we know about the teachers' mental complexity to disrupt equilibrium and support cognitive development.

The learning environment and whole(hearted) teacher development. My goal as the facilitator in this literacy PD, was to function as a midwife-teacher who supported the teachers' established learning goals and to help them come to know the knowledge they already possessed (Belenky et al. 1997). According to Belenky et al. (1997), this meant I needed to validate each participant's knowledge and ability, support the teachers to set their own learning goals, help participants to produce their own ideas, and connect with each participant's point of view. I also intended to provide an environment that supported rational discourse as outlined by Mezirow (1997) in his parameters for transformative learning. Rational discourse requires an environment where participants:

“have full information, are free from coercion, have equal opportunity to assume the various roles of discourse; become critically reflective of assumptions, are empathetic and open to other perspectives; are willing to listen and to search for common ground or a synthesis of different points of view; and can make a tentative best judgment to guide action”. (Mezirow, 1997, p. 10)

Both theories' suggestions for the learning environment run counter to short term professional development environments. Instead, the learning environment for this literacy PD shifted the authority to lie mostly with the teachers. In this study, the teachers set their own learning goals,

provided the majority of the content, and directed much of the content. The facilitator, in contrast did provide structures to organize when and how they shared the content, offered empathy, shared her own shame, and modeled vulnerability. After examining the group interactions, I noticed that each teacher's experience of the learning environment was slightly different.

In this study, validating others' knowledge, connecting with their point of view, and helping others see the knowledge they already possessed were all considered empathetic acts. All participants, including the facilitator, received some empathy from the other participants. The kinds of interactions and support I, as the facilitator, provided each teacher appear to be differentiated (See Figure 6 for an illustration of the teachers' different environmental experiences). Elizabeth gave empathy equally to Anne and I. I shared significantly more

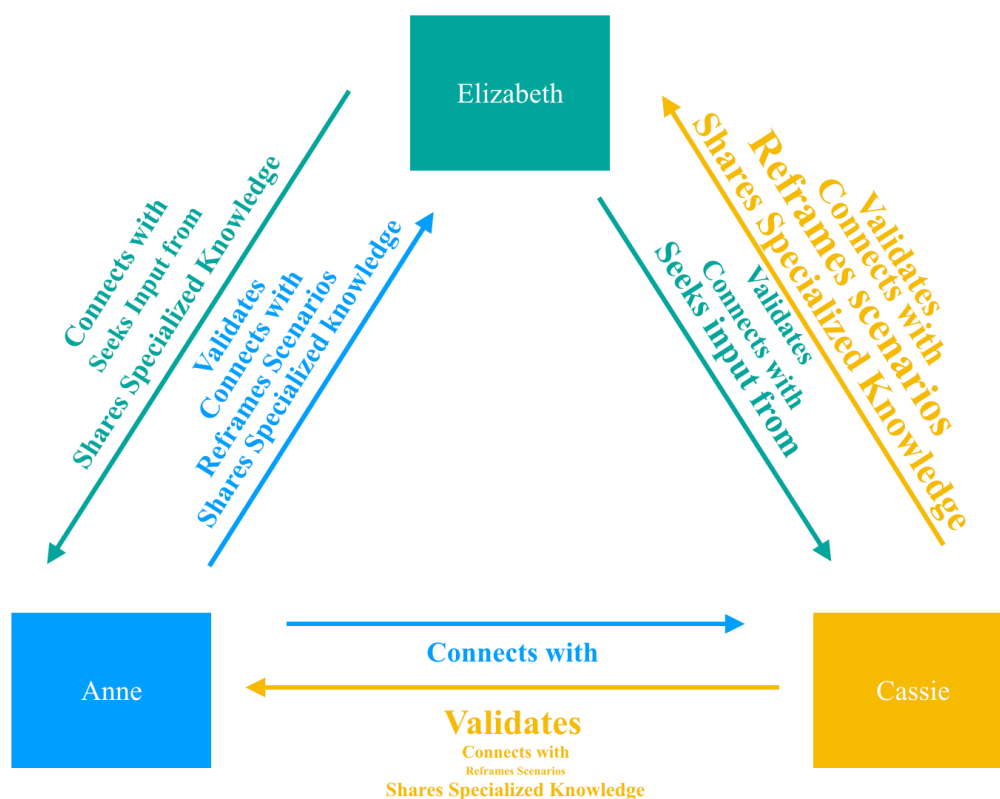


Figure 6. Teacher's Experience of Professional Development

empathy to Elizabeth than Anne, except Anne received lots of validation from me. Elizabeth who experienced whole(hearted) teacher development also received the most empathy and specialized knowledge from the group. We cannot know if she received the most because she needed it most, because she was most ready for it, or for some other reason. However, her experience of the PD environment was significantly different than Anne's experience of the environment and may have contributed to her growth.

Implications

The purpose of this study was to examine teachers' experiences with whole(hearted) teacher development—a new construction of teachers' personal and professional growth. The findings of this study have implications for teachers' professional development in particular. In this section I suggest some of the PD implications based on my understandings of the data and findings.

First, examining teachers' experiences within the literacy PD designed to support whole(hearted) teacher development revealed how teachers' levels of mental complexity are likely interfering with their professional development further exemplifying an existing relationship between personal and professional growth. This study suggests that teachers' personal qualities such as their mental complexity and their understanding and employment of shame and vulnerability could be largely impacting the results of existing professional development practices. Therefore, we should be considering teachers' current relationship with whole(hearted) teacher development when planning and implementing effective professional development.

Second, if teachers' mental complexity dictates the depths at which teachers can critically reflect, then their professional growth may be limited without personal growth. As we know, transformative learning requires a disorienting dilemma, critical reflection, and rational

discourse. The findings in this study indicate that teachers' ability to critically reflect is mediated by their mental complexity. According to transformative learning theorists, critical reflection is thinking about the *premise* a problem relies on and leads to questioning a person's assumptions around that strand of thought (Mezirow, 1991; Kreber, 2004; Merriam, 2004; Taylor, 2007). Some teachers, therefore, may not yet be able to think about the premise the problem relies on and would be limited to seeing external premises instead of internal ones.

Third, my study concurs with Smith's (2011) findings that how a teacher constructs and uses their professional judgment is related to their mental complexity. If, for example, a teacher holds a socialized mindset they are likely to rely on external sources to create their professional judgment, whereas someone with a self-authoring mindset is likely to hold their own internal beliefs that they use as their professional judgment. The desire for teachers to rely more on their professional judgment may be better understood by also considering and growing teachers' mental complexity.

Fourth, one of the biggest differences in the two teachers' experiences inside this PD was Elizabeth's report of a reduction in her stress level regarding her role as a teacher. She explicitly attributed part of her reduced stress to her participation in this PD. When you consider her stress reduction, alongside her growth in whole(hearted) teacher development, her results suggest that the self-authoring mindset could be more appropriately matched for the teaching profession. Determining a person's ideal mental complexity can only be done when considered alongside their current experience of "hidden curriculum of adult life" (Kegan, 2000). In other words, the demands their jobs and relationships put on them should be matched with their mental complexity. Using a different approach to answer the same question, Smith (2011) found that most exemplary teachers defined as candidates for Teacher of the Year relied on a self-authoring

lens which suggests that to meet the high demands of the modern educational climate teachers need at least a self-authoring mindset to be both effective, efficient, and less stressed. Pairing my study's findings with Smith's findings provides even clearer support for the necessary shift in teachers' mental complexity towards the self-authoring mindset.

Fifth, a learning environment marked by significant empathy supported a teacher's, who was already in transition, whole(hearted) teacher development. Interestingly, the other teacher who was not making progress in her mental complexity did not receive as much empathy from her colleagues. The learning environment varied for both participants, likely due to the receptive nature of the learning environment. Finally, large amounts of empathy were considered a strong support of whole(hearted) teacher development.

Lastly, though my study emphasizes the importance of teachers' personal development, it does not completely remove the need for informational learning. Instead, teachers' professional development needs to add personal development to the docket of teachers' PD. Teachers will need both transformational and informational learning to continue to succeed as classroom teachers in the modern educational classroom that is marked with dynamic demands. There are always limits to what teachers currently know and new information that teachers need to attain. This study suggests that in order to grow teachers' professionalism, ability to critically reflect, and efficiency, as well as decrease teacher stress, we need to be working on growing teachers' mental complexity and knowledge of shame and vulnerability through whole(hearted) teacher development in addition to adding to their informational knowledge.

Future Directions

This study shows that there is a relationship between personal and professional development that needs further exploration. This study supports the notions that critical

reflection and professional judgment are related to mental complexity, and the self-authoring mindset is a better match for the teaching profession than a socialized mindset, however, there were also some lingering questions that warrant investigation.

First, whole(hearted) teacher development is when teachers experience growth in both their mental complexity and their understanding and application of shame and vulnerability. And whole(hearted) teacher development requires a specific learning environment. One of my most pressing questions is: is whole(hearted) teacher development, as I have constructed and assessed it, important for teachers' professional development? I think the answer is twofold: A) understanding mental complexity and its influence on teachers' professional development will be critical for helping teachers rise to the challenges outlined by modern educational reforms such as ESSA; and B) teaching teachers about shame and vulnerability and its relationship with learning in a supportive learning environment as outlined in whole(hearted) teacher development carries the potential to spur teachers' transformative learning necessary to better align their mental complexity with the demands of their job. Future research should focus on better understanding the relationship between shame and vulnerability and growing individuals across the socialized mindset to the self-authoring mindset trajectory.

This study showed that educating teachers on shame and vulnerability and the roles they play in learning could create changes in their thinking and their practice. However, teaching teachers about shame and vulnerability did not result in immediate transformative learning for both parties. Instead, the teacher already in transition did experience growth in her mental complexity whereas the teacher in homeostasis did not exhibit evidence of growth in her mental complexity. However, teaching teachers about shame and vulnerability and learning did appear to be fertile ground for transformative learning. One way to learn more about the relationship

between shame and vulnerability and mental complexity would be to reassess Anne's and Elizabeth's mental complexity a full year after the beginning of this project to determine whether they continued to make progress or not. At that time, it would also be important to assess their perceptions of the source of their growth as well.

The process of transformative learning requires three critical steps. This study also supported the finding that a person's ability to critically reflect on the premise of issues is closely related to their mental complexity. If critical reflection is the vehicle that transforms meaning structures in the mind (Kegan, 2000), and a person's mental complexity is related to the kind of critical reflection they are capable of, we need to know more about how people with a socialized mindset—those with more external and relational understandings—can develop their ability to reflect on the premise of problems. Kegan (2000) does suggest shifting a person with a socialized mindset's relationship with authority to bring about transformative learning and cognitive development. He equated this practice with the generally accepted practice of transferring authority from the educator to the learner in adult education. In this study, the teachers were given the space and authority to set their own learning goals for their own professional development, which they both agreed was different than the professional development they had participated in previously. Because this study followed Kegan's advice and attempted to change the participants' relationship with authority there is additional cause to revisit Anne in a few months to assess whether or not she has begun the transformative learning process and, if so, to determine from her experience what sparked her transition.

After the completion of my analysis, I was left curious about how the teachers' mental complexities were evolving during the PD. Future studies examining the relationship between personal and professional development should spend time asking and analyzing the sources

behind participants' statements. For example, when teachers make belief statements or claims, a researcher could follow-up in an informal meeting with questions such as: how do you know...? Or what is most important to you about...? Questions similar to those in the subject-object interview protocol to obtain measureable material throughout the study, not just at the beginning and the end that could shed more light into the constructive-development process.

This study reconfirmed the relationship between transformative learning as the process used to create growth in an individual's mental complexity. However, future research should include participants' perceptions on their experience with disorienting dilemmas, critical thinking, and rational discourse to help draw clearer connections between the transformative learning process, growth in individuals' mental complexity, and/or wholehearted teacher development.

By the completion of this study, at least two studies now suggest that the self-authoring mindset is the best match for the complexities of teaching (Smith, 2011; Norvell, 2018). It is time for a study that determines the kind and/or type of relationship between mental complexity and the underwritten curriculum of teaching. A future study could compare teachers' mental complexities with their stress levels, their own perceptions of their efficiency, and/or their effectiveness scores to better understand how mental complexity relates to the complex job of teaching.

Conclusion

I began this study because I believed there was a better way to support literacy teachers than to barrage them with new fad ideas, practices, and materials from a disconnected group of scholar/experts. In my quest for a better solution, I found the ideas behind constructive-developmentalism that introduced a way to talk about not just new knowledge, but new ways to

organize the knowledge teachers possess. Around the same time, I discovered the gifts of knowledge of shame and vulnerability and their potential to unlock a person's access to a new way of knowing. I, therefore, set out to design a form of PD that supported teachers using these new perspectives. I decided it would be best to try and understand how teachers experienced this new form of PD and to use their experiences to help the field understand the significance or insignificance of whole(hearted) teacher development that I would find.

As a result of this study, I found that these two teachers' experiences of whole(hearted) teacher development helped me see the connections between professional and personal development—how professional development really should include personal development to help teachers better match their mental complexity with the complexities of their job. I also uncovered a strong relationship between teachers' mental complexity and their ability to critically reflect that may be the hidden key to drastically improving teachers' potential to grow. I found traces of support for educating teachers about shame and vulnerability via Brown's shame resilience theory and its potential contribution to their transformative learning resulting growth in mental complexity. I learned that an empathy-rich environment supported whole(hearted) teacher development. And I learned that there is a place for both transformative learning and informational learning in teachers' professional development.

My hope going forward is that the field of professional development will continue to absorb the importance of knowing and growing the whole teacher when trying to help teachers better meet the needs of all their students. The teachers in this study made sure to report that they were very thankful to have time to slow down, think about, discuss, and get feedback on the changes they wanted to make to their practice. They were so impacted by the PD that they expressed a desire to continue meeting beyond the established PD sessions just to keep up the

accountability and maintain the safe space they created. Elizabeth summed it up saying, “there is something to be said about having a set time to sit down, stay focused, and keep the conversation on teaching and learning” (informal check-in).

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Appendices

Appendix A

Professional Development Guide

The content as well as the protocol for the professional development is drawn from the theoretical framework for whole teacher development. Specifically, the content—or what is taught—will be organized around the three essential tenants of Transformative Learning: a disorienting dilemma, rational discourse, and critical reflection (Mezirow, 1991).

Disorienting Dilemma. A disorienting dilemma will be generated through teachers experiencing new and potentially conflicting information such as information about adult learning, new ideas about reading instruction, peer’s beliefs and experiences, and through examining their own or their peers’ practice.

Rational Discourse. The whole teacher development will take place in the context of a group setting where peer teachers come together with a facilitator and share rational discourse around topics and ideas. The group setting for whole teacher development will require establishing a strong sense of community among teachers and facilitator. Dialogue of individuals’ experience, thinking, and ideas will be shared in the group setting to build shared experiences contributing to a mutually empathic relationship among group members (Brown, 2006). Participants will have access to:

- “accurate and complete information
- be free from coercion and distorting self-deception
- be able to weigh evidence and assess arguments objectively
- be open to alternative perspectives
- be able to become critically reflective upon presuppositions and their consequences

- have equal opportunity to participate (including the chance to challenge, question, refute, and reflect and to hear others do the same) and
- Be able to accept an informed, objective and rational consensus as a legitimate test of validity” (Mezirow, 1991, p.77-78)

Critical Reflection. Finally, teachers will participate in critical reflection on their own practice and of the group meetings through written or oral recordings. Reflection in this study refers to the process of testing the validity of prior learning, thinking, feeling, beliefs, action, and/or assumptions (Mezirow, 1991). The following is a list of potential practices to generate critical reflection adapted from Drago-Severson (2004) and Levine (1989):

- Free write to dump the day’s happenings
- Discussion on a topic ---members write about the topic between sessions, then reflect in the group about their thinking from their in between writing
- Post Session Reflections—at the end of our sessions together, teachers will be asked to reflect on how their thinking progressed as a result of this week’s work. These reflections will be short and done online and will provide a log accessible to the teacher and researcher.
- In small groups provide each other formative feedback ... (On instruction?). Be sure to teach them how to give good feedback that they can hear to each other
- PD session Synthesis—the facilitator would synthesize notes from the PD sessions and send out to the teachers as a record of our discussion.
- Journaling
- Written reflections on own instruction with or without a reflection guide

Learning Goals for the Professional Development

Learners will:

- 1) Increase understanding of principles of adult learning
- 2) Apply principals of adult learning by examining our own developmental process
- 3) Increase understanding of literacy development
- 4) Apply tenants of literacy development by analyzing struggling student work

Content Available for Literacy Professional Development

Guide	Activities	Purpose
Why Literacy? Why Change? (PD session 1) ESSA	-Show ESSA Language & Goal. -Discuss strengths and areas to strengthen of current climate: state, district, and School	Have teachers reflecting on current climate of education: state, district, school, and classroom level especially in terms of literacy practices.
	Finish the conversation with own strengths as teacher and specifically as a literacy teacher	Begin with a look at what we have to offer. Talking about our strengths can be lower stakes than discussing own areas to strengthen. Also, help me gain perspective on how they are seeing their current situation.

How to be in a community? (How to collaborate) (P2) Shame Vulnerability	-Discuss what goes well in PD & What does not go well -Discuss Personal expectations for this PD?	Have teachers reflecting on what supports their learning and what draws away from their own professional learning. Establish any pre-existing expectations up front.
	--View BB's Ted Talk on Vulnerability -Talk about what stood out to teachers: What did you hear that you liked? that you disliked? What was exciting? What was challenging about her talk? -Talk about What can we apply to our setting?	Expose teachers to concepts of Shame Resilience, get their reactions, responses, and current understandings of the Theory. Contemplate and establish how these ideas could translate into our group PD practice. Have available readings & resources if teachers are interested in deeper understanding.
	-View BB's TedX Talk on Shame -Talk about what stood out to teachers: What did you hear that you liked that you disliked? What was exciting? What was challenging about her talk? -How does shame influence our interactions with work colleagues? How does shame influence collaboration? How does shame influence our teaching?	Expose teachers to concepts of Shame Resilience, get their reactions, responses, and current understandings of the Theory. Contemplate and establish how these ideas could translate into our group PD practice. Ask Teachers if they want to read chapter for next week or break up chapter across next few weeks. *Have available readings & resources if teachers are interested in deeper understanding.
	-Set some ground rule expectations for our interactions. (Ex. Focus on students' happenings in observations?)	Establish guidelines for our interactions that support each other to be resilient to shame and ultimately be vulnerable enough to grow professionally and personally. (need some ideal ones before this meeting)

Improving literacy instruction (P3)		
What makes good literacy instruction? —Basal Reading from RT	Read and discussed Shields to vulnerability: Foreboding joy -Discuss what we already know about good literacy practices by writing down teachers ideal literacy block. -Establish a picture of Good Literacy Instruction -Then, identify the holes in our picture of good literacy instruction through challenging our picture with readings and videos of good practice that fill in the gap for the holes.	Reference Immunity to Change Process here on how they get to good goals. The goal is to marry Brown's concepts of Shame Resilience and with the WWK environment necessary for women's learning. Instead of mimicking the Immunity to change process. So,
What are my strengths and areas to strengthen in instruction? Set Instructional Improvement goal	Read and Discuss shield to vulnerability: Perfectionism Teachers discuss ideal literacy block compared to actual literacy block. Make plan for what to improve.	Teachers discussed what they need to make desired changes.
Work to facilitate desired changes in practice.	Co-construct how to improve personally set goals	
Own personal challenges to learning		

Appendix B

Case Study Data Collection Protocol

The data collection protocol is organized by the research questions for this study at the top level (Capital Letters), followed by procedural questions and sub-questions at the next two organizational levels, followed by potential data sources at the final level.

A. What is teachers' experience of literacy PD designed to support whole(hearted) teacher development?

-How does the facilitator contribute to the literacy PD?

-What does the facilitator do?

Field notes, recordings of PD sessions

-How do the participants perceive the facilitator's role in whole teacher development?

Post interview/survey questions

-What is the content of the literacy PD designed to support WHTD?

Field Notes, Recordings of PD sessions

-How do the teacher participants' interactions inside the literacy PD contribute to their WHTD?

-How do the teachers interact?

Field notes, recordings of PD sessions, artifacts from PD

-How are their interactions related to their M/C?

PD sessions, SOI Interviews, informal Check in

-How are their interactions related to their WHTD?

PD sessions, Informal Check-in

-What changes do teachers perceive they make as a result of the Literacy PD?

Informal check-in, PD sessions

-How does their use of SRT change across time?

Field notes, recordings of PD sessions, artifacts from PD

-What other things happen inside the literacy PD designed to support WHTD?

PD sessions, informal check in

B. How does literacy PD designed to support whole teacher development effect a teacher's cognitive development?

-How do teachers' pre and post subject-object interviews compare?

-Pre and post SOI

C. How does a literacy PD designed to support whole teacher development influence a teacher's literacy practices?

-PD sessions teacher self report

-Classroom observation protocol

Future Research Question

D. How does a literacy focused whole teacher development influence student literacy outcomes?

Appendix C

Subject-Object Interview Protocol*

*Adapted from Fantozzi (2010) and Lahey et al. (1988)

Prior to the interview:

- Inform the participant that the interview can take up to 90 minutes
- The goal of this interview is to understand “how you think about your experiences”
- I will present a variety of topics, some of which you may feel are sensitive in nature and you are in no way obligated to discuss anything you do not want to discuss

Phase 1

Hand the participant 10 cards, each one labeled with one of the following terms:

- Important to me
- Change
- Angry
- Sad
- Anxious, Nervous
- Success
- Torn
- Lost Something
- Moved, Touched
- Strong Stand, Conviction

Tell the participant: “The cards are for you to write down things that you may want to talk about later in the interview. The cards are for your eyes only, I will not see them, and you may take the cards when you leave or throw them away.”

“We will spend the first 10 minutes with the cards, I will provide you with a prompt and you will write down a response. We will then spend the remainder of our time talking about the things that you noted that you would like to talk about. You will choose the topics and we do not have to talk about anything you don’t want to talk about, even if it is on the card.”

“Please take the first card. (Angry) If you were to think back over the last few weeks or even the last couple of months, and you had to think about a time you felt really angry about something, or times you got really mad or felt a sense of outrage or violation---what are the 2 or 3 things that come to mind? Take a minute to think about it, if you like, and write down on the card whatever you need to remind you of those things.” (If nothing comes to mind for a particular card, skip it and go on to the next card but make sure to give the participant a time to think before skipping a card.)

Follow the same procedure for the next nine cards using the following prompts:

(Anxious, Nervous) “...If you were to think of some time when you found yourself being really scared about something, nervous, anxious about something...”

(Success) “If you were to think of some times when you felt triumphant or that you had achieved something that was difficult for you or especially satisfying that you were afraid might come out another way or a sense that you had overcome something...”

(Strong stand, Conviction) “...if you were to think of some times when you had to take a strong stand, or felt very keenly ‘This is what I think should or should not be done about this,’ times when you became aware of a particular conviction you held...”

(Sad) “...if you were to think of some times you felt sad about something, perhaps something that even made you cry or left you feeling on the verge of tears...”

(Torn) “...if you were to think of some times you felt really conflicted about something, where someone, or some part of you, felt one way or was urging you in one direction, and someone else or some other part of you was feeling another way; times when you really felt kind of torn about something...”

(Moved, Touched) “...If you were to think of some times when you felt quite touched by something you saw or thought or heard, perhaps something that even caused your eyes to tear up, something that moved you...”

(Lost Something) “If you were to think of some time you had to leave something behind or were worried that you might lose something or someone; ‘good-bye’ experiences, the ends of something important or valuable; a loss...”

(Change) “As you look back at your past, If you had to think of some ways in which you think you’ve changed over the last few years—or even months, if that seems right—are there some ways that come to mind?”

(Important to Me) “If I were to ask you, ‘What is the most important thing to you?’ or ‘What do you care deepest about?’ or ‘What matters most?’ –are there 1 or 2 things that come to mind?”

Phase 2

“Now we will talk about some of these things you’ve recalled or jotted down. You can decide where we start.” (If they are hesitant to pick— “Is there one card you felt more strongly about than the others—or a few cards?”)

During this time the participant shares their thoughts and experiences and the interviewer will probe their responses.

Appendix D

Literacy Classroom Observation Protocol*

*Adapted from Bean, Fulmer, and Zigmond's (2009)

Teacher: _____ Grade Level: _____
 Date: _____ Time began: _____ End time: _____
 # Students Present: _____ Lesson Focus: _____

Materials: (circle all that apply)

Textbook
 Board/Chart
 Computer
 Worksheet
 Student Work
 Other: _____

Group

Whole Class
 Small Group
 Pairs
 Individual

Adults

Teacher
 Reading Specialist
 Reading Coach
 Instructional Aid
 Other: _____

Protocol to be used as a guide. Scale to be completed after the observation has been completed.

Scale	Great Extent 3	Some Extent 2	Min Extent 1	Not Observed 0
Classroom Environment: Print Rich Classroom Library is accessible <i>Students are able to gain easy access to the library in the classroom. Books are eye level.</i>				
Library has wide variety of books/genres <i>Library includes informational, pleasure, poetry, language play, reference materials, etc.</i>				
Reading and/or writing strategies are displayed <i>Strategies posted are informative tools designed to promote classroom learning.</i>				
Reading Spaces are inviting	Yes	No		
Learning centers are evident	Yes	No		
Student work on Display inside/outside	Yes	No		

Scale	Great Extent 3	Some Extent 2	Min Extent 1	Not Observed 0
Classroom Management/Climate Maintains Positive Learning Environment <i>Interactions are respectful and supportive. Tone and atmosphere are encouraging.</i>				
Encourages High Level of Student Participation <i>Teacher facilitates active engagement of students during lesson.</i>				

Maintains Effective Behavioral Routines <i>Clear expectations are established by teacher and internalized by students. Minimum time is spent in transitions.</i>				
Maintains Robust Literacy Routines <i>Teacher facilitates strong literacy routines that are recognized and understood by students.</i>				
Preserves Student On-Task Behavior <i>Teacher consistently facilitates student engagement during reading instruction.</i>				

Scale	Great Extent	Some Extent	Min Extent	Not Observed
	3	2	1	0
Instructional Practices				
Introduces and Reviews Concepts/Skills Clearly <i>Teacher Develops concept or skill plainly and accurately. The concept or skill introduced is evident.</i>				
Differentiates Literacy Instruction <i>Teacher appears to use individual student literacy performance in planning instruction. Literacy learning is structured for small groups or individual students.</i>				
Facilitates Text Comprehension <i>Teacher helps students to make connections to targeted concepts; activities student background knowledge; engages students in high-level thinking activities; encourages students to make predictions; summarizes, retells, or makes use of graphic organizers to organize their thinking.</i>				
Engages in Coaching/Scaffolding <i>Teacher provides corrective feedback by prompting the student in an effort to encourage the student to arrive at the correct answer independently.</i>				
Highlights Significance of Reading Process <i>Teacher emphasizes the reading and writing process and the use of strategies; "A good reader sees the parts of words to help him or her decode. A good reader/writing does..."</i>				
*Models skills/Strategies <i>Teacher demonstrates a particular skill or strategy to students.</i>				
*Provides Guided Practice <i>Teacher supports students in practicing targeted skill or concept. Teacher provides opportunities to practice</i>				

<i>literacy learning.</i>				
*Provides/Monitors Independent Practice <i>Teacher has students practice targeted concept/skill individually and monitors by giving feedback when needed.</i>				
*Provides Application Activities <i>Teacher has students apply targeted concept to new learning for problem solving and independent learning. Students take responsibility for their own literacy learning.</i>				

*Gradual Release of responsibility model (GRRM; Pearson & Gallagher, 1983).

Appendix E

Whole(hearted) PD in literacy Check-In

This is a space for you to share your experience of the PD. How is it going for you? What do you think is working and not working? How has it impacted you, if at all? And any other reflections you have about this professional development experience. It is extremely important that you be honest about your experience! This survey has 7 sections and could take around 30-45 minutes to complete. Thank you for your generosity with your time!

1. Email address

Whole(hearted) PD in literacy

2. Across the past five months of whole(hearted) PD in literacy, what did you as a participant do during the PD sessions?
3. Across the past five months of whole(hearted) PD in literacy, what did the facilitator do?
4. What did you like about whole(hearted) PD in literacy?
5. What did you not like about whole(hearted) PD in literacy? Be honest!
6. What did you find most helpful about whole(hearted) PD in literacy?
7. What did you find least helpful about whole(hearted) PD in literacy? Be honest.
8. What parts of whole(hearted) PD in literacy did you feel comfortable with? Why?
9. What parts of whole(hearted) PD in literacy did you feel uncomfortable with? Why?

Changes

10. How did your instruction change, if at all, as a result of whole(hearted) PD in literacy?
11. What in the PD, specifically, can you attribute your instructional changes to?
12. How did you (personally) change, if at all, as a result of whole(hearted) PD in literacy?
13. What in the PD, specifically, can you attribute any of your personal changes to?
14. Have your changes impacted your students or others you share a relationship with? If so, how?

Future PD

15. If you were given the opportunity to participate in whole(hearted) PD in the future, would you? Why or why not?
16. What major factors would most influence your decision to participate in PD like this in the future? (facilitator, time commitment, other participants, etc.)

Other Comments

17. Please use this space to share any other comments, concerns, ideas, or thoughts about your experience of whole(hearted) PD in literacy that you think the field of research in teachers' professional development needs to know.

Appendix F

Task 1. What is Vulnerability?

1. **Discuss.** In your experience of PD, what has contributed to your professional learning and what has taken away from your professional learning?
2. **View.** *The Power of Vulnerability*, Brene Brown's TED talk about Vulnerability
3. **Discuss:** What stood out to you?
 - What did you like?
 - What was off-putting?
 - What was exciting?
 - What was challenging?
 - How can we relate her ideas to us in collaboration? What will be important?

Task 2. What is Shame?

1. **Discuss.** Last week after watching Brene Brown's Ted talk we mentioned that we would need to be vulnerable in our group to help us learn. What does vulnerability mean?
2. **Discuss.** We also mentioned that we would need courage to be imperfect and I wonder what you all think about that? What does it mean to you? Is it true we need courage to be imperfect? Or not?
3. **Discuss.** The other point we left with was we need self-compassion to be kind to ourselves...what is self-compassion, do you still think we need it?
4. **View.** Brene Brown's 2nd Ted talk about Listening to Shame.
5. **Discuss:** What is vulnerability?
 - What is shame?
 - What is empathy?
 - How can we combat shame in our small group?

Task 3. Ideal Literacy Block

1. **Prompt.** Try and get at what we believe in as good literacy practices. Write out your ideal literacy block or your “This I believe..” about literacy
2. **Independent writing time.**
3. **Share.** Tell the group about your ideal literacy block.
4. **Discuss.** As a group identify the similarities and differences between the ideal literacy blocks shared.

Vita

Cassie K. Norvell was born in Knoxville, TN on May 24th, 1988, to her parents Robert Maples and the Late Wanda K. Ogle. She graduated from Gatlinburg-Pittman High School in 2006. She earned a Bachelor of Arts degree in English with a minor in Middle Grades Education from The University of Tennessee, Knoxville in 2010 and a Master of Science degree in Curriculum and Instruction from The University of Tennessee, Knoxville in 2011.

Before entering the doctoral program, she was an intervention teacher for one year and a 4th grade teacher for two years in Sevier County Schools. During her work at The University of Tennessee, Knoxville she taught a variety of undergraduate and graduate education courses and supervised pre-service elementary teachers during their internship year.

In December 2018, Cassie earned her doctorate in Education with an emphasis on Literacy Studies. Her research interests include professional development for teachers that focuses on teachers' cognitive development and students' literacy development, the application of shame and vulnerability to teachers' professional experiences, and developing teachers' diagnostic insight in literacy. Cassie is currently actively involved in the Literacy Research Association and the International Literacy Association. In the fall of 2018, Cassie will begin work as a Clinical Instructor in Literacy Studies at The University of Tennessee.