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MODELING READING TEACHER EXPERTISE: USING THE MODEL OF DOMAIN LEARNING TO EXAMINE READING RECOVERY TEACHER EXPERTISE

A DISSERTATION

Submitted to the Faculty of
Montclair State University in partial fulfillment
of the requirements
for the Degree of Doctor of Philosophy

by
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Upper Montclair, NJ
2016

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THE GRADUATE SCHOOL

DISSERTATION APPROVAL

We hereby approve the Dissertation

MODELING READING TEACHER EXPERTISE: USING THE MODEL OF DOMAIN
LEARNING TO EXAMINE READING RECOVERY TEACHER EXPERTISE

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ABSTRACT

MODELING READING TEACHER EXPERTISE: USING THE MODEL OF DOMAIN LEARNING TO EXAMINE READING RECOVERY TEACHER EXPERTISE

by Tammy Mills

The purpose of this qualitative study was to describe and explain the manifestation of expertise among Reading Recovery teachers using the Model of Domain Learning. The focus of the inquiry was to description the components of the Model of Domain Learning, interest, knowledge, and strategic processing, as each existed among this group of Reading Recovery teachers. Highlighted is the interaction among the three components as well as how that interaction manifested as multiple stages of expertise, acclimation, early competence, mid-competence, late competence, and proficiency. The following research questions guided my inquiry:

1. When examined qualitatively and multidimensionally, how is expertise manifested among 8 RR teachers who are located in rural, Northeast, coastal elementary schools, sharing the same teacher leader and attending the same Continuing Contact sessions?

2. What is the capacity of the MDL to illuminate previously undiscovered aspects of the manifestation RR teacher expertise?

3. What constructs of the MDL may be in need of further conceptualization for the model to more thoroughly describe expertise in complex, ill-structured domains?

I collected and analyzed questionnaire responses, conducted semi-structured interviews, and made observations and recorded field notes of Continuing Contact
sessions and Behind-the-Glass presentations. These data were analyzed by qualitative methods. I reported my findings through an instrumental case study.

My analysis of the data indicated that expertise in Reading Recovery teachers manifested as an interaction among interest, knowledge, and strategic processing. Contrary to previous studies using the Model of Domain learning in which authors suggested that learners would exhibit a lower level of interest at the start of their learning, I discovered that these teachers each possessed heightened interest in Reading Recovery at the beginning of their Reading Recovery career and that this heightened interest was sustained throughout their careers as Reading Recovery teachers. My data analysis also indicated that expertise among these teachers was dependent on their fluid, flexible, accessible Reading Recovery knowledge. Additionally, I found that Reading Recovery was represented by the teachers’ ability to scaffold instruction for each student. Further, analysis evidenced that the component of interest may need to be examined more broadly, with a closer look at the role of emotions on Reading Recovery teacher expertise development.
ACKNOWLEDGEMENTS

A dissertation is a journey, an exploration through a maze of possibilities in which some paths end and others lead to new direction. It is a constant revision process, of writing and of thinking. Completing a dissertation is an important goal, but the value lies in the journey of the process.

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The Reading Recovery teachers and their Teacher Leader, along with their schools and districts, who generously participated in this learning experience, have my heartfelt appreciation. It is through self-reflection that we struggle to understand the reality of the present in order to make gains in the pursuit of excellence.

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CHAPTER I: OVERVIEW

The past decade has been marked by questions of how to systemically and consistently prepare and develop exemplary teachers (Grossman, Schoenfeld, & Lee, 2005). More specifically, researchers have begun to examine how teachers gain and structure expertise, and how teacher educators can support that process. Study of expertise development as a multifaceted process influenced by cognitive and affective constructs offers justification for the examination of teacher expertise through a variety of lenses (Alexander & Jetton, 2000; Alexander, Sperl, Buehl, Fives, & Chiu, 2004).

Concurrently, teachers are facing increasing accountability demands regarding the reading achievement of their students (e.g., Konstantopoulos, 2014; McColsky, Stronge, Ward, Tucker, Howard, & Lewis, 2005). Despite those demands for increased accountability, and an accompanying focus on teacher quality, little attention has been given specifically to the multidimensional nature of expertise development of teachers of reading, an acknowledged ill-structured, complex domain (Spiro, Vispoel, Schmitz, Samarapungavan, & Boerger, 1987).

An exploration into reading teachers’ continued development of expertise in reading instruction within the context of their ongoing professional learning appears warranted. The study of the multidimensional nature of teacher expertise development for reading instruction can offer improved understanding of its challenges and hallmarks, and may provide a window into how university- and school-based teacher educators could provide more consistent, cohesive and relevant teacher preparation and development.
Learning to teach reading is a specific domain that is both ill-structured and complex (Spiro, et al., 1987; Spiro, Coulson, Feltovich, & Andersons, 1988). The model of domain learning (MDL) offers a multistage, multidimensional portrayal of learning, and has the potential to be an explanatory tool for the complex nature of the manifestation of reading teacher expertise (Alexander, 1997; Alexander, et al., 2004). Figure 1 provides a visual description of the MDL in which learning encompasses both cognitive (i.e., knowledge and strategic processing) and affective components (i.e., interest) (Alexander, Jetton, & Kulikowich, 1995). The MDL portrays the relationship among knowledge, strategic processing, and interest across three stages: acclimation, competency, and proficiency or expertise (Alexander, 2003). Alexander posited that continued learning depends on the ongoing interaction among interest, knowledge, and strategic processing during each of the stages; acclimation, competency, and proficiency (Alexander, 2003).

*Figure 1. Visual description of the MDL (Alexander et al., 1995)*
Statement of the Problem

There is general agreement that educated, skilled, knowledgeable teachers are necessary for achieving improvement in students who struggle with reading difficulties (Clay, 1979; Darling-Hammond, 1991, 1997, 2000, 2012; Gibson, 2010). While most children learn to read at reasonable levels of competence, there are some children for whom additional reading support is necessary (Snow, Burns, Griffin, 1998). Among those requiring additional reading support, there is a particular group of students who require the expertise of Reading Recovery (RR) teachers to catch, and continue to progress, with their classmates (Clay, 2001). Researchers have suggested that the expertise of RR teachers differs from that of classroom teachers (Schmitt, Askew, Fountas, Lyons, & Pinnell, 2005), but how that expertise manifests among individual RR teachers experiencing the same RR instructional model of professional learning has not been examined. The existing research of the influence of RR’s professional development model on teacher learning has been mostly anecdotal, with most of the research focused on student outcomes, cost analysis, longitudinal influence of the program on students’ reading skill, and teacher skills acquired in their training years: not what is happening in their own ongoing learning processes (D’Agostino & Murphy, 2004; Schmitt et al., 2005). A better understanding of the expertise development of RR teachers may help teacher educators have a clearer picture of what is necessary for effective professional development in literacy for all teachers.
Purpose of the Study

The purpose of this qualitative study was to better understand the learning and development of RR teachers by exploring the manifestation of expertise among individual RR teachers within a group of RR teachers located in northeastern, rural, coastal communities who are involved with the same instructional model of professional learning. Guided by the MDL as a conceptual and analytic framework, particular consideration was given to the interactions among the interest, knowledge, and strategic processing of the RR teachers as possible markers of stages of expertise development.

Significance of the Study

This study contributes to the field in two salient ways. First, a model of expertise has not been employed to study RR teacher expertise. The MDL has been used to study expertise development in other academic domains (e.g., Alexander, et al., 1995; Alexander, et al., 2004) but not in the domain of teaching reading. Therefore this study extends the MDL. Second, a better understanding of how RR teachers manifest expertise may help focus teacher leaders and the RR community at large on ways to enhance the expertise development of individual RR teachers. RR is one of the few professional development programs aimed at the development of expertise in teachers (Schmitt, et al., 2005; Lyons, Pinnell, & DeFord, 1993). That is, it is designed to develop teacher expertise, not to implement a program. For that reason, the professional development is ongoing for as long as an individual remains a RR teacher. “Teachers [engage in] exciting situations that engage them simultaneously in theory building, observation of reading situations, and examination of their own teaching (Lyons et al., 1993, p. 203).
Additionally, the study is one of few that attempts to examine expertise as the interactions among interest, knowledge, and strategic processing, exploring how those interactions influence the manifestation of expertise within RR teachers. Implementing qualitative methods to explore RR teacher expertise using the MDL may illuminate previously undiscovered aspects of RR teacher learning and development; as well reveal previously underemphasized components of the MDL.

**Research Questions**

RR is a systematic and comprehensive literacy program that encompasses professional development, a professional support network for teachers and administrators responsible for program implementation (Cox & Hopkins, 2006). RR posits that standardization of the training, support, and professional development, combined with research and evaluation efforts conducted throughout the school year, will ensure implementation of lessons with increasing quality among RR teachers (Clay & Cazden, 1990). When discussing the need for teachers to be able to address diversity among children and their myriad strategies used to learn reading and writing, Clay (1998) suggested, “Whether [the teacher’s] knowledge helps or hinders children’s literacy growth and development depends on the tentativeness and reflective practice of the teachers” (pp.95-96). Thus the foundation of the success of RR teachers is their ability to develop their expertise in meeting the needs of their individual students. For this study I had three goals. The first was to use the MDL to describe the manifestation of expertise of one group of RR teachers. The second was to examine what the MDL could illuminate about the manifestation of RR teachers’ expertise. The third was to note the possible
under-conceptualization of the constructs related to the MDL, and further refine the constructs to enhance the descriptive model’s ability to describe expertise in complex, ill-structured domains. The following questions guided the inquiry:

1. When examined qualitatively and multidimensionality, how is expertise manifested among eight RR teachers in rural, northeastern, coastal elementary schools, sharing the same teacher leader, and attending the same Continuing Contact sessions?

2. What is the capacity of the MDL to illuminate previously undiscovered aspects of the manifestation of RR teacher expertise?

3. What constructs of the MDL may need of further conceptualization for the model to more thoroughly describe expertise in complex, ill-structured domains?

Methods

To examine my research questions, I applied qualitative case study methodology to collect and analyze data. I used a case study because it allowed me to obtain information concerning the phenomenon of the manifestation of expertise of RR teachers in a rural, northeastern, coastal elementary school district from fall 2014 through winter 2015. Eight RR teachers comprised the case. Each individual had received RR training within the MidCoast Elementary School District (a pseudonym), and each had taught in some capacity in the district for more than 10 years. The site was a location where teachers from a variety of surrounding RR schools trained, and attended monthly professional development activities known as Continuing Contact sessions. One of the participants taught RR at the school site where the Continuing Contact sessions were
held; the others taught RR at other schools within the district. I was not familiar with the RR teachers at the MidCoast site, but I was familiar with the Teacher Leader (TL).

**Data Collection and Sources**

I collected responses to one emailed questionnaire, conducted two semi-structured interviews with each participant and completed field-notes of four observations of Continuing Contact sessions from October through April. The first interview session and two observations of Continuing Contact sessions were completed from October through December. I completed the second interview session, and third and fourth observation of Continuing Contact sessions from January through April. (The observation protocols used for recording field notes are fully described in Chapter Three.) Interview questions were designed to understand how the participants viewed the roles of interest, knowledge, and strategic processing in their expertise development. I also conducted member checks with my participants twice during data collection and data analysis phases to help confirm and (or) disconfirm my own interpretations and conclusions of emergent themes and findings.

**Data Analysis**

Guided by the MDL as an analytical framework, basic coding was first used to analyze the data. After multiple readings of the data, themes were identified and coded. Remaining sensitive to themes that fell outside the MDL and the RR model and that demanded further research, I refined and collapsed all codes over several more readings. When overlapping categories appeared, they were collapsed into a major theme whenever possible. Member checks were conducted to assure researcher interpretation.
Limitations

This qualitative case study methodology was limited by the sample size (n=8), which precludes generalization to larger populations. My study was also limited by the fact that I am trained in RR, and therefore may have a vested interest in the results of the study. However, to the best of my ability, I made my researcher positionality clear, and described possible influences of my researcher status on the selection and reporting of relevant data. A further limitation is the fact that all participants were white and female. That situation was unavoidable because of the lack of racial and ethnic diversity within the school sites themselves. An additional limitation relates to data collection procedures. Taking “scripted field notes” of collaborative learning using dialogue required me to parse out the dialogue of the participants from the dialogue of the non-participants. Thus, some of the data from my field notes were decontextualized, lacking the full dialogic context that could lend meaning to the conversation. My writing of “scripted field notes” also may have led to my missing some dialogue among the participants due to my typing speed.

Using the MDL as a descriptive and analytic framework narrowed the lens with which I analyzed these data. Other models of expertise exist (e.g., Berliner, 2000; Horvath, 1995), however I was interested in a model that viewed expertise as continuous, ongoing, multidimensional, and dynamic. Thus, while the MDL limited the breadth of my analytic ability, it was fruitful in analyzing these data from a multidimensional developmental perspective. Using the MDL allowed me to describe components of expertise of RR teachers, identify instances of interaction among interest, knowledge, and
strategic processing, and make tentative conjectures regarding the stages of expertise in which the RR teachers were located. However, data that lay outside the capacity of the MDL to describe and analyze were also acknowledged and considered in Chapter Six.

**Summary**

Over time, and with highly specialized training and professional development, RR teachers actively cultivate their expertise concerning the acquisition of literacy in young children (Clay, 1993; Schmitt, et al., 2005). However, we don’t fully understand the development and manifestation of that expertise. Observations of Continuing Contact sessions provided a context for this study of the manifestation of RR teacher expertise. The descriptive model of expertise, the MDL, proposed by Alexander and Kulikowich was used to examine how RR teachers’ interest, knowledge, and strategic processing interact and result in continued expertise development within the context of an instructional model premised on sociocultural principles.

Chapter Two will present a review of literature and research that: (a) describes the RR instructional model as a context for expertise development in reading teachers; (b) provides an overview of studies related to the expertise of RR teachers; (c) summarizes evidence of RR teacher expertise; (d) describes identified gaps in RR teacher expertise literature; and, (e) examines the use of MDL as an explanatory structure of RR teacher expertise.

The remaining dissertation chapters are organized as follows: Chapters Three, Four, and Five are the methodology and results respectively. Chapter Six comprises the discussion, conclusions, and implications.
**Definition of Terms**

**Reading recovery.** RR is designed to be a short-term (not longer than 20 weeks) intervention for those first-grade students identified to be most at-risk for having trouble in reading and writing. A student receives highly personalized, one-to-one instruction from a trained RR teacher for 30-minutes each day of the school week. The goal of the program is to accelerate the child's progress to that of an average-progress child in his or her class. When a child is able to maintain his or her progress within an average group in the class, he or she is discontinued from the RR program (Clay, 2005a).

**Model of domain learning.** The MDL is a multidimensional, multistage model of expertise theoretical learning model that acknowledges the interaction of knowledge, strategic processing, and interest, and learning strategies within academic domains (Alexander et al., 1995).

**Domain knowledge.** Domain knowledge refers to the breadth of one’s subject-specific knowledge (Murphy & Alexander, 2002). I defined the domain knowledge of RR teachers as consisting of a broad understanding of teaching literacy to young students.

**Topic knowledge.** The term refers to the depth of one’s knowledge about domain-specific concepts or procedures (Alexander, Schallert, & Hare, 1991). I defined RR topic knowledge as the knowledge of Clay’s (1993) (a) assumptions and theoretical principals that undergird the theoretical foundation of early literacy learning; (b) knowledge of the tools used for observing, selecting, and monitoring RR students; (c) knowledge of the elements that comprise the RR framework; and, (d) knowledge of child
and literacy development related to young readers who struggle to learn in school contexts.

**Situational interest.** Situational interest refers to an appealing, momentary influence of an activity on individuals in a particular context and at a particular moment (Hidi, 2000).

**Individual interest.** Individual interest is described as the enduring interest that individuals bring with them into learning environments (Alexander, 2003; Hidi, 1990).

**General interest.** General interest is interest that is invoked to learn broad domain related concepts and practices (Alexander, 2003).

**Professional interest.** Professional interest is characterized by sustained, goal-oriented interest in specialized topic knowledge (Alexander, 2003).

**Strategic processing.** Such processing entails the learning strategies employed to capture and retain information or regulate and monitor performance (Alexander, 2003).
CHAPTER II: REVIEW OF THE LITERATURE

The purpose of this chapter is to provide a review of literature related to the learning and expertise development of RR teachers, and to locate frameworks for studying expertise development in RR teachers. In the first section of the literature review, I describe RR as a context for expertise development in teachers, and summarize the core components of RR theory and practice. I review studies of RR as an instructional model for teacher learning and of evidence RR teacher expertise. I then note the gap in the RR teacher-expertise literature related to a dearth of the use of cognitive frameworks specifically designed to model the development of expertise. In the second section of the literature review, I explore Alexander’s (1997, 2003) Model of Domain Learning (MDL), which explains a stage-based progression towards expertise in an academic domain such as RR. The MDL explains how an individual’s interests, knowledge, and strategic processes, change as he or she progress towards expertise in an academic domain such as RR. Further, I explain the MDL in relation to its components of interest, knowledge, and strategic processing and demonstrate why the model may provide insight into previous under-conceptualized cognitive aspects of the expertise development of RR teacher learning. I then discuss the components of the MDL as they are aligned with research on learning to teach reading. Finally, I summarize the chapter, and present a rationale for using the MDL as a lens to examine the manifestation of expertise among RR teachers.

RR as a Context for Expertise Development

The RR instructional model for teacher learning is based on an inquiry approach, and rooted in the traditions of social constructivism (Alvermann, 1990). Social
constructivism researchers tell us that knowledge is “constructed when individuals engage socially in talk and activity about shared problems or tasks” (Driver, Asko, Leach, Mortimer, & Scott, 1994, p.7). That is, individuals make meaning through dialogue, and learning is guided by more-capable others (Driver et al., 1994). The RR instructional model is an approach that is both exploratory and collaborative with the goal of helping teachers develop new knowledge of teaching and learning, consider their ideas within their daily context, and build personal theories of literacy teaching and learning (Schmitt, et al., 2005). The notion of RR teacher expertise can be considered in light of knowledge building in process, meaning expertise is continually developing as teachers collaborate, practice, and refine their personal theory. RR teachers are noted for their expertise and success in working with struggling early readers (Klein, Kelly, & Pinnell, 1996; Lyons, et al., 1993). RR teachers are viewed as engaging in ongoing expertise development with regard to teaching reading that differs from traditional classroom teachers (Cox & Hopkins, 2006; Roskos, Boehlen, & Walker, 2000). Clay (1985) suggested that effective teachers who work specifically with struggling young readers focus on the needs of individual children and design lessons that will accelerate their progress. She stated:

It is not enough with problem readers for the teacher to have rapport, to generate interesting tasks and generally to be a good teacher. The teacher must be able to design a superbly sequenced program determined by the child’s performance, and to make highly skilled decisions moment by moment during the lesson (p. 53).

RR is a model of instruction deemed successful by researchers for both teachers and students (Homan, King, & Hogarty, 2001; Lyons, et al., 1993; Rodgers, 2002). RR
teachers learn to do that with guided practice and support from TLs, as well as from their RR colleagues, and through the use of a structured program of learning that includes one year of training followed by ongoing education and development. According to DeFord, Lyons, and Pinnell (1991) RR teachers meet weekly, in sessions typically held after school, for a year of training, and for ongoing professional development for as long as they are RR teachers. They receive six semester hours of graduate course credit for that training year. Typically, RR teachers should have at least three years of primary teaching experience before they participate in the program, but that is not always the case. A RR teacher’s year of training begins with a 30-hour summer workshop that he or she attends prior to the start of the school year. During their training year and their ongoing education and development, RR teachers instruct four children in daily one-to-one, 30-minute tutoring sessions. Throughout the training year and beyond, the TL and RR colleagues observe and supervise the development of RR teachers’ practices, and provide constructive feedback through the use of Behind the Glass presentations and home site observations. Additionally, throughout their training year and during their ongoing education and development, RR teachers develop a common language by reading and continuing to refer to common texts: *The Observation Survey of Literacy Achievement* (OS) (Clay, 1993), *Literacy Lessons Designed for Individuals Part One: Why? When? and How?*, and *Literacy Lessons Designed for Individuals Part Two: Teaching Procedures* (Clay, 2006). The goal of RR teacher training and ongoing professional development is to improve the teaching of at-risk readers by developing teachers (DeFord, et al., 1991).
The RR instructional model for teachers and students was designed by Marie Clay (1979, 1985) to assist children in first grade experiencing difficulty learning to read and write, and to educate and develop highly skilled, deeply knowledgeable teachers who have the capacity to improve outcomes for those students. Clay (1979, 1985, 1993, 2001) conceived of the learning for teachers and students to be an interrelated process in which the learning and development of one influences the learning and development of the other. Thus, similar to the safe, supportive environment RR teachers seek to provide students, the RR instructional model for teacher learning also seeks to provide a safe, supportive environment conducive to risk-taking for teachers. For teachers, RR seeks to develop that supportive environment by providing a continued, open, and trusting collaboration among university- and school-based educators and personnel (Lyons & Pinnell, 1999). The support structure consists of university-supported RR supervisors, specially trained TLs, access to the larger RR community, and experiences and activities embedded in practice, all of which facilitate the learning and acquisition of new knowledge and skills (Lyons & Pinnell, 1999; Pinnell, 2002). The education and development of RR teachers is experiential and connected to practice so that teachers are engaged in the teaching process as they learn (Askew, et al., 2002; Lyons, et al., 1993; Pinnell, 2002).

Central to the RR teacher learning process is the use of ongoing dialogue (Allington, 2006; Combs, 1994; Johnston, Allington, Guice, & Brooks, 1998; Lyons, et al., 1993). The instructional model of RR provides teachers with opportunities to read and discuss common texts, to talk about their teaching with teacher leaders and peers, to
construct hypotheses, and share problem-solving techniques with particular children in mind. While engaged in such dialogue, RR teachers have the opportunity to confirm or support a hypothesis with ongoing feedback, evaluate what works, and reflect on why it works (Askew & Gaffney, 1999; Lyons & Pinnell, 1999; Lyons, et al., 1993).

Researchers have pointed to data related to RR teachers’ conversations with colleagues about their teaching, what they choose to do with their students, their reflections and analyses of their learning, and discussions about theory and practice as evidence of how RR teachers learn, test new concepts, build theories about teaching, and experience a shift in their thinking and beliefs about teaching (Askew & Gaffney, 1999; Lyons & Pinnell, 1999; Lyons, et al., 1993; Rodgers, 2002).

Children are deemed eligible for RR if they are identified by their classroom teachers, often in conjunction with a building RR teacher or literacy specialist and in accordance with student performance on the OS of Literacy Achievement. If identified and taken as a RR student, he/she will be provided a short-term, individually designed instructional program created and taught by an RR teacher. Clay (2002) suggested that model allows RR students to succeed before they enter a cycle of failure. Daily RR lessons consist of reading and writing experiences designed to facilitate each RR student’s development of strategies for literacy acquisition. Instruction continues until children can read at or above the class average and can continue to learn with little remedial help. Typically, RR teachers teach each RR student a series of daily, 30 minute, one-to-one lessons for an average of 12 to 20 weeks. At the end of the series of lessons, it is hoped that children have developed a self-extending system, and are able to use a
variety of strategies to read increasingly difficult texts, and to independently write their own messages (Clay, 2007; Klein et al., 1996; Lyons, et al., 1993). If RR students reach the reading level of the average student in their classes, then the RR student is discontinued, and deemed able to continue learning with classroom instruction and some additional support. If RR students do not meet the achievement requirements of reading with the average of their classes after 60 lessons, students are dismissed from the program, but not discontinued (Deford, et al., 1991). That is, other interventions, such as special education services, are explored for students who are dismissed. Dismissed students did not reach the average reading level of their class as opposed the discontinued students who leave the program reading within same levels as the majority of their classmates.

A student’s progress relies on the RR teacher’s ability to notice and understand nuanced student responses to instruction, and on that teacher’s ability to assist that student at the optimal instructional moment in acquiring the strategies necessary for successful problem solving of the text. Vygotsky (1978) characterized that type of instruction as working with the student within his or her Zone of Proximal Development (ZPD). Working within the ZPD requires the RR teacher to continuously make real-time instructional decisions based on her knowledge of reading, of reading instruction, of the particular student, and of the situated context (Cox & Hopkins, 2006). To that end, the RR instructional model is designed to develop teacher practice and sustain ongoing teacher-learning of topics related to early reading and writing, of child development, and of the importance of the rapport and relationship between student and teacher (Clay,
1993, 1997, 2007). RR practice is based on four assumptions and seven theoretical principles about the nature of reading, teaching, and learners (see Table 2.1). RR advances a foundational theory for RR teachers, accompanied by continuous learning opportunities embedded in practice to provide teachers an opportunity to develop their own theory about how children learn literacy knowledge and skills.

According to Schmitt et al. (2005), Clay’s early research into how children learn literacy led her to theorize that children learn literacy knowledge and skills over time, in individual ways, and at individual rates. Clay also theorized that reading is a problem-solving process, and children must integrate multiple sources of information to gain meaning from text. Additionally, Clay proposed that students learn to read and write concurrently, and that reading and writing are interrelated processes that influence each other, and that students learn literacy through a number of experiences and modalities (Schmitt et al., 2005). Further, Clay (1993) posited that if students do not make adequate progress in early grades, it is important to intervene and offer accelerative learning opportunities and experiences before they fall further behind. As such, students follow their own literacy-learning journey leading to interventions that must be customized for each RR student. Systemic observation of each student is critical to the individualization and customization of interventions. Those individualized interventions within lessons should be based on RR students’ strengths rather than their deficits (Clay, 1993). As Clay (1993, 2001) posited, learning to read should be based on a student’s existing repertoire of knowledge and skills. Moreover, Clay (2001) argued that students who make progress more slowly than their first-grade peers are in danger of falling further behind, and of not
being able to catch up. Thus, the need for an accelerative program is a necessity.

Acceleration depends on how well an RR teacher plans for and makes instructional decisions based on her/his observations of RR students’ capacity for learning to read (Clay, 1993).

Table 2.1 RR Assumptions and Theoretical Principals (Schmitt, et al., 2005)

<table>
<thead>
<tr>
<th>RR Four Assumptions</th>
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</thead>
<tbody>
<tr>
<td>1. Reading and writing are learned behaviors.</td>
</tr>
<tr>
<td>2. Systematic observation informs teaching.</td>
</tr>
<tr>
<td>3. Building on a child’s strength’s makes learning easier.</td>
</tr>
<tr>
<td>4. Accelerative learning critical to success for those falling behind.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RR Theoretical Principles</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reading</strong></td>
</tr>
<tr>
<td>…is a complex, problem solving process.</td>
</tr>
<tr>
<td>…and writing are reciprocal, interrelated processes.</td>
</tr>
<tr>
<td>…is a continuous process of change over time.</td>
</tr>
<tr>
<td>…involves a process of reading and writing continuous text.</td>
</tr>
<tr>
<td><strong>Children</strong></td>
</tr>
<tr>
<td>…come to literacy with varying knowledge.</td>
</tr>
<tr>
<td>…take different paths to literacy learning.</td>
</tr>
<tr>
<td>…construct their own understanding.</td>
</tr>
<tr>
<td>…take different paths to literacy learning.</td>
</tr>
</tbody>
</table>

**RR Framework and Tools**

RR student lessons are structured by a framework and several tools to assist the teacher in implementing the lesson to best meet each child’s immediate reading needs.

Table 2.2 details the RR lesson framework and the RR tools used for each lesson component. The RR framework and RR tools are designed to allow RR teachers to
scaffold the learning of each RR student. Clay and Cazden (1990) described the process of helping children do things that are nearly within their reach as providing a scaffold for children so that they can work within their ZPD (Vygotsky, 1978). Scaffolding involves reaching the child at his/her level, providing just the right amount of help for continued learning, then gradually removing the help as the child becomes more independent with the new skill (Bruner, 2000). Pinnell (1997) stated that the RR instructional model’s predictable, flexible framework, and tools that promote collection and analysis of observational data and conducting careful record keeping, are necessary to customize the scaffolding each RR student.
### Table 2.2 RR Framework and Tools

<table>
<thead>
<tr>
<th><strong>RR Framework</strong> (lesson components)</th>
<th><strong>RR Tools</strong> (for observation, monitoring, instruction)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before and After series of lessons: Identification of students for RR, and discontinuation or dismissal from RR.</td>
<td>The OS of Literacy Achievement includes:</td>
</tr>
<tr>
<td>OS of Literacy Achievement:</td>
<td>- Leveled text reading</td>
</tr>
<tr>
<td>• Before lessons to identify and gain knowledge about RR students.</td>
<td>- Letter identification</td>
</tr>
<tr>
<td>• After lessons to determine discontinuation or dismissal of a RR student.</td>
<td>- Word list</td>
</tr>
<tr>
<td>Daily Lesson Record</td>
<td>- Concepts about print,</td>
</tr>
<tr>
<td>Blank running record sheets</td>
<td>- Word writing, and</td>
</tr>
<tr>
<td>Leveled texts for student’s lesson</td>
<td>- Dictated sentence</td>
</tr>
</tbody>
</table>

**During each RR student lesson:**
Each component lasts approximately 10 minutes.

**Familiar Books:**
Rereading of familiar texts (about 3) as a warm up to the lesson, followed by rereading of yesterday’s book. RR teacher takes a running record.

**Writing:** Making and Breaking—work with sounds and letters in isolation—break words into parts

**Sentence Writing:** Compose sentence collaboratively. Write sentence collaboratively.

**Problem-solve words according to analogous features.**

**Cut up sentence:** Create and reconstruct cut-up sentence according to student focus from writing component.

**Introduction of New Book:**
- RR teacher provides one or two sentence synopsis of the new book.
- RR teacher and student examine and discuss pictures.
- RR teacher introduces and teaches unfamiliar text structures and vocabulary.
- RR student reads the new book with help. The new book becomes the next lesson’s running record

Each component lasts approximately 10 minutes.

**Magnetic Letters**
**White Board**
**Other materials implemented include:** sand or salt on a cookie sheet, Magnadoodle, or water and a paintbrush on dark surface.

**Observational records of writing**
**Writing book**
**Elkonin Boxes**
**Cardboard Strip**
**Envelope**
**Marker**
**Scissors**
**New RR text**

**Daily lesson record notes**
**RR Framework**

The 30-minute lesson moves very quickly and uses a framework divided broadly into three 10-minute sections: Familiar Reading and Running Records, Writing, and Introducing a New Book (Homan, et al., 2001). The first section is dedicated to the reading of familiar books, during which the RR teacher takes a Running Record assessment of the book introduced the previous day. Writing, the second 10-minute section of the lesson is focused on exploring letter features, word parts, the construction of words, and writing fluency. The activities in the section emphasize the process of noticing and using letter-sound relationships, breaking down the sounds in the words, and reconstructing them. During that section, RR teachers and students engage in the use of magnetic letters (among other materials) and in the process of shared writing of continuous text recorded in the student’s writing book. Throughout the 10-minute Writing section, the RR teacher encourages the student to write his/her own sentence so that the student learns how to create his/her thoughts onto the paper. The final 10-minute section is dedicated to the introduction of a new book, the book given to the students to read for the running record the following lesson. The teacher and the child begin this section of the lesson by looking at and discussing the pictures in the entire book, known as a picture-walk. As they look at the pictures, students talk about what is happening in the story, make predictions, learn new text structures, and learn some of the challenging vocabulary in the story (Pinnell, Fried, & Estice, 1990).
RR Tools

Clay (1979, 1991, 2001) suggested that RR teachers must learn to observe and adjust instruction to meet the needs of the student at all times. When teachers carefully document observations of their students, they clearly show what each student already knows how to do. With this knowledge, teachers can work with children from where they are and build upon their knowledge and skills, and through guidance and scaffolding, increase their level of reading proficiency (Clay, 1991). As such, RR teachers must develop knowledge of the observation, selecting and monitoring tools to facilitate their ability to notice nuanced and idiosyncratic student behavior and to respond in flexible and adaptable ways with intervention strategies tailored to particular students’ strengths or needs. These tools include the OS, running records, daily lesson record, writing book, and weekly record of written words and book levels.

OS. RR teachers become skilled users of the OS to assess the strengths and needs of beginning first grade students. The OS encompasses tasks of letter identification, a word test, concepts about print, writing vocabulary, hearing and recording sounds, and an evaluation of text reading, and is used by RR teachers to identify RR students for the program, to assess and evaluate RR student progress when needed throughout the series of lessons, and to assess RR students’ achievement after the delivery of lessons.

Running records. Because they are assessing a student’s reading performance on continuous text, RR teachers also gain knowledge of how to use a running record to analyze a student’s miscues on continuous text. Analysis of the running record involves knowledge of the complex, problem-solving process of early literacy learning. RR
teachers develop knowledge of the three-system cueing process that young readers use to understand continuous text: meaning, semantic, and visual cues. By taking running records at set points within a lesson, and at given times throughout a child’s RR program, RR teachers gain ongoing assessment information to make teaching decisions in real time, and to assess progress of a student as he or she tackles more difficult tasks.

**Daily lesson record.** RR teachers keep a daily written record of the RR lesson. It incorporates notations related to teacher decisions and moves along with student responses, accompanied by evidence of student behaviors. It also includes reflective notes written by the RR teacher about the direction of the next day’s lesson and the next moves for the student. Running record scores and analysis are recorded daily so progress over time can be monitored.

**Writing book.** The writing book is an interactive writing journal in which the student and RR teacher write each day. One page each day is used for writing continuous text. The facing page is used for working out tricky parts of words related to that continuous text. The writing book provides a record of a student’s written vocabulary, developing sentence complexity, possible links a RR teacher could make to future texts, and changes over time.

**Weekly records of written words and text levels.** RR teachers develop knowledge about how to use a weekly record of the words a student can write without any intervention, and the level of text a student can read independently with fluency.

The documented success of RR and the success of the RR student are dependent on the unique lesson designed by a specially trained RR teacher who has developed a
level of deep and rich conceptual knowledge and possesses a high level of skill (e.g. Askew & Frasier, 1994; Center, Wheldall, Freeman, Outhred, & McNaught, 1996; Clay, 1993; D’Agostino & Murphy, 2004; Deford, Pinnell et al, 1994; Gibson, 2010; Iverson & Tunmer, 1993; Lyons & Pinnell, 1999; Quay, Steele, Johnson, & Hortman, 2001; Schwartz, 2005).

**Evidence of RR Teacher Expertise**

Researchers have documented the positive influence of ongoing RR teacher professional development on the effectiveness of its ability to change teachers’ instructional practices in other contexts (Askew, Fulenwider, Kordick, Scheuermann, Vollenweider, Anderson, & Rodriguez, 2002), on school-wide effectiveness (Burroughs-Lange & Douetil, 2007), on teacher decision-making (Roehrig, Pressley, & Sloup, 2001; Lyons, 1994), on the use of questioning practices (Lyons, 1993), on the potential for teacher change (Power & Sawkins, 1991) and on teachers’ knowledge about literacy learning and development (Gibson, 2010; Lyons, et al., 1993). In this section I highlight empirical literature that evidences the expertise of RR teachers.

Burroughs-Lange and Douetil (2007) compared children’s literacy progress in 42 urban schools with similar demographics (e.g. high percentages of students with below age norms in literacy achievement), across the year in which the children reached their sixth birthday. An analysis of variance test was used to compare four groups of children (1) those who received RR during the school year, (2) those who were in schools with RR, but did not receive RR during the year, (3) those who were in schools without RR, and received other interventions during the year, and (4) entire first-grade classrooms of
children in schools with RR and children in first grade classrooms in schools without RR. With regard to the influence of RR teacher expertise on the wider school context, Burroughs-Lange and Douteil found that in schools with RR, the lowest-achieving children who were unable to be placed in the intervention within a year of their study made greater progress in literacy than the lowest achieving children in schools without RR. Students who received the full implementation of the RR program in schools with RR made the most significant gains among all groups. The authors posited that the increase in student literacy achievement may be related to the influence of the RR teachers’ expertise, and argued that RR teacher expertise should be further explored.

In their observation of teachers with various amounts of RR training teaching in 10 regular classrooms (three kindergartens, five first grades, and two second grades), Roehrig, et al., (2001) contended that the effects of RR training were not only long-lasting and effective, but that the quality and quantity of RR training appeared to matter in how effectively and adaptively teachers utilized RR strategies for instruction. Teachers in the study varied in their amount of RR training in that six of the teachers completed the required year-long training, and had three or more years of subsequent follow-up sessions before returning to the regular classroom, while four teachers had attended RR in-services, but were not fully certified RR teachers. In their first observations, the authors identified 66 practices and strategies commensurate with RR principles that RR-trained teachers used in regular classrooms. The 66 were coded, categorized, collapsed into 29, and a questionnaire was created in which the Roehrig, Pressley, and Sloup asked the teachers to answer whether they did or did not engage in specific practices consistent
with RR in their regular classroom instruction. The researchers conducted continued observations of teacher practice to assess whether teachers appeared to be engaging in the practices that are central to RR.

Roehrig et al., (2001) argued that the six fully certified RR teachers not only taught in ways that were consistent with RR, but were using the actual strategies of RR in their regular classrooms. It appeared that RR training had been a generative experience, and the teachers had developed the ability to adapt their expertise with RR practices in a one-to-one tutoring context to meet the needs of a classroom of students. The ability to adapt one’s knowledge and skills to widening contexts is a hallmark of expertise (Berliner, 2000). Roehrig, Pressley, and Sloup also suggested that the four teachers who experienced RR as an in-service workshop, but were not fully certified, did not employ RR practices and principles in their classrooms with regularity or with effectiveness. Thus, it seems that the development of RR teacher expertise, especially the type of expertise that is adaptive, may stem from the learning experiences and opportunities embedded within the RR instructional model of teacher learning.

The RR instructional model is based on the assumption that teachers construct personal theories of learning, and that they refine those theories based on observations and interactions with students (Clay, 1993, 1995). They continue to refine their theory as they observe hundreds of cases while collaborating with and guided by other RR teachers and an RR teacher leader. Gibson (2010) examined how RR teachers articulated their theory and knowledge with regard to phonological awareness, strategies for word identification and comprehension as participants in RR. Using a narrative analysis of the
instructional reasoning that undergirded 20 RR teachers’ narrative responses to retrospective interview questions concerning a first-grade student’s intervention program, Gibson (2010) sought to analyze how RR teachers understood and utilized knowledge pertaining to specific topics of literacy learning. Prior to conducting the interviews about the first-grade students’ intervention program, Gibson (2010) developed standards-based rubrics for each of the topics: phonological processing, strategies for word identification and comprehension. The rubrics were reviewed by five literacy researchers at four universities and revised accordingly. Each component related to each topic was rated on a scale of one (very limited knowledge to five (strong knowledge). Interview responses were coded using the rubric standards. Gibson (2010) posited that RR teachers loosely fell into three categories with regard to phonological processing, strategies for word identification and comprehension. RR teachers’ knowledge was characterized as limiting, applicative or expert. Gibson (2010) identified limiting as the teacher’s knowledge appearing to “restrict her ability to help students gain full use of important conceptual understanding” (p. 11). She went on to describe applicative as knowledge “sufficient in support of persistent teaching for an important aspect of reading development” (Gibson, 2010, p. 11). Expert was characterized as providing “detailed instructional solutions for a range of specific, hard-to-remediate difficulties” (Gibson, 2010, p. 11). Gibson (2010) also suggested that RR teachers related the topics of phonological processing, strategies for word identification and comprehension to writing tasks, and that they indicated their knowledge and use of procedures and content outside of the scope of RR.
Gibson (2010) attributed RR teachers’ expertise development to their active engagements with the structure and context of the RR instructional model. However, the author offered no explanation why 55 percent of the participants were at the applicative level with phonological processing, and 45 percent of the participants were at applicative level with word identification and comprehension. Conceivably, if all RR teachers were engaged in the same ongoing professional development, then an analysis of why some RR teachers appeared to have gained more expertise than others may be warranted.

**Gaps in the RR Teacher Development Literature**

It appears from the aforementioned studies that RR teacher expertise should be further explored. It seems that RR teachers may develop expertise as a result of the learning experiences and opportunities embedded within the RR instructional model, and from their interactions with those experiences and opportunities. Moreover, there seems to be a difference among RR teachers in their expertise development, and that difference may be due to a number of reasons, but what those reasons are is under-explored. Additionally, what remains to be understood is *how* expertise manifests within the context of the RR instructional model. While it appears that the social constructivist nature of the structure and organization of the instructional model supports their ongoing learning, the cognitive aspects of RR teacher expertise development are not fully explored.

Researchers have noted the difficulties with describing the learning process of RR teachers within the RR instructional model due to its complex nature (Stahl & Hayes, 1997). The complex process of collaborative learning in context using observations of
hundreds of cases to refine and enhance theory has proven difficult for even RR teachers to describe (Stahl & Hayes, 1997). Researchers (e.g., Stahl & Hayes, 1997), however, have conjectured about the key elements of RR expertise development. Stahl and Hayes (1997) suggested that the observation of a multitude of cases, engagement in acts of collaboration, aspects of assisted learning, and the use of a common language may be the key factors to the development of RR teacher expertise.

Similar to other researchers, Stahl and Hayes (1997) adopted a sociocultural framework when examining RR teacher learning. As previously noted, RR was conceived as a model of sociocultural learning related to the work of Vygotsky (1978). Thus researchers often adopt similar sociocultural frameworks with which to examine the learning of RR teachers (e.g. Clay, 1993; Gibson, 2010). This emphasis on sociocultural frameworks as an organizing aspect of RR research somewhat limits what we understand about RR teacher from a more-cognitive perspective.

Further, RR scholars believe that ongoing teacher learning and development is key to its success (Schmitt, et al., 2005). However, there still exists a difference in expertise development among RR teachers, which may mean their cognitive or affective engagement with the instructional model differs. Understanding aspects of cognitive and affective engagement of RR teachers with the sociocultural RR instructional model might help us understand more about the complex nature of RR teacher expertise.

**Model of Domain Learning: A Cognitive Theory of Expertise**

Alexander and colleagues (1995) proposed the Model of Domain Learning (MDL) to help conceptualize learning in academic domains as a process encompassing
cognitive and affective factors, and to explain the factors’ interactive influences on learning. When viewed through the lens of the MDL, learners’ development in a particular domain can be characterized as a cumulative and continuous process of transformation typified by the multidimensional interplay among interest, knowledge, and strategic processes deployed throughout each stage of learning: acclimation, competency, and proficiency (Alexander et al., 1995). In other words, the interplay among interest, knowledge, and learning strategies unique to a domain acts as a mechanism that advances a learner from an acclimated stage toward proficiency or expertise. Thus, the progression through the stages is continuously influenced by that interrelationship of knowledge, strategic processing, and interest (Alexander, et al., 1995, Alexander et al., 1998; Alexander et al., 2004). In the present study, I first utilized the MDL as an analytical tool to describe each component of interest, knowledge, and strategic processes of these RR teachers as evidenced in the data. I then applied the MDL framework to examine the interaction of the three components between two demographically similar participants with differences in their expertise development.

**Interest**

The MDL conceives of interest as an affect component related to motivation. Interest-based motivation theory suggests that interest arises as individuals interact with the environment (Hidi, 2000). The MDL conception of interest brings to mind a psychological state that involves focused attention, increased cognitive functioning, persistence, and affective involvement (Hidi, 2000). Researchers studying interest within educational contexts (Hidi, 2000) have demonstrated that interests can attract learners to
particular learning tasks, increase engagement time on task, improve capacity for
knowledge, and enhance achievement.

**Interest in the MDL.** In the MDL, Alexander (2003) proposed that interest is a
key component of expertise development (Krapp, Hidi, & Renninger, 1992). Interest can
be characterized by level as either situational or individual. Situational interest is viewed
as interest that is sparked by events in the moment and is often fleeting. Individual
interest is described as the enduring interest that individuals bring with them into learning
environments (Hidi, 1990) and can be further specified by form: general or professional
(Alexander, 2003). General interest is a form of individual interest that is invoked to learn
broad domain related concepts and practices. For instance, classroom teachers’ interest in
learning about a developmental spelling program for their grade level would be
characterized as general interest. Professional interest is characterized by sustained, goal-
oriented interest in specialized topic knowledge (Alexander, 2003). Further, Alexander
(1995) suggested professional interest is demonstrated by individuals sharing and
influencing knowledge of the field such as presenting at professional or research
conferences. For example, RR teachers’ interest in topic knowledge related to the RR
framework, tools used to monitor, assess, and observe as well as aspects of RR theory,
and how they engage in dialogue with each other and the TL could be characteristic of
professional interest of RR teachers. This conception of professional interest for RR
teachers is based on their involvement with a continuous cycle of data collection and
analysis, hypothesis generation, and sharing of strategies and techniques. Recent cross-
sectional evidence supporting the MDL suggests that individuals begin with high levels
of situational interest and low levels of personal interest and that as they progress toward expertise situational interest decreases and personal interest increases (Alexander, 2005). However, little attention (empirical or theoretical) has been given to shifts in general and professional interest.

**Interest in RR.** In accordance with the MDL, Alexander et al. (1998) suggested that interest interacts with the level of strategic processing; in that a learner enacts deeper level-processing concurrent with heightened levels of interest (e.g. individual interest is related to deeper level strategic processing). That interaction influences the expansion and enhancement of topic knowledge. Hence I conjectured that RR teachers could express situational interest in a colleague’s student during a Behind the Glass presentation, but that situational interest may transform into individual interest as they enact strategic processing to garner and deepen their topic knowledge during the session and during the ongoing discussion. That increased individual interest may lead to the enactment of deeper levels of strategic processing, which may interact with enhanced topic knowledge and further develop and expand their topic knowledge for RR instruction. However, my analysis of data revealed that when working with practicing professionals the influence of situational interest may be less influential, and a shift is more about a narrowing of general interest into professional interest, and that a narrowed professional interest may influence RR teachers’ depth of knowledge and the types of strategic processing in which they engage. That interaction may be related to what RR researchers characterize as shifts in understanding (Klein, et al., 1996).
Knowledge

Knowledge has been defined in the behavioral tradition as agreed-upon objective, definable, measurable facts (Nespor, 1987). However, cognitive theorists have argued that knowledge should be thought of as “an individual’s personal stock of information, skills, experiences, beliefs, and memories” (Alexander, et al, 1991, p. 317). Further, social constructivist views of knowledge posit that individuals construct knowledge through collaborative, active processes and that participants must take part in shared experiences that become catalysts for dialogue, reflection, and learning (Lyons & Pinnell, 2001). Knowledge then is dynamic and personally meaningful to individuals. The MDL posits that knowledge exists in a variety of overlapping forms. RR suggests that those overlapping forms of knowledge are constructed and refined within social contexts.

Knowledge in the MDL. Researchers understand knowledge within the MDL as existing in a variety of forms that interact and overlap with each other (Alexander et al., 1995; Alexander et al., 1998; Alexander et al., 2004). Further, knowledge is viewed as a dynamic entity, possessing the ability to develop and change when interacting with factors of strategic processing and interest (Alexander, et al., 1990; Alexander, 2003). The interaction among and between forms of knowledge and other components is perceived as a mechanism that promotes the development of expertise, i.e., learning. For the purpose of this study, I highlight two forms of knowledge salient to teaching reading, domain knowledge and topic knowledge.

Alexander and colleagues described domain knowledge and topic knowledge as central to development in the MDL. Domain knowledge is viewed as encompassing the
content and concepts unique to an academic domain (e.g. the domain of teaching or psychology). Topic knowledge is recognized as the knowledge of specific topics unique to that domain (e.g. the topic of teaching early reading or of social cognitive theory).

Because the MDL was first conceived to explain expertise development within academic domains that privilege learning from texts, much of the domain and topic knowledge is discussed in terms of knowledge of academic content as garnered through texts, such as biology and educational psychology (Alexander et al., 1995; Alexander, et al., 1998).

The MDL has also been used to explain expertise development in the academic domain of reading in which problem solving of text, that is the ability to engage in the use of multiple strategies related to the integration of meaning, semantics, and graphophonetic (visual and aural) interpretation, to comprehend continuous text, is seen as both content and learning (Alexander & Fox, 2004). For example, in emergent readers, domain knowledge refers to the breadth of knowledge about reading (e.g. relationship between print and message, relationship between picture and text, how to physically interact with text) and topic knowledge refers to the depth of knowledge about topics specific to reading (e.g. principles of phonics and phonemic awareness, text structure, text genres).

Specifically related to teaching as an academic domain, Alexander et al. (2004) employed the MDL to describe the expertise of special educators using a cross-sectional design. Alexander and colleagues indicated the domain knowledge of special educators to be the broad understanding of teaching in general, or what Shulman (1986) calls general pedagogy. Additionally, the authors suggested that special educators had developed topic knowledge unique to special education (Alexander, et al., 2004).
**Knowledge in RR.** For my purposes, I view the domain knowledge of RR teachers as consisting of a broad understanding of teaching reading to young students. As mentioned earlier, as a prerequisite to being trained, typical RR teachers have taught first grade for three years and have demonstrated some proclivity for teaching first grade reading. The participants in my study, however, varied in their classroom experience, with three never having taught in a classroom, and most not having taught first grade specifically. But each participant did have experience with teaching literacy in some form.

I view RR teachers’ topic knowledge as related to their understanding of teaching RR, and more specifically, related to the theory of early literacy development proposed by Clay (1993). RR teachers develop, enrich, and enhance topic knowledge for teaching early reading by participating in the RR model of instruction (Clay, 1993). In Table 2.1, I described RR topic knowledge as the knowledge of the tools used for observing, selecting, and monitoring RR students, knowledge of Clay’s theoretical principles and assumptions that undergird her theoretical foundation of early literacy learning, knowledge of the elements that comprise the RR framework, and knowledge of child and literacy development related to young readers who struggle to learn in typical first-grade classrooms.

**Strategic Processing**

Strategic processing is the enactment of learning strategies or techniques that learners use to solve problems or to enhance achievement (Alexander & Jetton, 2000). In other words, strategic processing refers to ways in which individuals invoke learning
strategies to achieve complex learning goals. Strategic processing helps learners gain and structure knowledge (Armbruster, 2000), enhances learners’ ability to understand and remember knowledge gained from language activity (Pressley, Goodchild, Fleet, Zajchowski, & Evans, 1989), and improves learners’ focus (Winne, 1995).

**Strategic processing in the MDL.** “Strategies are defined as intentional and effortful actions taken when individuals perceive some problem or gap in understanding” (Alexander, et al., 2004, p. 547). In other words, strategic processing refers to the processes individuals employ to learn. Alexander and colleagues suggested that learners engage two levels of strategic processing: surface level and deep level (Alexander et al., 1998; Alexander et al., 1995). With respect to learning from text, surface-level processing consists of initial procedures used to access text (e.g. rereading, paraphrasing), and are usually enacted as learners construct a foundation of domain knowledge. As learners enhance and expand their domain knowledge, and increase the quality and quantity of their topic knowledge, the level of their strategic processing deepens (Alexander, 2005; Alexander et al., 2004; Alexander & Murphy 1998).

In studies of expertise development in domains other than those focused on text-privileged learning, strategic processing has been conceived of in different ways that are commensurate with the target domain. For example, in a study of music therapy students, a list of possible learning strategies for the understanding of music therapy was generated from participants’ strategic processes in which they engaged to recall specific events related to music therapy during a video observation. Strategies included “comparison of yourself to the music therapist” (Langan & Athanasou, 2005, p. 305) and
“analysis of music therapy method” (Langan & Athanasou, 2005, p. 305). The authors suggested that music therapy students used “comparison” and “analysis” as strategic processes to facilitate their recall of observed music therapy events (Langan & Athanasou, 2005).

**Strategic processing in RR.** As stated before, developing expertise in teaching RR students does not solely rely on text-based learning. Teachers utilize a number of learning strategies including participating in observations and engaging in dialogue (a) to learn methods that are enacted to solve problems encountered in practice; (b) to allow them to learn about the students they teach; and (c) to enable them to conceive of materials, methods, students, and goals when making instructional decisions.

I considered the process by which teachers learn and develop expertise in topic knowledge for teaching reading as strategic processing. RR teachers build an internal system of knowledge, or schema, which consists of how young children learn to read, effective teaching methods that support that learning, and specific, particular knowledge of the student being tutored (Klein, et al., 1996). Researchers have posited that RR’s success in development of teachers’ knowledge for reading instruction exists within that highly specific, tentatively held, developing theory that guides the interactions between teacher and student (Clay, 1993; DeFord, et al., 1991; Klein, et al., 1997). Thus, RR teachers’ developing theory is constantly refined by the strategic processes of continuous participation in a cycle of shared observations that are mediated by a common language, and are guided by a more knowledgeable other, the TL or other more knowledgeable RR colleagues (Clay, 1993; Klein, et al., 1996). RR teachers engage in the strategic process
of “sifting and sorting” (Klein, et al., 1996, p. 176) their knowledge within the existing knowledge system. The sifting and sorting is based on the continuous observation and analysis of cases, both strategic processes. The process observation and analysis is honed during Continuing Contact sessions, Behind the Glass presentations, and during the home site observation sessions, conducted by the TL or a RR colleague. Observations are followed by an inquiry-based conversation between an observed RR teacher and the observer or observers. Through those strategic processes, RR teachers develop topic knowledge by learning from each case that is dependent on specific student needs, student responses, and teacher decision-making. Over time, and after participating in the observation of multiple cases, the internal knowledge system, or schema, of a RR teacher becomes more principled and conceptually rich (Klein et al., 1996). Strategic processing of varying levels may manifest throughout the discussion as RR teachers utilize the common language of RR (Clay, 1993), demonstrate awareness of pivotal events in a lesson (Gallant & Schwartz, 2010), or continue to refine theory based on their own and previous cases (Klein, et al., 1996).

I anticipated that strategic processing within the context of RR may be demonstrated by teachers’ deployment of learning strategies as they seek to increase and broaden knowledge of RR topic knowledge during the discussion throughout the Behind the Glass presentation or in other instances of shared learning activities on extending and enhancing RR teacher theory. Those learning strategies may include acts of accessing prior knowledge, continuing observation, engaging in dialogic inquiry, and challenging assumptions.
Stages of Expertise Development in the MDL

Researchers posited that as interest, knowledge, strategic processing interact; learners’ understanding of content expands and becomes more conceptually rich, their development of expertise transforms and progresses along a series of stages identified as acclimation, competence and proficiency (Alexander, 2003; Alexander et al., 1995; Lawless & Kulikowich, 2006; Alexander & Murphy, 1998; Shen & Xu, 2008). Alexander (2000) argued that the stages of the MDL are broad, and that various levels of development are encompassed within each stage, characterized as early acclimation, late acclimation, early competence, mid-competence, and proficiency; although, because development is a continuous process of transformation, it is possible that those stages may be further defined and refined (Alexander, et al., 2004).

**Acclimation.** The initial stage of the MDL is referred to as acclimation. Alexander (2004) described learners at that stage as having a limited knowledge base that is fragmented in its organization. Hallmarks of the stage include a low level of individual interest, the use of surface-level strategic processing, and a limited knowledge base. However, as a learner acclimates to the domain, situational interest increases and motivates the learner to attempt the learning task and engage in continuous cognitive effort (Alexander et al., 1995). For example, RR teachers new to the practice often keep script cards, reminders of strategy questions to ask students, taped to their work table. Such reliance on a physical reminder may indicate that they are not yet fluent with a different way of thinking and are still practicing the common language regarding students and reading instruction.
**Competence.** The second benchmark in expertise development is competence. Described as the most encompassing stage of expertise development in an academic domain, it is signified by qualitative and quantitative transformations in the learners’ knowledge base, strategic application of learning processes, and an increased level of individual interest (Alexander et al., 1998). Hallmarks of competence include enough knowledge for learners to understand the domain structure for the application of an effective repertoire of strategic processing strategies for learning to teach, and early acquisition of an individual interest in the domain (Alexander et al., 2004). As a result of the enhanced relationship between knowledge and strategic processing, a competent learner can demonstrate greater comprehension and better performance in domain knowledge than can a learner in the acclimation stage (Alexander et al., 1998).

Because the development of expertise occurs over a life span, the majority of learners remain in the competence stage. In the beginning stages of competence, learners can distinguish between important and non-important subject-matter knowledge, and possess a richer, deeper domain knowledge base with a wider knowledge of topics. Alexander et al., (2004) posited that as learners become more competent, they experience an increase in individual interest, they employ purposeful and directed strategic processing, and they are able to recall and understand central ideas related to the domain (Alexander, et al., 2004).

It may be that a RR teacher in the early stages of competence could rely heavily on the assessment, selection, and monitoring tools provided by the structure of the RR program (e.g. the daily lesson record) and implement them in different ways. A teacher in
the later stages may be more fluent in the common language that is used to mediate the social interaction during Behind The Glass presentations and Continuing Contact sessions. Moreover, the quality and quantity of participation throughout the Behind the Glass presentation and subsequent continuing contact discussion may differ between teachers in varying stages.

**Proficiency.** The proficiency stage is characterized by the expert application of strategic processing, and the use of individual interest as the primary motivator for engagement in the domain (Alexander, 2005). Proficient learners are goal directed and persistent. Whereas the hallmark of transformation from acclimation to competence is learners’ increased development in domain-knowledge, and in the internalization of interest, the progression from competence to proficiency is related to the concerted transformation among all the dimensions of the model (Alexander et al., 1998). Alexander (2000) argued that hallmarks of proficiency include a learner’s exceptional levels of interest, knowledge, and strategic processing and his/her ability to circumvent barriers to learning. Alexander also suggested that it is unreasonable to assume that learners moving along the continuum of expertise development have the capacity or ambition to attain proficiency or expertise in a domain (Alexander, 2000).

At the proficiency stage, RR teachers may recognize pivotal events that create shifts in their and others’ understanding during the Behind the Glass presentations (Klein, et al., 1996; Pinnell, et al., 1994). They may call attention to the shift in their own understanding or in others’ understanding, thus facilitating the continuous refinement of theory. Using the common language of RR, the proficient RR teacher may also interact
with peers to question the teaching and learning process, create hypotheses, and further continue to refine her own and others’ theory (Gallant & Schwartz, 2010; Pinnell, et al., 1994; Schwartz, Askew, & Gomez-Bellenge, 2007). Proficient RR teachers may be asked to contribute to Continuing Contact sessions in more formalized ways (e.g. present about special topics or lead discussions about areas of special interest), work with classroom teachers in either structured (e.g. coaching) or informal roles, and/or present at RR conferences.

**Learning to Teach Reading Aligned with MDL Components**

To date no studies have applied the MDL to domain of expertise development of reading teachers; however a review of the extant literature on teaching reading from the perspective of the MDL provides some evidence for how knowledge, strategic processing and interest are treated in the field. I first address the studies that spoke to the level of interest teachers employed for learning to teach reading. I then discuss how knowledge is currently conceived of with regard to learning to teach reading. Finally, I examine how research alluded to the strategic processing of teachers learning to teach reading, that is, the processes by which teachers learned the knowledge and skills for reading instruction.

**Interest as motivator related to teaching reading.** Very few researchers attended specifically to aspects of teacher interest or to aspects of motivation generally. However, levels of teacher engagement in professional development programs or school reform efforts, and possible related influences for that engagement were addressed. For example, in three studies, researchers considered whether or not teachers engaged with or learned from school reform efforts or professional development opportunities (Brady,
Gillis, Smith, Lavalette, Bronstein, Lowe, North, Russo, & Wilder, 2009; Gilrane, Roberts, & Russell, 2009; Swan, 2003). Researchers used questionnaires to assess teacher attitude (Brady, 2009; Gilrane, et al., 2009), and observations to evaluate teacher practice (Swan, 2003). Interviews were also used to assess teachers’ level of engagement (Swan, 2003). Findings across the studies were somewhat dichotomous; either teachers implemented the reform framework or curriculum provided by the researchers or they did not. Because researchers ultimately assessed the success of the reform effort on student outcomes (Brady, et al., 2009; Gilrane et al., 2009) or by level of implementation (Swan, 2003), rather than whether teachers had interest in the reform effort or professional development opportunity, the factor of teacher interest remained understudied and nonconsequential to the findings. Findings may be more complex and nuanced if the role of interest in the development of knowledge could be further conceptualized to better understand how to meet teachers’ needs, address their concerns, and facilitate deeper understanding of content beyond disciplinary knowledge.

Knowledge related to teaching reading. The majority of researchers who study knowledge related to the teaching of reading have focused studies on domain, topic, and procedural knowledge [(i.e., knowledge that describes how declarative knowledge is used (Alexander, Shallert & Hare, 19910) of reading teachers. Reading-teacher knowledge is typically assessed as student outcomes (Al Otaiba, Connor, Folsom, Greulich, Meadows, & Li, 2011; Carrekar, Neuhause, Swank, Johnson, Monfils, & Montemayor, 2007; Kennedy, 2010; Mathes, Denton, Fletcher, Anthony, Francis, & Schatschneider, 2005; Podhaski et al., 2009; Gersten, Dimino, Jayanthi, Kim, & Santoro, 2010; Tivnan &
Hemphill, 2005; Jinkins, 2001), and as teacher outcomes (Brady, et al., 2009; Cunningham, Zibulsky, & Callahan, 2009; Moats & Foorman, 2003; Gallant & Schwartz, 2010; Phelps & Schilling, 2004; Shelton, 2010; Socol, 2006; Swan, 2003; Ross & Gibson, 2010). Little attention was paid to the relationship among different types of knowledge in the research. Additionally, there appeared to be a lack of consistent theoretical orientation in how researchers conceived of domain and topic knowledge for reading teachers. Researchers’ lack of theoretical consistency led to limited understanding about what constitutes reading-teacher knowledge and how it develops. Without a more complex and consistent understanding of reading-teacher knowledge, opportunities to systematically enhance and expand that knowledge are also limited.

**Strategic processing related to teaching reading.** As discussed earlier, strategic processing within the academic domain of teaching reading is related to the strategies teachers use to learn to teach. They can be surface level or deep level. Some strategies I identified share characteristics with what Alexander and Fox (2004) would describe as text-based strategies for comprehension because the process of learning to teach reading in some studies entailed teachers reading text and enacting a scripted curriculum. In other words, teachers implemented text-based learning strategies to learn to teach a text-based, prescriptive, reading curriculum.

I identified surface-level strategic processing within the studies as those related to the demonstration of fidelity to a scripted program, describing, rereading, paraphrasing and making hesitant attempts. Comparatively, I saw deep-level strategic processing within the studies as the engagement in critical reflection, metacognition, dialogic
inquiry, and collaboration. Deep-processing strategies also included the use of questioning techniques, interpretation, mindful reading, approximation of practice, repeated observations, and sharing knowledge in professional contexts. By and large, researchers paid cursory attention to the strategic processing of teachers (Carlisle, Cortina, & Katz, 2011; Gallant & Schwartz, 2010; Gersten et al., 2010; Gilrane et al., 2009; Kennedy, 2010; Ross & Gibson, 2010; Shelton, 2010; Socol, 2006). Similar to the research concerning teacher knowledge, most of the literature concerned with the strategic processing was atheoretical and lacked consistent, coherent frameworks from which connections could be made across constructs of knowledge, strategic processing, and interest.

**Summary and Rationale**

Although research in the area of reading teacher expertise exists (e.g. Block, Oakar, & Hurt, 2002; Bos, Mather, Dickson, Podhajski, & Chard, 2001; Carlisle, Cortina, & Katz, 2011; Cunningham, Perry, Stanovich, & Stanovich, 2004; Moats, 2009), there is a paucity of research on the multidimensional nature of how reading teachers learn (Ehri, Dreyer, Flugman, & Gross, 2007; Gallant, & Schwartz, 2010; Gibson, 2010). Additionally, there is a lack of theoretical consistency in the examination of reading-teacher expertise that echoes criticism of teacher expertise research. Generally, there is a lack of developmental models related to the study of teacher expertise (Alexander, et al., 2004; Berliner, 2000) and a lack of sensitivity to domain-specific expertise development (Alexander, et al., 1995; Alexander, et al., 1998; Alexander, et al., 2004). The MDL offers a multistage, multidimensional portrayal of learning and has the potential to be a
powerful tool for the examination of the nature of reading teacher learning within a specific domain (Alexander, et al., 2004; Alexander, 1997).

Researchers using the MDL presume that continued, sustained learning is dependent on the interaction of individuals’ knowledge, strategic processing and interest during each stage of development, acclimation, competency and proficiency (Alexander, et al., 1995; Alexander et al., 1998; Alexander & Fives, 2000; Lawless & Kulikowich, 2006). The model is premised on the concept that expertise does not exist as an apex, but that learning is continued throughout the lifespan of an individual, perhaps most saliently during the stage of expertise. Thus, the proficiency stage does not signal an endpoint, but a qualitatively different stage of learning that is often characterized as expertise (Alexander, 1995; Alexander, 1997). Although the MDL has been utilized to describe the development of teacher expertise in theory (Alexander & Fives, 2000) and in contexts privileging text-based knowledge and strategies (Alexander, et al., 2004), there is a lack of research of the MDL as a tool for the study of teacher expertise development and specifically within the domain of teaching reading.

The primary purpose of this study was to examine the learning and development of RR teachers using a model that considered cognitive aspects of expertise development, the MDL. In particular, this study was designed to explore the relationship between RR teachers’ knowledge, strategic processing and interest and their varied levels of expertise. Further, this study was aimed at how expertise was manifested among RR teachers in terms of their knowledge, strategic processing and interest.
The implementation of a descriptive and analytic framework, such as the MDL, employed in the systematic study of teachers with expertise in teaching reading may illuminate the nature of the expertise development and its relationship to the garnering, expanding, and enhancing of their topic knowledge for reading instruction. The expected interplay among cognitive and motivational factors in learning topic knowledge RR may provide evidence as to the motivational processes provided by the RR instructional model. RR trained teachers are often nominated by supervisors, administrators, and peers as expert reading teachers (Palmer, Stough, Burdenski, & Gonzales, 2005) and may offer an opportunity to observe the multifaceted nature of expertise development for teaching reading. Data from the study may be useful in developing a better understanding the MDL as an analytical and conceptual framework for studying the development of reading teacher expertise. Data may also be helpful in understanding how expertise manifests among RR teachers, and may provide help in designing teacher learning contexts that support expertise development for teaching reading.
CHAPTER III: METHODOLOGY

To complete this study, and address my overarching question concerning the manifestation of expertise in RR teachers, I chose case study methodology, which allowed me to focus on a particular group of individual RR teachers, working in a shared geographic area, receiving their continued professional development within the same context. Stake (1995) asserted that investigating a case could lead to a kind of refined knowledge and understanding of what is being studied. Jensen and Rodgers (2001) noted that case studies provide opportunities to discover new aspects, and can act as a useful enterprise for adding cumulative knowledge to the field. Specifically, I employed the use of instrumental case study. Stake (1995) described an instrumental case study as one used to accomplish something other than understanding a particular situation. An instrumental case study allows a researcher to attempt to provide insight into an issue, help refine a theory, or facilitate deeper understanding of a phenomenon. Stake (1995) suggested that in instrumental case study the case itself is secondary to understanding a particular phenomenon.

The instrumental case may or may not be seen as typical (Stake, 1995). RR teacher training, situated instruction, and ongoing model of professional development is not typical for most teachers in the primary grades. Therefore, manifestation of expertise among RR teachers within the context of RR instructional model of teacher learning is not typical of most teachers. RR is an instructional model of teacher learning is designed specifically to develop RR teachers who operate at high levels of expertise within a specific framework of literacy instruction. RR teachers work one on one with some of the
most struggling young readers in their schools. The participants in this study represented the case aspect of case study. Merriam (1998) described the research method as one “…employed to gain an in-depth understanding of the situation and meaning for those involved” (p. 19).

The instrumental case study method provided me with information of a phenomenon – the manifestation of expertise in a finite number of RR teachers participating in the same Continuing Contact sessions located in a rural northeastern, coastal community. Through this study I attempted to capture the complexity of the varied combinations of multiple interactions among the participants and the participants’ varied and dynamic interplay of interest, knowledge, and strategic processing, as well as the reciprocal influence of those myriad, complex interactions on their development of expertise as RR teachers. I hoped that by conducting this instrumental case study, I would be able to answer my research questions of what the MDL can illuminate regarding the manifestation of expertise among a group of RR teachers and what, if any, components of the MDL need to be more deeply conceptualized.

Site

The pseudonymous MidCoast Elementary and surrounding schools are situated in towns along the rural coast of a large northeastern state. According to City-data.com (2013), the average per-capita income is $21,000 to $29,000 a year. Many of the families, including the teachers’ families, have lived in the area for multiple generations, and make their living from in construction, fishing, and service industries. The populations of the towns swell to double or more in the summer with wealthier second-home residents. The
schools educate the year-round residents who typically live much more modest lives than the summer residents. The property taxes on the summer homes provide the schools with a bit more income than some of their peers around the state, thus providing funds for programs like RR.

The site for this study was chosen because of convenience, necessity, and opportunity. My position as a former RR teacher from the area and my relationship with the current TL afforded me the opportunity to establish a relationship with the RR teachers at MidCoast Elementary. There were two geographically viable Continuing Contact sites, within driving distance to me. My earlier career as a RR teacher and past experience with the TL created a professional and personal relationship with her. Indeed, the TL, who was the TL at both sites, suggested that I conduct my study with her RR group. The TL commented that the group of teachers often felt like they missed out on professional development opportunities enjoyed by the group located closer to the state university, about two hours away. The university, a RR supervisory site, offered a variety of workshops and programs supportive of RR and literacy workshops aligned with RR theory. Professors and researchers often situated themselves in area schools to conduct research. The TL remarked that geographic distance and the funding situation at some of home schools of the participants prevented the participants from taking advantage of those opportunities. Additionally, the university does not ease the process for them. The TL mentioned that the RR teachers at the MidCoast Elementary site might be open to and appreciative of a chance to reflect on their learning and development as RR teachers.
Participants

The participant selection was purposeful. The participant pool of 8 was drawn from the population consisting of the group of 18 RR teachers who attended the Continuing Contact sessions at MidCoast Elementary School and teach in the surrounding schools. I had no stated criteria for participation in the study other than willingness to participate. RR teachers signed consent forms upon presentation of the study in which I noted the demands of the study, their responsibilities, and my responsibilities. Ten teachers initially signed consent forms, two of whom dropped out in December 2014. The data from the two RR teachers who dropped out were not analyzed, resulting in a sample of 8 RR teachers from whom data were collected and analyzed for this study. Observational data were not gathered from the 10 teachers in the group who did not participate in this study.

Patton (2002) suggested that a sample size does not need to be large, and recommended using a purposeful sampling when describing a particular sub-group in-depth, referring to that as a “homogeneous” sample (p. 235). All of the participants were white women, trained RR teachers, and had worked in the same school district for more than 10 years. The sample size, while small (n=8) was well within the norm for qualitative data gathering and analysis.

Seven of the RR teachers in this study taught a typical RR teaching load, one RR teacher taught an atypical load. The seven teachers who taught a typical load provided a 30-minute, daily, one-on-one lesson for four RR students, and taught small groups of Title One literacy and math students. One teacher, Tara, experienced an atypical RR
schedule. She taught a full day’s slate of RR students, providing 30-minute one-on-one lessons to eight RR students each day. The profiles of the participants are presented in descending order of number of years of RR experience, from those RR teachers with the most number of years of RR experience to the those RR teachers with the least number of years with RR experience. The professional demographic data are presented in Table 3.1.

Table 3.1 Professional Demographics of Participants

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Qualifications (Bachelor’s degree) plus additional qualifications/ explanation</th>
<th>Teaching Experience (Classroom) plus additional/explanation</th>
<th>RR Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Courtney</td>
<td>Bachelor’s, Education Master’s, Literacy Certificate of Advanced Studies</td>
<td>4 years-Literacy Coordinator K-5 2 years-Literacy Coordinator 10 years- Supervising Ed. Techs</td>
<td>18 years</td>
</tr>
<tr>
<td>Linda</td>
<td>Bachelor’s English Literature Master’s, English Literature Certificate of Advanced Studies, Doctorate</td>
<td>4 years-University Adjunct 8 years-Principal 2 years-Title One 2 years- OCR State Monitor 4 years-Brian Gym Consultant/Teacher</td>
<td>16 years</td>
</tr>
<tr>
<td>Tara</td>
<td>Bachelor’s, Ecology Master’s, Education ESL certification</td>
<td>1 year first grade teacher 14 years Title One/Literacy interventionist</td>
<td>14 years</td>
</tr>
<tr>
<td>Irene</td>
<td>Bachelor’s Elementary Education</td>
<td>8 years- In classroom 3 years-Ed. Tech 2.5 years-Special Education Ed. Tech</td>
<td>9 years</td>
</tr>
<tr>
<td>Helen</td>
<td>Bachelor’s Education Master’s Special Education</td>
<td>15 years- Title 1 teacher/Interventionist</td>
<td>9 years</td>
</tr>
<tr>
<td>Olivia</td>
<td>Bachelor’s Elementary and Special Education Master’s Special Education</td>
<td>6 years-Family Literacy program</td>
<td>8 years</td>
</tr>
<tr>
<td>Grace</td>
<td>Bachelor’s Education Master’s Literacy</td>
<td>20 years-Regular classroom (second grade)</td>
<td>8 years</td>
</tr>
<tr>
<td>Margaret</td>
<td>Bachelor’s Education M.Ed. in Special Education, CAS in Literacy</td>
<td>13 years-Special Educator 16 years- K-1 multi-age, and mostly first grade</td>
<td>4 years</td>
</tr>
</tbody>
</table>
Courtney. Courtney was the most experienced RR teacher with more than 18 years of experience in RR. During the current investigation, Courtney taught at a K-8 suburban school, and split her time between teaching four RR students and teaching small groups of K-5 literacy and math groups as needed. Prior to becoming a RR teacher, she taught for two years in primary classrooms and spent six years as a K-8 literacy coordinator, supervising K-5 educational technicians for 10 years. In addition to teaching RR, Courtney had trained and become a yoga instructor and had been teaching yoga for 10 years. She made references to how learning and teaching yoga reminded her of learning and teaching RR (Courtney, Interview 1).

Linda. Linda taught RR for 16 years. She retired at the end of the previous school year but was recruited to return to RR teaching for a school with an unexpected RR opening. At the time of the study, she taught four RR students and small K-5 Title I literacy and math groups in a small, rural, K-5 school. Over a long career, Linda had been a principal, a Title One teacher, and a high school teacher prior to becoming an RR teacher. She acknowledged that was a nontraditional route. She did not teach in primary classrooms prior to her training year. The other RR teachers and the TL appeared to venerate Linda, her experience, and her expertise. She remained calm in affect and in manner of speaking and appeared to present an “air of expertise” (Field notes).

Tara. Tara taught RR for 14 years and at the time of the study she taught eight RR students. Prior to becoming a RR teacher, she taught first grade for a year and small Title One literacy groups for one year as an educational technician. She taught at MidCoast Elementary School, the Continuing Contact site. She arranged seating and
technology for each Continuing Contact session and assured that everything was in place for the Behind the Glass discussions at the outset of each observed Continuing Contact session. Tara was often the first and most outspoken during CC sessions. Other RR teachers listened closely to her and appeared to take seriously her questions and statements (Field notes). Specifically, other RR teachers referenced Tara’s ability to use clear, explicit language when discussing RR students (Grace, Interview 1 and Interview 2).

**Irene.** Irene taught in the same, small town school for her entire career, 22 and a half years in primary classrooms, with eight years as a classroom teacher, three years as an educational technician, two and a half years as a special education resource room educational technician, and nine years as a RR teacher. At the time of the study, she taught four RR students and three to four small Title One literacy and math groups, depending on the needs of her school. Irene trained as a RR teacher and waited for 5 years before she could take a position as the RR teacher in her building. She used that time to implement RR practices in her classroom with as many students as possible. She seemed quiet and thoughtful during Continuing Contact sessions, but was more reflective and forthcoming throughout semi-structured interviews.

**Olivia.** Olivia, a RR teacher for eight years, taught four RR students and small Title I literacy and math groups at the time of the study at a small coastal town’s K-5 school. Prior to teaching RR, she spent six years in another state teaching adults and children in a community-based literacy support program that she founded and directed. Olivia sought out research regarding brain development and literacy and was interested in
the relationship between her learning about the brain and her learning about Clay’s theory of literacy learning. Olivia’s busy life included running a summer inn with her husband and shouldering part of the responsibility for aging parents. She spoke quickly, moved quickly, and seemed to make efficient use of her time.

**Helen.** Helen taught RR for seven years, she took a five-year hiatus from RR to become a Response to Intervention coordinator, and returned this year to restart her RR career at a small, rural, coastal school. Prior to becoming a RR teacher, she taught for 15 years in K-5 Title I programs as an interventionist. She tutored individual students and worked with small groups as needed. At the time of the study, she taught four RR students and small Title I literacy and math groups. Helen, very reflective during the interview process, often provided multiple perspectives for the RR teachers to consider during Continuing Contact sessions. She also appeared to be interested in the study on a broader level. She was the only RR teacher who requested research regarding the MDL and asked questions about the study generally.  

**Grace.** Grace had seven years of RR experience and taught four RR students at the time of the study. She also taught small three to four Title I literacy and math groups depending on the need of her small, rural, coastal school. Prior to becoming a RR teacher, Grace taught second grade for 20 years. While she was a classroom teacher, Grace developed a close relationship with the RR teacher in her building. The knowledge Grace gleaned from that relationship influenced her classroom practice and her decision to apply to become a RR teacher. The RR space in which Grace instructs students is full of her own creations for teaching, some from her years as a classroom teacher, and some
developed to promote literacy learning in her RR students. Grace enjoyed sharing her materials and her understanding of RR teacher learning, teaching, and learning. She arrived at her second semi-structured interviews with lists of items to share.

**Margaret.** Margaret was fairly new to RR, only in her 4th year, but a veteran educator with 16 years of teaching in primary classrooms and 13 years as a special educator. At the time of the study, she taught four RR students and small Title One literacy and math groups at a small school in a coastal town. She acknowledged that she reached out to the TL for as many observations as possible and made use of the observation technology, Zoom. Zoom is digital viewing software that afforded the TL an opportunity to observe Margaret’s lessons in real time over the computer. Margaret questioned the other RR teachers and questioned her own practice during Continuing Contact sessions on a consistent basis. She appeared to believe that she was fairly new to the development of her own theory. However, she also realized that development of her own theory depended on her ability to be vulnerable and ask questions.

**Data Collection**

I obtained site consent from the building principal and consent from the RR TL. I met with the 18 RR teachers during their first Continuing Contact session in September at MidCoast Elementary School. Following IRB procedures, I explained the study and the consent forms at the beginning of the three-hour session. I also told the participants that to save time, I had placed a basket with a manila envelope in it next to my computer for teachers to place signed consent forms at the end of the Continuing Contact session. I sent the questionnaires to participants who gave consent over email before the next
session in October and began scheduling interviews to be conducted after October’s Continuing Contact session. Following this, I attended the entire RR group’s four Continuing Contact sessions, and scheduled individual interviews with each participant.

Across the span of October and November, I collected and read the questionnaires, completed the first interview, and conducted the first observation of a Continuing Contact session. The second interview and observations of the second, third, and fourth Continuing Contact sessions were conducted across the span of December, January, and April. Two video clips each lasting approximately three minutes of two RR teachers conducting book introductions were observed during my observation of the first Continuing Contact session. Both RR teachers were study participants, Courtney and Olivia. A Behind the Glass presentation, done by Grace, was observed during my second observation of Continuing Contact session. There were no video clips or Behind the Glass lessons presented during the last two observations of Continuing Contact sessions. One was canceled due to snow. The last Continuing Contact session was scheduled without a lesson. See the data collection details in Table 3.2.

I collected responses to one emailed questionnaire, conducted two semi-structured interviews and completed field notes of four CC observations from October through April. The first interview session and two observations of Continuing Contact sessions were completed from October through December. I completed the second interview session, and third and fourth observation of Continuing Contact sessions from January through April. Questionnaire responses were collected on different dates determined by date of return of the questionnaires by the participants. Most questionnaire responses
were collected following my first observation of a Continuing Contact session. One participant, Linda, emailed her responses on the day of my first observation of a Continuing Contact session.

Table 3.2 Data Collection Details

<table>
<thead>
<tr>
<th>Participants</th>
<th>Round 1 Data Collection</th>
<th>Round 2 Data Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q</td>
<td>VC</td>
</tr>
<tr>
<td>Linda</td>
<td>10-8</td>
<td>10-8</td>
</tr>
<tr>
<td>Olivia</td>
<td>11-7</td>
<td>10-8</td>
</tr>
<tr>
<td>Courtney</td>
<td>10-14</td>
<td>10-8</td>
</tr>
<tr>
<td>Tara</td>
<td>1-2</td>
<td>10-8</td>
</tr>
<tr>
<td>Irene</td>
<td>11-8</td>
<td>10-8</td>
</tr>
<tr>
<td>Helen</td>
<td>10-14</td>
<td>10-8</td>
</tr>
<tr>
<td>Margaret</td>
<td>10-26</td>
<td>10-8</td>
</tr>
<tr>
<td>Grace</td>
<td>11-10</td>
<td>10-8</td>
</tr>
</tbody>
</table>

Q-Questionnaire; O-Observation; PQI/POI #1-Post Questionnaire/Post Observation Interview #1; POI #2-Post Observation Interview #2; VC-Video Clip; BTG-Behind the Glass

I conducted my first observation of a Continuing Contact session on October 8, 2014. That first Continuing Contact session included the presentation of video clips by two of the participants, Courtney and Olivia. I conducted my first post-questionnaire interview and post-observation of a Continuing Contact session interview with three participants, Helen, Margaret, and Grace prior to my second observation of a Continuing Contact session. Following that, I observed the second Continuing Contact session on November 18, 2014, which included Grace’s Behind the Glass presentation. Following my second observation of a Continuing Contact, I conducted the remaining post
questionnaire and post observation of a Continuing Contact session interviews with the remaining participants, Linda, Olivia, Tara, Irene, and Helen. The data collected to that point completed my first round of data collection.

The second round of data collection began with the third observation of a Continuing Contact session on January 19, 2015. The third Continuing Session did not have a video clip or Behind the Glass presentation. Following my third observation of a Continuing Contact session, I conducted post observation of a Continuing Contact session interviews with each of the participants. My fourth round of data collection consisted of the final observation of a Continuing Contact session on April 14. The fourth Continuing Contact session did not have a video clip or a Behind the Glass presentation. The data collected during my third and fourth observations, as well as data collected at the post observation of a Continuing Contact interviews of a Continuing Contact completed my second round of data collection.

As data were collected, they were sorted into digital folders labeled Interviews, Field-notes, and Questionnaires. A digital folder containing data unique to each participant was also created and labeled with each participant’s alias. All of the data pertaining to each participant were stored in each participant’s folder. Data folders were uploaded to the software program, NVivo, an application designed to facilitate the organization and analysis of data. Data is kept on my password-protected personal computer.
Data Sources

Data sources included questionnaires, observation field notes, and semi-structured interviews. Two RR teachers of the entire group of 18 who were not participants would not give permission for video or audio recording the Continuing Contact sessions; thus, I was limited to real-time transcription using a field-note protocol to capture participant data from the group’s Continuing Contact sessions.

Questionnaires. I sent questionnaires by email, garnering a 100 percent return rate. The dates of return ranged from October 8 to January 2. Thus, I did not have access to all questionnaire data before the first observation (October) and second observation (November) Continuing Contact sessions. The questionnaire contained a total of 18 questions, 16 of which were open ended (see Appendix A). The questionnaire was divided into four sections: experience and background, motivation, experience, and learning as an RR teacher. Each section contained two or three questions.

Questions were designed to satisfy a number of purposes. For example, some were designed to elicit information about RR teachers’ motivations for remaining in Reading Recovery (e.g. “If you have been teaching Reading Recovery for more than seven years, why are you still teaching Reading Recovery?”). Others were written to garner responses about the individual experiences of the teachers (e.g. “Please describe a time when you felt your work as a Reading Recovery teacher made a difference in the life of a student”). Additional questions afforded me insight into how RR teachers’ perceive they ways they learn, e.g. “What strategies do you as a learner use during Behind the Glass presentations conducted at Continuing Contact sessions that helps you learn to
teach your students?” Answers to open-ended questions varied. Some teachers wrote long answers: 12 to 20 sentences. Others wrote only one or two sentences. The teachers who wrote more fully on their questionnaires tended to also be more forthcoming and answer more fully in interviews as well. Linda was the most reticent in all venues, answering in very short sentences on the questionnaire, and providing short and somewhat opaque answers in the interviews.

**Observation field notes.** RR professional development includes a monthly meeting called Continuing Contact. Typically each Continuing Contact session includes group instruction guided by the RR TL and a 30-minute Behind the Glass presentation by one of the RR teachers. In that Behind the Glass session one teacher brings a student and conducts a lesson with the student behind a one-way mirror so that the rest of the group can observe and analyze the lessons. I observed four Continuing Contact sessions, one of which included Behind the Glass presentations and one of which included the presentation of participants’ video clips that consisted of the two to three minute book-introduction component of a lesson. As stated previously, Table 3.2 details the data collection process.

I recorded observation field notes on my computer, using a self-created Word document divided into two columns, one for recording notes and one for recording my reflections, thoughts and comments (see Appendix B). I sat where I could both see and hear the entire group, but could also focus on the participants, who sat about four feet away at a large rectangular table interspersed among the entire group of RR teachers. I captured data to the best of my ability by recording events and situations that occurred
throughout the Continuing Contact session, by transcribing relevant comments made by the participants, and by recording as many of my real-time thoughts and comments as possible. I added thoughts and comments to the field notes immediately upon returning from the field, and created possible interview questions using the comment feature in MS word.

Questionnaire responses, field notes and possible interview questions were used as a source from which to develop additional interview questions to be asked during the semi-structured interviews. For instance, if during the Continuing Contact session, there was a particular point of interest that resonated with previous data, I noted that in the comments section and wrote a question for the interview.

**Interviews.** Participants were interviewed twice each. Each interview lasted approximately one hour. Interview questions were developed in two ways. Semi-structured interview questions for the whole group were developed prior to the interview to assess common areas relative to the MDL and to RR (see Appendix C). Questions specific to each teacher were developed from the questionnaire responses, field notes, and previous interviews to provide me with a deeper understanding of points of interest or compelling data that needed further clarification.

Interviews were audio-recorded and I transcribed each shortly after the interview was conducted. The information garnered from questionnaire responses and in each interview helped me reflect upon areas to follow up on during the subsequent interview.
Data Analysis

Data analysis was a continuous, ongoing process. I followed Merriam’s (2009) recommendation that the researcher use a simultaneous method of collecting and analyzing data as the research progressed. Throughout this process I formed tentative categories and themes throughout data collection and analysis.

According to Bogden and Biklen (1992), it is important to include observer comments in field notes. To that end, I began the process of data analysis by “simplifying, abstracting, and transforming the data that appeared in written up field notes or transcriptions” (Miles & Huberman, 1994, p. 10). I read through the teacher responses to the questionnaire, to my interview questions, and the teacher quotes and actions I recorded in my field notes. I wrote reflective memos about my thoughts, connections, hunches, and feelings, as well as tentative patterns and categories that were beginning to emerge. I read through the all of the data collected in each round multiple times. With each reading, I wrote about the data using the comment feature in MS word to highlight and note compelling data or data about which I desired more information, and to write further interview questions that related to that data for each teacher. That ongoing process of data analysis helped me sort, focus and organize my data for further data collection.

After the completion of data collection and my first round of analysis of the data using the comment feature on MS word, I engaged in an in-depth analysis of all of the data. I used NVivo qualitative data analysis software to store data in a manageable format. The software was especially helpful when assigning codes to themes. To gain an
overall depiction of the data using NVivo, I began a process of constant comparative coding (Strauss & Corbin, 1998). The complete data were again read multiple times. I utilized a participant’s idea as my unit of analysis. An idea could consist of a phrase, a sentence, a paragraph or a larger selection of text. Memos about possible hunches, thoughts, ideas and patterns were written again. My continued application of the constant comparative method identified repeating ideas throughout and across the data. When I noticed a recurring pattern, I grouped the ideas together, defined the group of ideas by their shared properties, and renamed the group as a category with a name that reflected the category. As I developed categories, the names I gave the categories became less descriptive, more theoretical. After writing and categorizing the data using descriptive codes, I used the MDL and RR instructional model of teacher learning as analytic frameworks. Questions such as, “Which of these data appear to be related to the RR teachers’ interest? Which of these data appear to reflect the knowledge of the RR teachers? Which of these data are concerned with the strategic processing of the RR teachers?” Answering these questions with the data allowed me to describe the interest, knowledge, and strategic processes of the RR teachers, as demonstrated in Table 3.3. Note, I moved from the inductive descriptive analysis to the use of the MDL as an organizing analytic lens. For a full depiction of the table with data examples, see Appendix D.

Categories reflective of the MDL were: interest, knowledge, and strategic processing. Categories reflective of RR instructional model for teacher learning included: knowledge of RR framework, understanding of RR theory, knowledge of RR tools, and
implementation of RR tools. Throughout the coding process, I remained open to conceptions of the data that might not be explained by the MDL or RR. I tried to “. . . hold...conclusions lightly, maintaining openness and skepticism. . .” (Miles & Huberman, 1994, p. 11).

Table 3.3 Data Analysis Coding Scheme

<table>
<thead>
<tr>
<th>Descriptive Qualifiers</th>
<th>Category</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accountability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivated by Challenge</td>
<td></td>
<td>Sustained Interest</td>
</tr>
<tr>
<td>Motivated by Collegial Support</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivated by Confidence and Capacity Building</td>
<td></td>
<td>Interest</td>
</tr>
<tr>
<td>Motivated by Making a Difference in Lives of Students</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivated by Realization that there is So Much More to Learn</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interventionist vs Other Educational Roles (including classroom teacher)</td>
<td></td>
<td>Contextual Influences on Interest</td>
</tr>
<tr>
<td>Similar Frameworks for Learning Literacy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relationship with RR Teacher in Building</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Familiarity with RR Program</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seek Personal and Professional Satisfaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning Literacy and Language Theories and Assumptions</td>
<td></td>
<td>RR Theory and Assumptions</td>
</tr>
<tr>
<td>Theories and Assumptions Related to RR Students</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Theories and Assumptions Related to RR Teaching and Learning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Theories and Assumptions Related to All Student Literacy Learning (RR and non-RR)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Word Work Creates Tension</td>
<td></td>
<td>RR Framework Knowledge</td>
</tr>
<tr>
<td>Book Introductions Require Complex Knowledge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observation Survey Tool for Developing Relationships</td>
<td></td>
<td>RR Tools for Observing, Monitoring, and Assessment</td>
</tr>
<tr>
<td>Running Records Facilitate Development of Complex Knowledge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Word Lists Don’t Always Follow RR Protocol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teachers Create Own Instruments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Making Use of Data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Descriptive Qualifiers</td>
<td>Category</td>
<td>Theme</td>
</tr>
<tr>
<td>------------------------</td>
<td>----------</td>
<td>-------</td>
</tr>
<tr>
<td>Collaborative Dialogue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Text Reading and Rereading</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Notes and Notetaking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observation and Modeling</td>
<td>Multi-modal</td>
<td>Strategic Processing</td>
</tr>
<tr>
<td>More Capable Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interventionist vs Other Educational Roles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(including classroom teacher)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confusions or Misconceptions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facility With RR Language</td>
<td>Acclimation</td>
<td></td>
</tr>
<tr>
<td>Still Learning-Making Use of Outside Supports to Scaffold Learning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to Scaffold Instruction for RR Student</td>
<td>Competence</td>
<td>MDL Stages</td>
</tr>
<tr>
<td>Recognizes Needs AS a RR Learner</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-assessed as Proficiency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proficient but Wants to Continue Learning</td>
<td>Proficiency</td>
<td></td>
</tr>
<tr>
<td>Proficient in Some Areas, Still Needs to Learn More About Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complex, Flexible, Accessible Knowledge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exhibits emotions in words or physicality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional Episodes</td>
<td>Emotions</td>
<td></td>
</tr>
</tbody>
</table>

Cross coding was also conducted when data reflected both the MDL and RR. Thus, some categories shared the same data points. Each time I encountered a unit of analysis, I asked the question, “What are the data telling me here? Something similar to other data? Something totally different that needs its own code?” In answering these questions, I noted that some data did not align with the MDL or with RR. Some data required theory that lay outside either framework. Data related to the embodied emotion of the participant, including physically expressed anger, sadness, and excitement were...
prevalent in the data related to one participant, Grace. I coded these data as emotional episodes (Schutz, 2014).

Luck, Jackson, & Usher (2007) wrote that an instrumental case study provides insight into an issue or helps refine a theory. The case plays a supportive role in the facilitation of our understanding of something else. Thus, the contexts and activities of the case are scrutinized to help a researcher pursue an external interest. After providing the descriptions of each component of the MDL in RR teachers in Chapter Four, I turn to the integration of these components and the multi-dimensional nature of the stages of expertise in Chapter Five. I focused on two teachers to serve as exemplars in explaining their data related to the larger group and to illustrate the stage progression of the MDL. I highlighted these sub-units of the larger case to illuminate specific aspects concerning manifestation of expertise among the participants (Yin, 2003).

Establishing Trustworthiness

Throughout the study I remained cognizant of what Guba (1981) described as the standards of trustworthiness, that is the provisions that must be made to address matters of credibility, transferability, dependability, and confirmability. Denzin and Lincoln (2000) conceived of credibility as demonstrated by the richness of the data, rather than the amount of data, as well as transparency of the research process. Cutcliffe (2003) suggested that credibility also relies on an “accounting for the researchers’ values, beliefs, and knowledge” (p. 137). To increase the credibility of the study, I examine and make clear my positionality as a researcher. I included two rounds of member checking.
in which participants read the transcripts, field notes, and my interpretation of the data. I attempted to gather data that would be rich and generative.

The concept of transferability refers to the ability of researchers to use findings from one study to gain insight to another, similar area (Lincoln & Guba, 1985). To address transferability, I provided a rich description of the context of the study and provided an extensive description of the manifestation of expertise in RR teachers, the phenomena I sought to better understand, and the MDL, the descriptive and analytic framework with I employed throughout the process of data analysis, as well as the RR instructional model for teacher learning.

The notion of dependability is explained as the replicable nature of the study. As explained by Strauss and Corbin (1998), dependability is reached when the researcher has fully explained the nature of the phenomenon to the point where another investigator could arrive at the same general scheme by invoking the theoretical perspective of the original researcher and following the same general rules for data collection and analysis, under similar conditions. To that end, I have strived to make transparent the context of my study, my theoretical perspective, my positionality as a researcher, as well as my procedures for the collection and analysis of the data.

Confirmability refers to the ability of the researcher to offer a transparent account of the research meaning that the data and the interpretations of the data are documented and supported (Lincoln & Guba, 1985). I employed the MDL, as well as components of the RR instructional model for teacher learning to describe and analyze my data. I provided the research connected to each framework laid out in Chapter Two. I also
triangulated my data by collecting data from three sources, questionnaires, interviews, and observations. In addition, I attempted to address my possible bias by explaining my researcher positionality and how my outsider status may have influenced my view of the data. Finally, I engaged the use of a critical friend, a fellow doctoral student who was also conducting a qualitative study, to check my bias and my data analysis. We engaged in multiple conversations about the data and my interpretation of the data at various points to interrogate my beliefs and to further establish credibility.

To address each of Guba’s (1981) standards mentioned above and establish confidence in qualitative research, Miles and Huberman (1994) proposed several strategies to make transparent my attempt to meet each of Guba’s (1981) standards. I summarized the standards and strategies below in Table 3.4. Additionally, in Table 3.4, I explained the methods I utilized to address each of the standards.
Table 3.4 Guba’s (1981) Standards for Trustworthiness of Data and Methods Identified to Meet Each Standard

<table>
<thead>
<tr>
<th>Standard</th>
<th>Strategy Addressed in Study</th>
<th>Method Implemented</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credibility</td>
<td>Data Credibility</td>
<td>Triangulated types of data by implementing questionnaires, observations, interviews.</td>
</tr>
<tr>
<td></td>
<td>Iterative questioning</td>
<td>Conducted semi-structured interviews that returned to matters previously raised by participants.</td>
</tr>
<tr>
<td></td>
<td>Member checking</td>
<td>Conducted check related to the accuracy of data.</td>
</tr>
<tr>
<td></td>
<td>Audit trail</td>
<td>“Memoing”- Kept running and reflective commentary dealing with emerging patterns and theories that informed the results. Commented on effectiveness of methods.</td>
</tr>
<tr>
<td>Transferability</td>
<td>Background Data</td>
<td>Established context of study in research design and provided detailed description of phenomenon to be studied.</td>
</tr>
<tr>
<td>Dependability</td>
<td>“Overlapping Methods”</td>
<td>Provided description of research design and implementation, operational detail of data gathering and evaluation of effectiveness of the study.</td>
</tr>
<tr>
<td></td>
<td>Replicable Nature of Study</td>
<td>Undertook thick, detailed description of methods</td>
</tr>
<tr>
<td>Confirmability</td>
<td>Reduce bias</td>
<td>Engaged in triangulation, forefronted researcher subjectivity and positionality, memoed about underpinnings of chosen methods and possible weaknesses</td>
</tr>
</tbody>
</table>

**Researcher Positionality**

Merriam (1998) described the researcher in qualitative research as the primary instrument through which data is collected and analyzed. Herr and Anderson (2005) suggested, “the degree to which researchers position themselves as insiders or outsiders
will determine how they frame epistemological, methodological, and ethical issues in the dissertation” (p. 30). Miles and Huberman (1998) argued that beginning researchers may have the opportunity to reap more benefit from conducting a study that is more tightly structured in design than the more inductive, loosely designed studies often conducted by more veteran researchers. Thus, my doctoral student status positioned me as a beginning researcher, while my ten years as RR teacher positioned me as an insider to the context of my study. The intersection of these two positions determined how I framed my study.

Full transparency of intention as well as an understanding of personal and professional history with all aspects of the study is necessary to ensure integrity. After receiving site approval, I approached the full population of RR teachers at their first Continuing Contact session of the school year to invite participation using an in-person plea. I was fairly certain that my “insider” status as a fellow RR teacher, native of the state, and friend of the TL would provide me with the gravitas necessary to garner at least 15 participants from which to choose 10. I was wrong. My invitation was met with silence, and no small modicum of suspicion. I realized that this particular group of RR teachers did not view me as an insider. I realized that my past and my current relationship with the TL and my current position as a university researcher created tension for all participants including myself. I was deemed an outsider by the RR teachers; insider status seemed to be one that was earned from the RR teachers.

Some teachers declined to sign the consent forms. Some teachers ignored the consent forms and did not bother to sign either way. Some teachers signed the consent forms tentatively. Ten confirmed that they would participate, but the undercurrent in the
room told me that the majority of those confirmations were tentative. The RR teachers, like most teachers, have busy personal lives, are teaching some of the state’s most vulnerable students, and are working in mostly under-resourced schools. They understood that their RR positions were heavily scrutinized due to the high cost of the program. I believe they viewed any outside interference or scrutiny with caution.

Additionally, the position of an RR teacher is one of vulnerability. RR teachers were required to reveal their beliefs, assumptions, and knowledge as they demonstrate lessons behind the glass or in video clips for each other and the TL. An atmosphere of collegial trust was necessary for the difficulty of the tasks, the large amount of transparency, the high levels of dialogic inquiry, and the expectations of accountability required of RR teachers. A stranger in the room could present a problem for a RR teacher who felt timid or tentative with demonstrating her practice and opening herself to critique. The conditions under which the RR teachers operated were determined by the quality of the relationships among the group of RR teachers and between RR teachers and their TL. The importance of trust in those relationships cannot be understated.

Further, I wrestled with my own identity. I was in the process of a less than enjoyable identity shift and RR felt like home. I felt a strong desire to connect to the teachers and desired to be part of the team; to return to something that felt welcoming and familiar, a place where I had experienced deep relationships, high levels of trust and success. The doctoral process had been a difficult one and I was not succeeding at the levels I had as a teacher or as a RR teacher. I experienced a great deal of anxiety and had seriously considered dropping out numerous times. In some ways, those strong emotions
provided me insight to the RR teachers who appeared to be timid or tentative. Additionally, my own emotions helped me appreciate the risk these teachers took to become RR teachers and the accompanying feelings they may have experienced as they added complex layers to their own identities. Further, my own emotional responses helped me to relate to the struggles of RR teachers who seemed to experience barriers in their development as RR teachers. While most of the RR teachers claimed that they experienced exhilaration about what they could now accomplish with students, each RR teacher also expressed frustration, fear, sadness, and confusion related to her professional learning. Not only did their statements conjure a memory of the same emotions in myself as I became a RR teacher, their statements about negative emotions spoke to my own as I engaged in the process of conducting my first study and writing a dissertation. I found those feelings acted as a barrier to my becoming a researcher. I wanted to chat about literacy and learning and students, familiar topics that I had missed throughout the doctoral process and that brought me joy, rather than approach conversations, interviews, and observations as a researcher, a process I found uncomfortable.

Through memo writing and member checks, I worked to establish credibility and trustworthiness. I acknowledged my biases at the outset of the study and attempted to remain as unbiased as possible. However, because of my own complicated relationship with RR, with the TL, and with my identity, I positioned myself as an outsider, albeit with extensive insider knowledge and experience, studying insiders (Herr & Anderson, 2015). Despite my desire to conduct a study about RR teachers as an insider this was not possible due to my lack of a personal relationship with the RR teachers in this group and
my initial introduction to them as a researcher conducting a dissertation study. Thus, despite my best efforts to be seen as a fellow RR teacher these teachers saw me as an “other” specifically a researcher. This perception distanced me from the RR teachers who attended Continuing Contact at MidCoast Elementary, and enhanced my own struggle with my identity. Thus, I was an outsider to this group with a great deal of insider knowledge with respect to RR. My outsider status may have influenced my conception of information shared by the participants. The participants were forthcoming and willingly offered their thoughts, their understanding of themselves, and their understanding of RR. I found returning to a RR context with which I felt familiar and at home, in the different capacity as a researcher to be more difficult than I anticipated.

**Summary**

In this chapter, I described the context of my study and my study participants, including the process of their purposeful selection. The eight participants, all RR teachers, taught at rural, northeast, coastal schools and attended the same Continuing Contact sessions guided by the same TL at MidCoast Elementary. I also explained the procedures for data collection and analysis. Data were gathered from three sources: questionnaire responses, field notes of observations of Continuing Contact sessions, and responses to semi-structured interviews. Data were coded and categorized using the MDL as a descriptive and analytic framework, as well as the RR instructional model for teacher learning. Additionally, I described how I addressed each of Guba’s (1981) standards for trustworthiness of data. Finally, I discussed my researcher positionality and the possible
influence that my status as an outsider with extensive insider knowledge and experience, studying insiders, may have had on my view of the data.
CHAPTER IV: FINDINGS

It is thinking about thinking. It is thinking about theory and teaching in such a
different way. It is hard to explain how different this is to other teachers who
haven’t had RR [training] because it isn’t about RR. It is how we learn RR and
how we learn to think about learning (Irene, Interview 2).

Irene’s quote captures how difficult it is to put into words what RR is for teachers.
RR professionals, that is, RR teachers and RR TLs, often label RR as training. It is also
referred to as professional development within the context of RR teachers’ and RR TLs’
going Continuing Contact sessions. However, the RR instructional model is complex,
interactive, focused on inquiry, and embedded in practice that does not fit the traditional
conception of either teacher training or professional development. RR teachers are
involved in an active process of extending and developing their own personal theories of
the literacy learning process (Schmitt, et al., 2005). Through multiple processes of
engaging in dialogue with peers and more-capable others, by working with children, and
observing myriad cases, RR teachers “learn to think about learning” (Irene, Interview 2).

Using the MDL as an analytic lens on the data, I addressed my research question
regarding what the MDL can illuminate about the manifestation of expertise among this
group of RR teachers. I organized this chapter around the MDL and its three components
of interest, knowledge, and strategic processing. As I explained in Chapter Two, I
considered the general interest of the participants to be represented by their broader
interest in the domain of literacy teaching; professional interest was represented by the
participants’ interest in RR knowledge. I viewed knowledge of the participants to be
represented by their topic knowledge of RR, meaning their knowledge of the RR theory and assumptions, knowledge of the RR framework, and knowledge of the tools for observation, monitoring and instruction (see Table 2.2). I described strategic processing as the processes invoked by the participants for the purpose of learning RR knowledge. The MDL provided a framework with which to analyze the data and describe the manifestation of each component specific to these RR teachers situated in the RR instructional model of teacher learning. My analysis of the data allowed me, then, to more closely describe what each component looked like in this particular group of RR teachers.

In the following sections, I first described the general and professional interest of the RR teachers. Next, I addressed the topic knowledge of the RR teachers specifically related to scaffolding students’ learning and to how they conceived of their knowledge of word work. Finally, I examined how RR teachers invoked various types of strategic processing. This section includes descriptions of the strategic processes that may have facilitated the development of RR teachers’ concepts, practices, and personal theory (Clay, 2001).

**First MDL Component: Interest**

In Chapter Two, I described the differences among situational, individual, general, and professional interest. My analysis of the data suggested that when working with these practicing RR teachers, situational interest may be less influential than researchers have found among other groups (e.g., Alexander, 2005). A shift in their expertise development appeared to be about a narrowing of general interests into
professional interests. Professional interest refers to the narrowed, specific interest in topic knowledge, whereas general interest is broader and focused on the wider domain.

**General Interest in Literacy of RR Teachers**

Examination of the data using the MDL provided insight to the RR teachers’ levels of interest. My analysis of the data indicated that before they became RR teachers, many of the participants demonstrated general interest in the wider knowledge domain of teaching literacy. Their general interest in literacy was often characterized as, “I love literacy” (Irene, Interview 1) or “I believe reading is the foundation of all education” (Margaret, Interview 1). Olivia, who had created adult literacy programs, spoke to her general interest in literacy programming that works “because of my experience with adult low-functioning readers and my desire to attempt to prevent this heartache in others” (Olivia, Questionnaire).

**RR Teachers’ Developing Professional Interest in Literacy Teaching**

Over the course of their careers, prior to becoming RR teachers, many of the teachers completed a master’s degree in literacy, and continued on to complete the 18 extra credit hours beyond the master’s degree to become certified literacy specialists (see Table 3.1). Some went beyond the literacy specialist certification and completed a certificate of advanced study in literacy (33 credit hours beyond the master’s degree), and most conducted building- or district-wide professional development in literacy for other teachers. Additionally, the RR teachers read widely in the field, started literacy programs, created book-study groups, and wrote curricula related to literacy instruction. Those activities indicated that the participants shifted from general interest in the broader
domain knowledge of literacy to professional interest in literacy teaching and learning in that the teachers became more interested in garnering, sharing, and contributing their knowledge to their chosen field of literacy education. The teachers appeared to be professionally interested in developing a theory of literacy learning and incorporating learners’ perspectives before they became RR teachers.

Irene described her early professional interest in literacy teaching and learning in which she shared knowledge with her colleague. The knowledge that she was interested in garnering was also theoretically aligned to RR:

My early years were the ‘80s. When Fountas and Pinnell came out, I bought one of their books and Nancy [alias for a classroom teacher and friend] and I shared whatever we could find because Nancy worked here too and she taught me so much. She worked in my classroom and we worked together a lot. It has always been my love, teaching, and reading is one of my favorite things to teach (Irene, Interview 1).

Fountas and Pinnell (1996), literacy scholars and RR researchers, were influential in developing the structure and system that guide Continuing Contact sessions and Behind the Glass presentations in the United States. By referencing how she learned and shared knowledge from Fountas and Pinnell (1996), Irene indicated that she was developing professional interest in classroom literacy teaching and learning that was theoretically aligned with RR.

Margaret also referenced Fountas and Pinnell (1996) as highly influential on her classroom literacy practice. Margaret noted that before she trained as a RR teacher:
I was the kind of primary teacher that did a lot of reading on my own and we did a lot of professional reading as a staff, and talking. We were very active with keeping up with the latest trends, Fountas and Pinnell mostly. I remember we read Richard Allington and that just hit me on so many levels (Margaret, Interview 1).

Here, Margaret’s early professional interest developed as she took advantage of the opportunity to join a professional context to read, and share her understandings from Fountas and Pinnell (1996) and Allington (2006), each theoretically aligned with RR learner-centered teaching practices.

Alexander, et al., (1994) suggested that individuals’ domain-related interests are related to knowledge and strategic processing. Further, Alexander et al., (1994, 1997) indicated a relationship between learners’ investment in a domain and their knowledge within that domain. That is, individuals tend to care more about domains that they know more about (e.g., knowledge of literacy teaching), and they know more about domains in which they have general interest (e.g., interest in literacy teaching). As their knowledge deepens, individuals often experience in a corresponding heightening of their interest. Moreover, as illustrated in the quotes from Irene and Margaret above, interest can serve as a catalyst for strategic processing, and lead to the deepening knowledge (Alexander, et al., 1994; Alexander et al., 1997). Thus, Margaret seemed to join her book club as a result of her general interest in literacy teaching. Further, she may have experienced a shift in her general interest in literacy teaching to the development of her professional interest in literacy teaching and in RR through her experience in the professional book club with texts at a deep level of strategic processing and conceptually rich knowledge.
As a classroom teacher, Grace’s professional interest in the domain of literacy teaching, specifically in the topics of spelling and reading, seemed to motivate her engagement in instructional conversations with the RR teacher in her school building. Grace desired to deepen her knowledge about word work, a topic reflective of classroom literacy practice that aligns with RR knowledge. To improve reading achievement for her students, Grace first developed a spelling and phonics program with her fellow primary teachers. Eventually, Grace also turned to the building’s RR teacher for help in extending and enhancing her program. Thus, the building RR teacher acted as Grace’s more-capable other in this scenario, and together, driven by professional interest in literacy learning, they developed a program that was similar in theory to the RR conception word work.

It appeared that Grace’s professional interest shifted between literacy teaching and RR, revealing a permeable boundary between knowledge necessary for classroom literacy teaching and RR teaching in schools already invested in RR. That may indicate the influence of context on Grace’s developing professional interest in RR. Grace engaged in collaboration with the RR teacher, deepened her knowledge, and as a result, spearheaded an effort to change the spelling and phonics program in the primary grades to reflect RR concepts and principles; thus, she may have exerted her influence on, and been concurrently influenced by, the surrounding context of her school. Speaking about sustained high levels of professional interest in RR, Grace referenced how her relationship with her building RR teacher lasted seven years. When the RR teacher left, and Grace’s principal requested that she train in RR for the open position, she already
seemed to demonstrate high levels of professional interest, hallmarks expertise, before she even began RR training.

**Sustained Professional Interest of RR Teachers**

Evidence of my data suggested that the RR teachers in this study exhibited sustained professional interest in the RR knowledge that may have manifested as years they waited to practice (e.g., Margaret waited five years; Grace waited seven years), and their continued and deep engagement with the Continuing Contact sessions, an arena for sharing professional knowledge, and their ongoing professional practice as RR teachers. Seven of the teachers taught RR for seven or more years and stated that they planned on remaining RR teachers for the rest of their teaching careers. Three of the eight participants taught RR for 14 or more years (see Table 3.1). Two of those teachers indicated no plans for retirement; neither were they planning to leave their RR careers for different teaching assignments. Examination of the data suggested two themes reflecting this sustained professional interest of RR teachers related to their long careers and their continuous engagement with the instructional model. As a group, the RR teachers relayed that they have so much more to learn and that they were making a difference in the lives of students.

**So much more to learn.** For Tara, Irene, and Linda, professional interest in RR may have been sustained by the “RR mindset,” (Tara, Interview 1), the conception that the level of their knowledge was inadequate to their current student needs and that more knowledge would improve their practice. Tara explained:
I have a RR teacher mindset, like you [as a RR teacher]. You know that you don’t have it right. You know that you could always be better. Most of the RR teachers that I’ve met are willing to continue learning all the way through, forever, and they are always looking for something new and a better way of doing what they’re doing (Tara, Interview 1).

Tara further discussed her theory of the RR mindset, “Everybody has areas they need work with, some piece. I am not doing as good of job as I could be” (Tara, Interview 1). Irene further echoed Tara’s characterization of the “RR mindset:

There’s always something out there, there is always something more to be learned. Just when you’ve got things figured out, you find out there’s a better way of doing things that you should have been doing all along (Irene, Interview 1).

As one of the most experienced teachers of the group, with more than 16 years of experience teaching RR, and the completion of a doctorate based on Clay’s theories, Linda shared, “…it’s also the sense that I can always be learning something new, that’s what it is, and I am. So that’s what keeps me going (Linda, Interview 1).

It seemed that the teachers aspired to the goal of deepening their knowledge and improving their practice and that desire to achieve that goal helped sustain their professional interest in continuing RR. However, they also alluded to the fact that with more knowledge comes the understanding that their practices could have been better had they known more, earlier. That underlying tension may serve as one of their catalysts for remaining interested.
**Making a difference.** Examination of the data also revealed that the RR teachers seemed to remain invested in RR to make a difference in students’ lives in ways they felt were not possible as classroom teachers. Grace, Irene, and Margaret suggested that making a difference in students’ lives was related to their professional interests as RR teachers, but could have also been associated to their job-performance goals. That is, the association to their job performance goals could mean that making a difference in the lives of struggling students could also be understood by drawing upon the motivational component of attainment value (Eccles, Adler, Futterman, Goff, Kaczala, Meece & Midgley, 1983). The RR teachers may have perceived that their continued and improved levels of performance in RR were valuable in the lives of their students (Eccles & Wigfield, 2002). Thus, the sustained high levels of professional interest held by the RR teachers could in part be attributed to the attainment values related to their positions.

Further analysis of that theme indicated that the teachers appeared to delineate practice as RR teachers from classroom practices as well. That is, the participants to think of their work as a RR teacher as fundamentally different from their work as a classroom teacher, especially in their ability to improve the life chances of their students. Grace reflected about how she believed that it was her capacity as a RR teacher that allowed her to make a difference in lives of students and teachers:

*I remain a Reading Recovery teacher because I am making a difference in the lives of struggling readers. It is magical when the reading process comes together for children. I also make a difference for [classroom] teachers. They don’t have*
time to give these struggling students what they need to become independent readers and writers (Grace, Questionnaire).

Irene made a similar distinction, citing “making a difference” as a hallmark that appeared to delineate her professional interest in RR teaching from her professional interest in classroom literacy teaching:

I feel like I’m making a difference every day. I know that even if children don’t discontinue [successfully complete the RR program] at the end of twenty weeks of lessons, they have learned new ways of thinking and approaching learning tasks. They become persistent problem solvers and are proud of the skills they have and they are leaps and bounds ahead of where they would be if they did not have Reading Recovery (Irene, Questionnaire).

Grace and Irene appeared to contrast their RR practices with their classroom practices when discussing their capacities for making a difference. Conversely, Margaret attributed her sustained professional interest in RR to her desire to make a difference as aligned with her practice as a special education teacher that included problem solving, analyzing, collecting, and reflecting on what a child needs. She viewed her education and training in special education to be very helpful in her work as a RR teacher:

I felt like I could make a difference and I really like analyzing and collecting and planning my next move and thinking about what does this kid need and what am I doing? (Margaret, Interview 1).

Interest is described as a motivating influence by the MDL. The theme of “so much more to learn” seems to align with the interest as motivator description. The
participants seem motivated by their conception that knowing more will improve practice. Interest is also described as an affective component of the MDL. The theme of “making a difference” alluded to personal investment of the RR teachers in the success of the students, and to how they feel when students are successful. The RR teachers’ comments suggested their underlying feelings or emotions are part of the affective domain. It could be that the emotional aspect of interest component may need further understanding.

**Interest Summary**

Prior to becoming RR teachers, participants reported general interest in the wider domain of literacy teaching. There appeared to be a shift to from the general interest in literacy teaching to professional interest in the domain knowledge of literacy teaching, and learning that was theoretically aligned with RR resulting in the teachers’ high levels of professional knowledge being directed at RR knowledge. The RR teachers reported those high levels of professional interest when discussing two themes: a belief there is so much more to learn, and a belief they are making a difference. My analysis of the data suggested that the latter reason could be attributed to the motivational construct of attainment value, the participants’ belief in the importance of their work and in their responsibility to perform at high levels. In sum, my analysis of the data suggested that RR teachers manifest professional interest as a willingness to continue engaging in ongoing professional development to improve practice. Further heightening of their professional interests appears related to their desires to deepen their knowledge and their feelings with regard to their influences on the life chances of struggling students.
**Second MDL Component: Knowledge**

As explained in Chapter Two, Alexander et al., (2004) considered knowledge as existing within two dimensions, domain knowledge and topic knowledge. Domain knowledge is foundational, somewhat cohesive and principled. Its development is linked to deepening levels of professional interest and less reliant on general, more situational interest in the context (Alexander, 2003). Topic knowledge is conceptually complex, principled, deep knowledge: how much an individual knows about a specific topic and the conceptual richness of that knowledge (Alexander, 2003). Within any domain an individual may have topic knowledge to varied degrees about a number of topics. Highlighted in this investigation is knowledge that reflects the topic-knowledge necessary for teaching and implementing RR in ways that meets students’ individualized needs.

In previous chapters, I discussed RR as specific topic knowledge that exists within the larger domain knowledge of teaching literacy to primary students. I described RR knowledge as comprising the three elements that undergird RR: (a) RR theoretical principles and assumptions, (b) the RR framework that acts as an organizer for the components of the lesson, and (c) the RR tools used for observation, monitoring, and instruction. In Chapter Two, Tables 2.1 and 2.2 detailed those areas of topic knowledge inherent in the RR model and evidenced by the teachers in my study. Two themes emerged from my analysis of those data concerning RR teachers’ topic knowledge: (a) integrated knowledge of framework, students, and texts is employed for scaffolding, and (b) knowledge of word-work loomed large.
Integrated Knowledge of Framework, Students, and Texts is Employed for Scaffolding

As discussed in Chapter Two, the RR teachers draw on their topic knowledge of the RR framework, of texts, and of RR students to successfully scaffold RR students’ constructions of self-extending systems to become independent readers who read and understand continuous text. Analysis of the data suggested that guiding the participants’ scaffolding decisions was their teachers’ knowledge of, and enactment of, RR theoretical principals and assumptions about literacy teaching and learning, as well as their knowledge of the RR framework and tools for observation, monitoring and instruction. At the heart of that topic knowledge is the understanding of how to scaffold instruction for each struggling reader. Scaffolding refers to the changing quality of support offered by a more capable or more knowledgeable person to learners in a social setting and can include modeling, directing, highlighting, explaining, and shaping learners’ efforts, while gradually withdrawing support until the learner becomes more capable (Wood, Bruner, & Ross, 1976; Wood, 1988). Thus, the deep knowledge base of RR teachers must be flexible, fluid, and accessible at a moment’s notice to remain alert to students’ reading behaviors and decisions related to scaffolding student learning in real time as suggested by Helen:

There are some children that I can give a very brief [book] introduction to because they have had more of that language background and they don’t need as much support. There are others that need a tremendous amount of support even when they are reading at the higher levels because they haven’t had the experiences.
They haven’t had those conversations that would allow them to bring more to that book and I think that those children are the ones I worry about the most comprehending things because that language isn’t there for them. I need to give them as many opportunities [as possible] to talk and to think about new vocabulary (Helen, Interview 1).

In her comments, Helen explained how: (a) the integration of her knowledge of the RR texts used with students in lessons, (b) her knowledge of the RR framework as it pertained to the importance of book introductions, and (c) her knowledge of RR theory, undergirded the specific scaffolding she provided for each student based on observation and monitoring. In her example, Helen demonstrated the interconnectedness and fluidity of her RR knowledge. She possessed knowledge of her students, the texts, and literacy and language development at a deep level, as well as knowledge of the integration of each of those aspects. She employed that knowledge to make decisions pertaining to book introductions and how to scaffold specifically for language support needed by each RR student. She also referenced children who may need conversations and vocabulary development before entering higher levels (more difficult texts). Here, she could be referring to how RR teachers develop a large corpus of topic knowledge in practice through myriad observations of deliberate, reflective problem solving about specific situations (Gibson, 2010). Her deep topic-knowledge related to her observations and reflection. Helen may have recognized that some students may not be ready for more difficult texts, and may need further vocabulary development through rich conversations.
Remaining sensitive to, and making real time scaffolding decisions based on, students’ behavior required the fluid, integrated, accessible, knowledge as evidenced by Olivia. For example, Olivia made the decision to keep a student reading at easier text levels for longer than usual to allow the student to work on phonemic awareness, a foundational building block necessary for phonological processing. That decision demonstrated her knowledge of the relationship between phonics and reading, and the specific needs of a particular student. She concurrently sent sight words home to help the student build a sight-word vocabulary and perhaps to enlist his mother, who was eager to help. In doing so, she demonstrated her knowledge of the home support necessary for accelerating RR students, and built rapport with the family of the student. By waiting and keeping her student in easier text levels, Olivia allowed him to develop stronger phonemic awareness. At the same time, she provided his mother an avenue to help her son in meaningful ways:

He just moved into 7 [text level]. He’s a 6, just moved into 7, but he spent a couple weeks more at the beginning at each level. He could not remember sight words at the beginning. He could sound them out, but could not remember them, so I sent home flash cards with sight words and his mom. She’s a teacher, and she did a lot of phonics work with him that I don’t think he was ready for because he didn’t have strong phonemic awareness yet. It’s just now starting to come together. She [the mom] has been just doing the work I am sending home and not the work he wasn’t ready for (Olivia, Interview 1).
As Olivia gradually increased the student’s responsibility for attending to the features of words, she gradually increased the level of text. Olivia followed Clay’s reasoning regarding the ease of work for students (Clay, 1993, 2006). It appeared that Olivia scaffolded her instruction to keep the student’s attempts to read and understand text focused on the word level, while keeping the comprehension work easy. Olivia demonstrated her the depth of her integrated, accessible knowledge of her student’s family, her student’s family’s ability to work with her student, her student’s needs, and the needs of her student’s mother, with her knowledge of teaching reading.

In the following example, Grace described her observations of the differences in the scaffolding decisions made by Olivia and Courtney. While Grace illustrated her knowledge of RR assumptions, theory, framework and tools in her observations of the differences in the scaffolding decisions of two RR teachers, her knowledge does not appear as integrated and sophisticated as Olivia’s knowledge. Grace observed video clips of Courtney and Olivia providing the book introduction portion of a lesson during a Continuing Contact session and spoke about it during a subsequent interview:

Olivia supported him throughout the story with prompts that were sensible. I felt like Courtney didn’t give the support that was necessary to be successful. I might have done something like Courtney did much later when the child had more or knew a lot more about words and was farther [up] in reading levels. I find at this point [where Courtney’s student was], you have to give a much more detailed introduction to the story. It’s more than that picture walk. It’s a story walk. (Grace, Interview 1).
Grace appeared to recognize that Courtney may have released too much responsibility of the learning too early after the book introduction for the student to be successful in reading his new book. On the other hand, Grace noted that Olivia, seemed to make scaffolding decisions based on the student’s strengths, a RR theoretical principle. She suggested that students reading at lower levels might need more scaffolding, a “story walk” rather than a “picture walk” through the book during the book introduction.

However, Grace characterized Olivia’s scaffolding as “sensible.” Grace’s use of the term “sensible” lacked detail about her observation of Olivia’s focus on her teaching point and the ways in which she used specific prompts as scaffolds for the student.

In contrast, Tara demonstrated integrated, fluid, accessible knowledge. In her reflection below, Tara relays her knowledge related to the specific scaffolding needed to structure when and how particular texts are introduced to particular students:

Text structures can be so tricky for students. I have noticed that my students struggle with the way the dialogue is placed on this page [holds up book to show page]. Kids have to notice if ‘Nic said’ is at the beginning, middle, or end of a piece of dialogue, what Nic said, if she is talking about ‘it,’ and what ‘it’ is! Like, here, [holds up the book to show picture] the kids have to remember that ‘it’ is a merry-go-round and that Nic talked about it on the page before. That is a hard structure and I always have to introduce it (Tara, Field notes 10-2014).

Here, Tara’s fine grained description of a specific instance related to scaffolding demonstrated her integrated, flexible, accessible knowledge of RR students, book introductions, text structure, RR texts for lessons, and RR theory of early literacy.
learning; also evident was her ability to anticipate issues students may experience with that particular text (Field notes, 10-2014).

There appeared to exist a qualitative difference between how Olivia and Tara described their processes for scaffolding, and how Grace described her observations of scaffolding. The difference may indicate that the manifestation of expertise with regard to knowledge may be related not only to the enactment of scaffolding instruction, but also to how RR teachers evaluate and describe their observations of others, as well as to the extent to which they can engage multiple aspects of topic knowledge to make those evaluations. It is within the context of their practice that expertise can be “heard” in multiple ways; in their engagement with students, in what they bring to the observations, and how they make meaning of their continued learning and developing knowledge.

Knowledge of Word Work Loomed Large

Most prevalent in the RR teachers’ discussion of topic knowledge was their discussion of word work. Salient among these teachers are the ways their knowledge of word work differed from their knowledge of other aspects of RR. The participants referred to specific knowledge of word work, related their frustration with word work procedures and structure, and reflected on their newly formed understanding as they developed more robust, conceptually rich word-work knowledge.

In RR word work involves the analysis of letters, words, and sounds, and is completed during the writing section of the lesson. The purpose of that section in RR is to help students understand how letters and words work. Initially a child may search for specific letters within a jumble of magnetic letters at the white board, e.g. “Find all the
‘b’s!’ or “Put the uppercase and lowercase letter pairs together.” The teacher may help the student notice features of letters or work to control a consistent left-to-right orientation of letters and across words. Later, the student will use the magnetic letters to break known words into familiar parts. Understanding how words can be taken apart and how the parts in one word look and sound like parts in other words, helps students use what they know to implement strategies to read and understand unknown and nearly known words in reading and writing.

The RR teachers in this study understood word work as a strategic activity in which teachers and students engaged to promote students’ ability to problem-solve words (i.e., figure out how a word sounds and what is means in a sentence). That view of word work is related to the RR theoretical principle of reading as a problem solving process. When discussing word work, the RR teachers focused specifically on the particular part of the lesson in which the teacher and student spend time (about two or three minutes) focused on activities related to extending the students’ range of known letters and words, usually done at the white board using magnetic letters.

The participants often discussed word work in two ways, as a set of items and as strategies. I characterized word work “items” as referring to the declarative knowledge that teachers must know, and students must be taught. Items include letters, sounds, common endings, digraphs, and blends. I characterized word work “strategies” as referring to the problem-solving behaviors teachers taught or reinforced in students as they worked collaboratively to solve words when reading continuous text, e.g. cross-checking. Students must possess a certain amount of item knowledge, e.g., letter features,
letter identification, and letter-sound correspondence, to support their abilities to engage in problem-solving behavior and employ necessary strategies when encountering unknown or nearly known words, and vice versa. Students gain further item-knowledge as they develop better ability with problem-solving strategies. My analysis of the data revealed how RR teachers characterize their knowledge with regard to word work. Tara, Courtney, and Linda were frustrated by their lack of knowledge, and considered word work complex and difficult. Helen and Linda used knowledge of word work in myriad contexts.

For example, Courtney shared feelings of frustration that sometimes pervaded the other participants’ conversations about word work, “…[word work is] still so difficult I mean, word work is like, I mean my God, am I ever going to figure out how to do the word work?” (Courtney, Interview 1). Linda spoke about the complexity of word work:

I think I may do more of it than they [RR guidebook] recommend. The kids deal with it. It’s my creativity. I’ll be up there [the whiteboard] and I’ll see something and then I’ll think of something else. I do a lot more with the letters and sounds, bringing that through the entire lesson.

Helen referenced her use of RR topic knowledge of word work in relationship to introducing a new word to one of her Title I students, “We clapped out syllables, scooped it [a RR teaching strategy]. He was just going to tuck it away and not bother, so I had explained the connection between classroom, and home, and school, and knowing words, and how they mattered to his comprehension” (Helen, Interview 1). Tara’s example illustrated the tension and frustration iterated by other teachers regarding the aspect of
word work. It also illustrated how the RR teachers exhibited knowledge of varying depths in different aspects of RR knowledge. That is, a RR teacher may possess deeper, conceptually rich knowledge of text structures, but her knowledge of word work may not be as robust.

As Tara reflected on her knowledge of word work, she demonstrated a sense of frustration. She perceived that she lacked necessary word-work knowledge to tackle the enormity of the word-work task relative to the time allotted to the word work in the RR lesson. Tara also discussed how that frustration led her to experiment with word work, and propelled her to further develop her understanding. She shared her thoughts about word work, noting her difficulties with remaining true to her knowledge of the RR framework:

> It’s this kind of infinite, galaxy of things they [RR students] need to know. And then on top of that, the English language doesn’t really follow rules very well, and then on top of that you have to teach all of that, and oh it doesn’t work here, and it doesn’t work there, and it doesn’t work here. You can get bogged down in it sometimes. It’s making it relevant, I think. Making sure you’re not just going up to the board because that’s part of the lesson and I’ve got to do it, but making it actually a relevant piece of their learning is the hardest part (Tara, Interview 2).

Tara hinted at her willingness to keep developing and deepening knowledge of word work as she integrated it with her deep knowledge of RR theory. Rather than remaining rigid and adhering to the RR framework, Tara recounted a theoretically aligned innovative practice she employed. She manipulated the sequence of lesson
components to be responsive to her student behaviors, “Instead of doing word work at a certain time in the lesson, I took the book up and went up to the whiteboard and worked on words at that time [when student demonstrated need] (Tara, Interview 2). Nonetheless, she still felt unsure of her knowledge regarding the implementation of the word-work component itself. Tara reflected on her knowledge of word-work concepts and practices. She claimed that word work was one of the areas in which she would most like to improve:

It might be tightening up word work a little bit. Teach concepts, not items. I think kids need items. I think kids need to know the blends and the digraphs and all those things, but I think if we do it too much out of context of reading, they don’t necessarily assimilate that and use it in their reading (Tara, Interview 2).

Here, Tara exhibited her conceptually rich knowledge of word work by way of demonstrating her thinking about her knowledge. Further, Tara evidenced the role of her high professional interest related to her knowledge of word work. She brought word work to the forefront of the Continuing Contact session dialogue, shared her concerns about her own knowledge, and asked other RR teachers how they taught word work in certain situations. According to Tara, the knowledge of how words work was necessary for students, and she prioritized teaching the strategies students needed such as cross checking visual cues with meaning cues to read and understand unknown and nearly known words in continuous text. There appeared to be a tension between Tara’s conceptually rich knowledge about the integrated problem-solving process of learning to
read and understand words, and the difficulty she experienced with pulling out one element to teach it separately as a needed item inherent to that process.

**Knowledge Summary**

RR knowledge appeared to manifest in how RR teachers scaffolded instruction to meet the needs of their students. Scaffolding requires principled, deep, flexible, fluid, and accessible knowledge of each component. The data evidenced that some teachers’ ability to scaffold instruction is related to their knowledge in specific areas such as text structures or word work. My analysis of the data suggested that in particular aspects of RR knowledge such of how to introduce text structures or of how to scaffold instruction related to word work, participants evidenced varying depths of knowledge. For example, Tara demonstrated deep, integrated, flexible knowledge when speaking about speaking about specific text structures in particular texts and how she would scaffold instruction for a student. However, Tara also spoke about her difficulties with the word work aspect of the lesson. This difference in knowledge of certain areas may be the attributed to the fact learning to teach reading may be ill-structured (Spiro, 1988). That is, the teaching of reading is considered a conceptually complex task and requires acquiring a conceptually rich, fluid knowledge base coupled with cognitive flexibility (Spiro, 1988). Because of the conceptual complexity of teaching RR, these RR teachers may be working to attain deep knowledge of certain aspects while they possess deep knowledge of other aspects. Thus, it appears that they be operating within one stage of the MDL in most aspects of RR knowledge (such as text structures), but at a different stage in others (such as word work).
Third MDL Component: Strategic Processing

For the purpose of this study, I defined strategic processing as the types of strategic activity in which the RR teachers engaged in service of their own learning to develop as RR teachers. That definition differs slightly from the MDL that premises individuals employ a range of surface and deep levels of strategic processing that lead to the construction varying levels of domain or topic knowledge (Alexander, 2003). In this study, RR teachers’ types of strategic activity were examined in light of their developing professional practices.

Alexander (2003) posited that learners vacillate between surface and deep-level strategies, to construct both domain knowledge and topic knowledge as needed to meet targeted goals. The most proficient individuals regulated their learning (Alexander, 2003). That is, they possessed an effective repertoire of surface and deep-level strategies, invoking them as needed to gradually develop more specific-domain knowledge and conceptually rich, principled topic-knowledge necessary for continued transformation (Alexander, 2003). However, the majority of studies related to the MDL and strategic processing were conducted in contexts that privilege text-based learning (e.g. Alexander, et al., 2004). Strategic activity in this study was observed and discussed in the context of practice, that is, in the context of their Continuing Contact sessions and Behind the Glass observations. Participants in this study appeared to invoke different types of strategic activity based on varied learning intents or purposes. The type of strategic processes that participants chose to apply and the intentions for which processes were applied seemed to be associated with the level and complexity of the participants’ knowledge. Additionally,
the intent with which participants invoked a type of strategic process appeared to be related to the level of interest the participants possessed regarding the knowledge being learned, presented, or discussed. The RR teachers reported using strategic activity that encompassed: (a) note taking, (b) participating in dialogue, and (c) reading and rereading text.

**Note Taking**

Many of the teachers commented that they used note taking as a type of strategic activity during the Continuing Contact sessions and Behind the Glass presentations. However, teachers used note taking for different purposes, and in ways that appeared to reflect their levels of interest and knowledge. Each of the RR teachers took notes to remember knowledge, but in different ways. Helen, Irene, Linda, Olivia, and Margaret engaged in a rather extensive multistep process of writing and reviewing notes, while Tara seemingly took notes to remain physically engaged, to keep busy.

Helen and Irene used note taking as a strategy to help them learn new information when they were interested in solving problems of practice, “I am a note person. I take notes and go over them all the time” (Helen, Interview 1). Referencing Behind the Glass presentations, Irene coupled note taking with the strategy of observational learning and wrote about what she observed, “I have to see it and write it. The physical act of writing it down consolidates it for me. It cements it” (Irene, Interview 1). Irene seemed intent on remembering what she saw enacted in demonstrations, and writing and reviewing notes facilitated that purpose.
Linda, Olivia, and Margaret seemed to take notes in multistep processes that reflected their professional interests and their depth of knowledge in specific topics related to RR. In her questionnaire, Linda wrote broadly about note taking as a strategy. It seemed that Linda took notes when new information or a new way of thinking about a problem of practice was introduced. One of her intents for taking notes was to check her own learning of new information. In her case, note taking may have facilitated other types of strategic activity such as asking questions and interacting with colleagues, although that is less clear:

I often take notes; ask questions, check in with someone next to me to clarify and be sure what I think I am learning is truly it. Then, when/if I understand and if it is appropriate, I use the new learning in coming lessons and reflect on how it works, and then I review my notes so I don’t forget (Linda, Questionnaire).

It appeared that Linda took notes with the intent for future reviewing. For Linda, writing, engaging in discussion to understand and evaluate, enacting knowledge in practice, reflecting, and using notes for reviewing and remembering appeared to be activities in which she engaged to internalize new knowledge.

Olivia also engaged in a multistep process of taking notes to record new information with the intent of reviewing them later. However, her note taking and review process seemed more purposeful than Linda’s process. It appeared to echo the efficiency of the MDL conception of vacillating between surface and deep structures:

I’m constantly note taking and I’m trying to hit the salient points as I go and so I think for me as learner it comes from college, I don’t think from high school.
Writing it down helps me remember it. I don’t always go back, but I do. When I do go back it helps sink in even more. Certain things I know I want to go back to and I know I will. I keep those notebooks and I often do go back later, not immediately, but mostly, I think it’s just that process of thinking while I’m watching and trying to pull those important points. I mean I never really thought about it until I heard that study [on NPR]. It kind of rang true for me (Olivia, Interview 1).

It seemed that Olivia attempted to take salient notes that reflected her professional interest in RR knowledge. She then referenced how she refined her knowledge by invoking the strategic process of revisiting only “certain things” when she needed to solve a problem of practice, “not immediately.”

Margaret also took notes with the intent to use them as a reminder of new knowledge to help her solve a problem of practice. In contrast to Linda and Olivia, Margaret referred to strategic processing related to her specific, topic knowledge of RR book introductions. The problem she attempted to solve related to remembering the process of the introduction, the content of the RR texts used for students, and the relationship between the two:

I know the books a little better than I did that first year so it’s easier to figure out what’s going to trip a reader up and I often have a Post-it note on the inside cover with a reminder written on it. I introduce [d] the book to someone, I remember, “Oh, this is a tricky part I want you to understand this part it’s important. That [post-it note] just helps what I need to execute because I’ve done some pretty
lousy book introductions, especially when I didn’t know the book well and felt overwhelmed. It does make or break a lesson for that portion (Margaret, Interview 1).

Fairly new to RR, Margaret was still in the process of deepening her integrated knowledge of the relationship between the student texts used in lessons and the RR framework. Her knowledge of the student texts used in lessons and what might make those texts tricky for struggling readers was still developing. Margaret appeared to use note taking as a tool for the purpose of building a large corpus of knowledge based on observations of typical errors in texts committed by struggling readers, as well as the decisions and moves she can make to facilitate learning around that possible error. Her strategic-processing intent appeared to be about remembering the tricky parts of each text, and how to scaffold book introductions to support the learning of individual students. As Clay posited, the challenge of teaching RR is the ability to respond to the behaviors of individual students in the moment (Clay, 1993). In her ongoing development of expertise, Margaret appears to be concurrently continuing to gain and integrate knowledge of the RR theoretical principles and assumptions, knowledge of observation and assessment techniques to alert her to students who may not respond to texts in common ways, and knowledge of RR framework (e.g. the components of the lesson) to remain flexible with moves for all types of students’ responses.

Tara presented a different purpose for note taking. Analysis of the data indicated that Tara took notes to remain busy during Continuing Contact sessions. However, she did not mention if she followed up or if she reread her notes, “I would take notes and do
stuff like that. I am more kinesthetic. I tend to want to do something. So, I would take
notes and that sort of thing” (Tara, Interview 1). In contrast to aforementioned
participants, Tara’s intent for taking notes appeared to be to remain busy or to satisfy the
need to keep moving.

**Participating in Dialogue**

In Chapter Two, I referenced studies of RR teacher learning through dialogue
within the RR instructional that included how RR teachers assist each other in thinking
about their instructional decision-making (Lyons, et al., 1993); cooperatively created
chains of reasoning (Lyons, et al., 1993); progressively grew more skillful in asking
questions in ways that supported learning (Lyons, 1994); incorporated assisted
performance as a way of learning into their instructional repertoire (Lyons, et al., 1993);
and used the group as a whole for help when making decisions at points of frustration
(Power & Sawkins, 1991; Lyons, et al., 1993). However, researchers have not highlighted
the intent of RR teachers’ use of dialogue as type of strategic processing. Neither have
researchers focused on the relationship among RR teachers’ interest and depth of
knowledge and why RR teachers’ choose dialogue as a type of strategic processing.
Below are findings associated with the RR teachers’ intent to use dialogue as a type of
strategic activity. Also included is the possible role played by the level of RR teachers’
interest and depth of knowledge on their uses of dialogue as a type of strategic activity is
also discussed.

**Learning from TL supported dialogue.** The TL is instrumental in supporting
the collaborative dialogue of the RR teachers. She provides new conceptions of
previously learned notions, materials from her own professional and philosophical reading, and materials from conferences and/or professional development which she has attended as a TL (Fieldnotes). Irene and Grace recognized that the TL played a role in how the dialogue was used as a type of strategic activity by the RR teachers. Irene clarified that participating in dialogue with colleagues throughout the Continuing Contact sessions was guided by the TL, and that the TL’s presence inherently influenced participation in dialogue as a type of strategic activity, “There is a TL who is kind of further along in her thinking because it pulls us along too and she knows the right questions to ask to make us think, and reminds us that teaching is a thinking process” (Irene, Interview 1).

Grace also mentioned the role of the TL and the importance of the TL’s guidance in her use of dialogue as a type of strategic processing. Grace appeared interested in developing deeper and more complex topic-knowledge to help her solve problems of practice. She acknowledged that the amount of topic knowledge needed as a RR teacher could be daunting. The TL facilitated the dialogue by providing topic knowledge for discussion, by revisiting topic knowledge often, and by connecting topic knowledge to theory:

TL brings a topic for discussion and it always connects it to Marie Clay and the theories behind why we do what we do. It raises my awareness about the good things I need to be doing in order to help my kids progress and it’s topics that we’ve talked about before, but you get going in life, and you’ve read so many things, and you’re doing so many things, and you’re working with so many
different kids, and so many kids have so many different needs, that sometimes
you forget about one component and how to solve this specific problem (Grace,
Interview 1).

Invoking dialogue to gain multiple perspectives on complex knowledge.

Engaging with collaborative dialogue is a learning strategy heavily relied upon by the RR
instructional model of teacher learning. Teachers are highly encouraged to talk to each
other about their observations of student learning, their own process of learning, and their
new conceptual understanding related to prior knowledge and knowledge of multiple
student cases. Demonstrating professional interest in more complex knowledge for RR,
Grace, Irene, and Tara invoked the use of dialogue as a strategy for learning in a variety
of ways with the intent to gain multiple perspectives.

. Referencing her preference for engaging in dialogue over reading the text, Tara
reported talking with other RR teachers with whom she shares her teaching space. Even
though the number of RR teachers at Tara’s school has been reduced from four to two,
Tara still shares space with one other RR teacher. Thus she considered learning to be a
collaborative experience and her knowledge to be co-constructed through dialogue. Tara
sought knowledge from her colleagues to help her solve problems of practice and engage
in reflective discourse, to “bounce ideas off and get ideas from” (Tara, Interview 1). Due
to their proximity, Tara’s RR colleagues may have offered her very specific knowledge-
based feedback related to the interactions they observed between her and her students:

I tend to talk more and I have always been lucky enough to have other RR
teachers that I worked with when I first started. There were four of us. So, I think
it has been more collaborative for me because I haven’t been by myself at all. I’m very lucky in that way (Tara, Interview 1).

In the following two instances, Irene and Grace noted that the use of dialogue allowed them to construct knowledge of topics in which they had professional interest, book introductions and word work. Both participants appeared to employ dialogue to seek multiple perspectives to develop a more complex and conceptually rich understanding. Irene, however, seemed to demonstrate a more specific intent that was focused on the use of the knowledge to meet the needs of the student:

What you learn from talking about it [book introduction], is [it] gives you more to draw on, to be able to do the right kind of introduction for that specific child. The dialogue, the talking back and forth, people look at things differently, so we have different points of view of the same teaching. Someone sees the same thing in a different way, just talking about it and being able to think about it in a new way, it helps to have other people’s input. It keeps us fresh. It keeps us thinking in new ways and it also reminds me of things I should be keep in mind that are basic tenets of RR, the basic way we do things (Irene, Interview 1).

Additionally, Irene recognized her need to be reminded of the basic tenets of RR. That could mean that she considered the multiple perspectives of her colleagues in light of RR theory. Thus, Irene might have invoked dialogue as a type of strategic activity with the intent of deepening her knowledge of possible innovative practices that are theoretically aligned, and could be used to respond to a student’s responses. That idea was reflected in Irene’s continued remarks:
Sometimes you get away from what you need to be doing and it [dialogue] draws you back to it and you remember why it was important to work with the word work right at the moment they [students] need it. I find having the group brings me right back to that. (Irene, Interview 1).

Grace also referred to gaining multiple perspectives through TL supported dialogue:

We talk about what word work looks like at the beginning of the year, and what word work looks like at the end of the year. So that sharing of knowledge of what works for different teachers and how they approach it, that’s probably what I have got the most value out of (Grace, Interview 2).

Topics of discussion during a Continuing Contact session are initiated by the TL and based on the needs of the RR teachers. I viewed the TL as responding to the RR teachers’ need to continue to deepen their knowledge related to word work and Grace’s intent to engage in TL supported dialogue. These examples reflect the complexity of the interaction among interest, knowledge, and strategic processing that RR teachers must bring to engaging in dialogue to further develop their expertise. They must be interested, and possess a depth of knowledge that allows them to wonder about the complex questions with which to engage.

**Supportive dialogue in early stages of development.** Alternatively, Margaret demonstrated professional interest in developing RR knowledge, but seemed to be at a different stage of development than aforementioned participants. Margaret, with four years of RR experience, was still in the process of developing the foundational
knowledge necessary to build the more complex, conceptually rich knowledge of the more experienced RR teachers. Reflecting on her strategic activity, Margaret appeared to understand how her choice of engaging in different types of dialogue facilitated her learning through her progressively different stages of learning and development, from her training year, transitioning through to teaching on her own:

I had to trust the process. I did a lot of self-talk that year, ‘Trust the process. Everything will be okay.’ And sharing with my trainer as well, now my teacher leader, and I just felt very supported by her and my classmates. Now the transition from that experience, that training time to kind of being on your own, I felt like I personally needed more of a bridge between the training year and all of a sudden I’m on my own like I know everything, but that certainly isn’t the case. I’m always learning and often challenged by some of my students (Margaret, Interview 1).

At the time of the study, Margaret engaged in various types of personal dialogue with the TL, using a variety of methods. Her professional interest in RR knowledge in order to be successful with particular students appeared to motivate her to employ personal dialogue with the TL as a strategy for learning:

It’s always a relief to be able to have a mentor who has a lot of experience with the Reading Recovery and teaching, to be able to throw around some ideas, “This is what I see, what do you think? Do you have suggestions?” Being able to call her, or email her, or now do Zoom [digital viewing software] lessons, which are really, really helpful (Margaret, Interview 1).
Margaret engaged the TL as a more-capable other on a regular basis, a type of strategic activity. While others were observed by the TL per the required RR schedule, Margaret requested numerous observations by the TL, which the TL was able to accommodate.

Engaging in dialogue to solve problems of practice. The RR teachers also invoked dialogue as a learning strategy to solve problems of practice. According to Irene, much of the dialogue in Continuing Contact sessions was framed as inquiry, “Getting together with that dialogue, ‘What does this mean?’ ‘What does that mean?’ You gain a lot when you have a group of people searching for the same thing” (Irene, Interview 1). Participants referenced using dialogue as a way they help solve problems of practice specifically related to students. They considered RR students while participating in dialogue with colleagues, or remembered dialogue from a Continuing Contact session to facilitate better decision-making when teaching students. When engaging in dialogue as a learning strategy during and after Behind the Glass presentations, Olivia purposely kept her students in mind:

I always have my own kids in the back of my mind during those [Behind the Glass] discussions. I am constantly learning about them at the same time I watch other teachers’ students, especially if I read before I came to a lesson and we talk about it afterwards (Olivia, Interview 2).

It appeared that Olivia intended to interweave strategic activity of dialogue, observational learning, and text reading to solve problems of practice related to students. Olivia also seemed to employ prior RR knowledge throughout her strategic processing, demonstrating the interplay of knowledge and strategic processing.
Irene also participated in dialogue during a Continuing Contact session to solve problems of practice associated with students. She recalled parts of the dialogue while in later lessons with a student, and employed a teaching decision during that lesson based on her learning from the dialogue. Irene remarked, “I came back to something that somebody said in class and I realized, ‘Ooooooh! That is what I am doing wrong with this little guy’ and I tried that instead [what someone said] (Irene, Interview 2).

**Reading and rereading texts.** Text reading is the most common method of studying the interplay among interest, knowledge, and strategic processing (e.g. Alexander et al., 2004). The common texts, *Observation Survey of Literacy Achievement*, and *Literacy Lessons Designed for Individuals, Part I* (Clay, 2005a) are required reading for RR teachers in the training year and beyond. An accompanying text is added after a RR teacher has completed his/her training year, *Literacy Lessons: Designed for Individuals, Part II* (Clay, 2005b) and is also used throughout the span of a RR teacher’s career. According to Clay (2005a), the common texts are theoretically and practically based, offer theory, include pertinent information concerning tools of observation, assessment, instruction, and refer to salient teaching procedures. However, the texts were considered guidebooks, not curricula. Clay (2005) reported that the texts were written to be continuously interpreted and reinterpreted by RR teachers *in situ* to meet the needs of their individual students, as well to facilitate the development of a common language used by RR teachers.

Throughout training and beyond, the RR teachers in this study engaged with the required Clay texts in different ways, depending on their years of experience, the year in
which they trained, and their intent for reading. Specifically, they cited reading and rereading the texts introduced in the RR training year and their continued use throughout their careers as RR teachers. If they trained prior to 2006, they cited Observation Survey: Survey of Literacy Achievement (Clay, 1993) and Reading Recovery: A Guidebook for Teachers in Training (Clay, 1993) if they trained in 2006 or after, they mostly cited Literacy Lessons Designed for Individuals, Parts I and II (Clay, 2005a and 2005b). However, the earlier trained teachers have read and reread both Literacy Lessons books extensively in addition to the Observation Survey and Reading Recovery Guidebook.

Irene and Margaret remarked that they engaged with Clay’s texts seeking further knowledge or to solve problems of practice related to specific students, or both. Irene also commented about the importance of discussion focused on the texts, and how engaging in dialogue facilitated her reflection about the texts related to her practice that appeared to result in the deepening of her RR knowledge.

**Reading to solve problems of practice.** Irene and Margaret both read and reread Clay to solve problems of practice with a focus on students. Irene suggested that she read and reread Clay’s text, discovering and rediscovering various items of import depending on her level of professional interest in particular topics at particular points in time:

> I seem to learn something new every time. If you look at my books that Marie Clay wrote almost all of it or them are highlighted. At one point or another, going back to it, I thought, ‘Oh this is hugely important’ and (made marker highlighting gesture with hand). And I go reread those highlights. I go back when I am struggling with a student. Often I see things in a new way when I am looking at it
for a second time, a third time, and a fourth time, something will jump out at me. (Irene, Interview #1).

Similar to Irene, Margaret intended to seek knowledge from the common texts when faced with student learning challenges, she stated:

I thought, ‘Well, I’m just going to go to Marie Clay and see what she has to say.’ Here I was going through all these Fountas and Pinnell books and found it there in one spot, in Clay, in Marie Clay’s wisdom. And I thought, ‘Okay Margaret, that teaches you go to the source’ (Margaret, Interview 1).

Margaret possessed the fewest years of experience teaching RR among the participants. Her first learning strategy when confronted with students who possessed meager knowledge and skills was to engage with the texts she had used prior to becoming a RR teacher, Fountas and Pinnell (2000). Not finding what she needed, she turned to Clay’s texts as a resource that was more specific to the RR knowledge she sought.

**Reading to deepen and share knowledge.** Conversely, Olivia and Tara referred to their reading of the common texts for intents different than text reading to solve problems of practice. Olivia recounted her participation in a teacher book-study group with colleagues at her school who were not RR teachers. She found herself rereading Clay’s texts with the intent to share a perspective of reading instruction that was different than the one promoted by the book that was studied by the book group:

She [author of book study book] used some research to back up why it [teaching phonics] is more important and why whole language is kind of nonsense although she didn’t say it that way. I found myself going to the book [Clay] because I felt
like, ‘wait a minute.’ So, I brought that up in the class, because you know, that book [Clay] is so powerful (Olivia, Interview 2).

Olivia’s intent for rereading the text was not solely focused on the improvement of her practice. Instead, her enactment of strategic processing related to text reading appeared to more closely resemble the MDL’s conception of late competence moving into proficiency in that she seemed read the common texts with the intent of presenting knowledge for discussion in a professional context (Alexander, et al., 1998). Olivia’s intent for reading the common texts seemed to be more for the purpose of deepening her knowledge to share with others other than reading to improve her practice. However, her intent behind sharing her knowledge to present a different perspective may signal her movement along the continuum between late-competence and proficiency, rather than her operation within either stage. Olivia’s knowledge did not appear as deep or conceptually rich as that of the TL, who operated within the proficient stage. It appears that Olivia may be demonstrating the dynamic process of expertise development characterized by transformation of expertise as teachers continuously movement along the continuum. That evidence may also speak to the blurred lines between stages, that stages currently conceived within the MDL may need to be further developed into smaller stages such as early, mid- and late competency to better reflect that dynamic transformation (Alexander, et al., 1995).

Other evidence seemed to indicate Olivia’s transformation as she continued to move through the stages along the continuum as well. My analysis of the data may indicate that as RR teachers transform their expertise and move along the stages of the
MDL continuum, they may perceive the text to be less important to their continued
development of knowledge needed for daily teaching. Olivia did not typically read the
common texts independently to improve her own practice. She required reminding by the
TL, “We tend to forget it [text]. But every time she [TL] assigns us something to read, I
think, ‘Why don’t I use this more often? Right here are my answers!’” (Olivia, Interview
2). Tara, another RR teacher who may be considered moving from the stage of late-
competence to proficiency, also characterized herself as “not much of a reader of the
texts [anymore]” (Tara, Interview 1). My analysis of the data evidenced that Tara may
have read and reread the texts to deepen and enrich her knowledge base, and she now
applies that knowledge in her sharing during RR conversations. Further examination of
the data indicated that Tara shared the most information throughout the Continuing
Contact sessions (Field notes) and that she was sought out as a more-capable other by
other RR teachers (e.g., Grace, Interview 2).

**Strategic Processing Summary**

Analysis of data suggested that strategic processing appeared to manifest as
different types of learning activities among the RR teachers. The types of strategic
processing in which the RR teachers engaged appeared to be related to the level of
interest demonstrated by the teachers in the type of strategic processing, as well as in the
knowledge gained by invoking the type of strategic processing. For example, if a teacher
was highly interested in developing deeper knowledge of theory, she could re-read Clay’s
text and use that knowledge to engage in dialogue or to solve a problem of practice, both
also types of strategic processing. However, a RR teacher may exhibit low interest in
engaging in a type of strategic processing, such as reading the common texts or in reflecting on notes, and not invoke those types of processes. What is less clear is how the relationship between interest and the type of strategic processing influences the teachers’ depth of knowledge.
CHAPTER V: FINDINGS

The MDL is a descriptive framework that proposes a multidimensional, multistage model of expertise in which there is interplay among the three components, and the interplay serves as a micro-process that facilitates the development of expertise, propelling the participants along a continuum of stages (Alexander, et al., 2004). In the previous chapter, the MDL was employed to analyze the data with the purpose of describing interest, knowledge, and strategic processing as each related to the participating RR teachers.

According to Yin (2009), analysis of the data related to sub-units of a larger case can offer a richer, more detailed understanding of what is being examined. In this instrumental case study, the examined phenomenon is the manifestation of expertise. To further understand the manifestation of expertise, as well as what aspects may or may not be illuminated by the use of MDL as an analytic framework, I chose to highlight the data from Olivia and Grace, two teachers with similar professional contexts but differing expertise. The data I collected regarding Olivia and Grace was especially generative. I was able to view each teacher in practice; via video clip, Olivia introducing a new book to a RR student and via a Behind the Glass presentation, Grace teaching a full lesson to a RR student. Additionally, Olivia and Grace often drove together to and from their schools to MidCoast Elementary. The drive, which lasted about 35-40 minutes, provided them an opportunity to talk and continue the dialogue from the Continuing Contact session. Moreover, Grace’s interview responses appeared to be expressed from a more emotional stance than those of the other participants.
The chapter is divided into two main sections. The first section is devoted to my analysis of the data from my observation of Olivia’s video taped lesson and of Grace’s Behind the Glass presentation. In that section, I present the complex nature of the teaching and learning within each context of practice, and how the situation within each context of practice required the teachers to synthesize information. The MDL provided a window into how Olivia and Grace each experienced the interaction among the three components of the MDL, thereby highlighting possible differences in the depth and robustness of their knowledge. I begin with a discussion of that data related to Olivia’s video clip, followed by a discussion of the data related to Grace’s Behind the Glass presentation. In the second section, I provide a summary of how the depths of knowledge appeared to manifest differently between these two otherwise similar teachers. Also addressed is their operation at different stages along the MDL continuum of the MDL and the possible role of emotions in explaining those differences. Illuminating the interplay of interest, knowledge, and strategic processing in the manifestation of expertise are Olivia’s book introduction followed by Grace’s Behind the Glass experience.

Olivia’s Video Clip of Book Introduction

To provide the first example of the complex, dynamic interplay of interest, knowledge, and strategic processing in the manifestation of expertise in RR teachers, I chose Olivia’s book introduction. The process of planning and conducting a book introduction provides evidence of how a short (two to three minute) seemingly simple component of the RR framework can serve as evidence of the complex interplay among
the three MDL components. The focus of the Continuing Contact session in October was the RR framework component of book introductions. During the Continuing Contact session, the RR teachers first engaged in dialogue in which they shared a variety of ways they taught students about text structures and potentially difficult words during book introductions. They also discussed the ways in which they use students’ RR books to promote specific teaching points. The TL provided guidance for the dialogue by reviewing the phrase, “hear it, see it, say it” as a way to frame the discussion around ways in which RR instructors go about teaching their students to search for three important sources of information: meaning, semantic, and visual. The TL also suggested that the phrase be used as a way to prompt students when teaching, or reminding to cross-check for information.

During that Continuing Contact session in October, the RR teachers initially engaged in learning about and discussing book introductions generally as well as engaged in activities that highlighted the purpose and procedures of book introductions. Following the dialogue, the RR teachers watched video clips of one another providing book introductions to their students. Each video clip lasted 2-3 minutes. To understand the nature of Olivia’s practice it is relevant to understand the context of book introduction within the RR lesson, therefore I offer a brief overview before my analysis of data related to the video clip of Olivia’s book introduction

**RR Book Introductions**

The RR book introduction occurs at the very end of a RR lesson and consists of instruction on selecting, orienting, and reading a new book. The day before the lesson in
which the new book will be used, the teacher selects a new book for a student using her analysis of the running record, daily lesson record, and writing book data. Thus, the book is selected for a specific purpose based on the analysis of the data. That purpose could be to consolidate the student’s work at a level, teach a new strategy at a level, or to nudge the student into a new text level. The RR teacher must carefully match new books to students and consider books that the student will want to read, will relate to personally, and will be able to use to establish new competencies. Thus, in selecting a new book, a RR teacher must possess interest in, and deep knowledge of RR knowledge, RR books used for teaching lessons, and RR students.

The day after the selection of the new book, the RR teacher plans and implements the book orientation. The RR teacher provides the student a one or two sentence summary, and word work specific to that student and to that book. She also aligns a teaching point using the book with her broader teaching point for the lesson. The book orientation at early levels (levels 7 or 8) consists of the RR teacher helping the student become familiar with the plot, the characters, unfamiliar text structures, unusual phrasing, unusual words or new words, or old words used in unfamiliar ways. An instructional reading level of between 90 percent and 93 percent accuracy is the ultimate goal of the first reading of the new book.

Prepared for success, the child attempts to read the new text, integrating new knowledge into his/her existing knowledge. Reading a novel text becomes "a testing ground for emerging strategies, consolidating some and opportunity for learning others" (Clay, 2001, p. 227). There are two goals for the reading of the new book: to afford the
student an opportunity to read continuous text with fluency, comprehension, and independence; and to afford the student the opportunity to solve words by searching for meaning, semantic, and visual information, coupled with thinking about the story. The new book serves as the running record book for the following day.

**Illustrating Proficiency: Olivia**

I chose to share Olivia’s book introduction because I found it to be illustrative of the complex, dynamic interplay among interest, knowledge, and strategic processing in a brief 2 minute and 37 second portion of an entire lesson. The data shared in the example can be found in Observation Field notes 10-09. In her introduction of the clip to the RR teachers gathered at the Continuing Contact session, Olivia stated that she “brought my student” who “struggled with problem solving new words because he pays too much attention to the visual.” She shared that the student “tended to get tangled with tricky words.” She also explained that he typically underused “meaning and semantics” and that she was “wondering how” to best instruct the student to integrate all three cueing systems so eventually, he could “read more independently.” Her broader teaching point was “cross-checking.” having him use one source of information to check information received from two other sources.

*Olivia’s book introduction: proficiency in practice.* In her introduction, Olivia’s interest in a type of strategic processing, seeking help from her colleagues, led her to purposely select a particular student about whom she had specific knowledge: that he relied on visual information and tended to ignore other information sources. Moreover,
Olivia’s interest in her student seemed to propel her to closely examine the data to gain this knowledge related to his reading strengths and areas of need.

I noted that Olivia did not use Post-it notes or notes on the table as some RR teachers who are less familiar with a book or with the structure of a book introduction often do. For instance, Margaret, a RR teacher with four years of experience (compared with Olivia’s eight years), stated when discussing her book introductions:

I often have a post-it note on the inside cover with a reminder written on it. When I introduce the book to someone, I remember, ‘Oh, this is a tricky part. I want you to understand this part. It’s important.’ That [post-it note] just helps me remember what I need to execute because I’ve done some pretty lousy book introductions, especially when I didn’t know the book well and felt overwhelmed.

The book that Olivia chose for the student contained the word, “shriek,” a word that Olivia knew would be tricky for her student, based on her analysis of the student’s prior reading performance, and would provide her with an opportunity to focus on her teaching point. It appeared that Olivia’s knowledge of the books from which she had to choose, combined with of her knowledge of her student’s knowledge, skills, and her understanding of teaching the student how to search for three sources of information to read and understand continuous text, prompted Olivia to choose that particular book. The book selection demonstrated Olivia’s interest in matching the instructional needs of her student, and in focusing on her teaching point (i.e., cross checking). Most likely, she developed prior knowledge of the particular word “shriek” in the book as a being a tricky word for RR students through myriad observations with multiple RR students, a type of
strategic processing. In my experience, I have seen RR teachers use the same books, or observe books used in lessons multiple times, and observe RR students stumble over the same tricky word in a book each time. RR teachers might also glean information about the difficulty or ease of the rest of the book for students in much the same way.

Olivia and her student sat facing the camera in the video clip. This position afforded the observing RR teachers a view similar to their view when they observe a RR teacher behind the glass. Olivia began her book orientation by teaching words that might present difficulty, and by calling the student’s attention to any text structures that might be unfamiliar or difficult for him. Olivia first told the student the title of the book and provided a two-sentence synopsis of the story. She proceeded to discuss each page of the book with the student and quickly relayed important plot points and information about the characters. When she arrived at the word “shriek,” she reminded the student that the bird character was a parrot that made loud funny noises. She ended her statement with a pause so the student could jump in with the word “shriek.” Olivia emphasized the word “parrot” in her introduction to help the student connect the words parrot and shriek, two words often used together. With the help of Olivia’s careful scaffolding, the student thought of the word, “shriek.” At that point, Olivia focused on her teaching point and prompted the student to cross-check, to search for three sources of information (i.e., meaning, semantic, and visual) and check one against the other two. She asked the student if shriek made sense (i.e., meaning). He nodded. She asked if shriek sounded right (i.e., semantic). He nodded. She then asked him to check with his finger to see if that word could be shriek (i.e., visual). He ran his finger under the word and affirmed that
it looked like shriek. She moved on and navigated the rest of introduction as she had before they encountered the word “shriek.”

The student read the new book aloud independently until he encountered the word “shriek.” He hesitated for a brief second and stole a very subtle, fleeting glance at Olivia. It was the type of reader behavior that would elicit a response from a RR teacher sensitive to the subtle behaviors of their students. At that point, Olivia made the decision to provide scaffolding for the student by quickly prompting him to search for one type of information (meaning), by prompting the student to think about the “loud, funny noises that parrots make,” invoking the same language from her book introduction. Following his response, she quickly prompted for a semantic use of the word by beginning a sentence and leaving the end of the sentence blank for the student to finish, “Parrots do make a loud, funny noise and that we call it a_____. ” The student immediately said, “shriek.” Olivia then prompted the student, “Are you sure? Does it look like ‘shriek’? How can you tell? What can you do to cross-check?” Here she gradually began to pull away parts of her scaffolding to ensure his success. Instead of telling the student to run his finger under the word and check the visual information, she prompted the student independently check the visual information against his other two informational sources. The student ran his finger under the word and read, “shriek.” Olivia prompted, “Tell me what you see that shows you that word is “shriek.” This allowed her to also gradually increase the student’s responsibility by asking him to explain his reasoning. The student explained that he saw /sh/ at the beginning and /k/ at the end. She then required him to

Here, Olivia's interest in and knowledge of the student, garnered from observations, running record data analysis, and daily lesson record notes (types of strategic processing), appeared to interact with her knowledge of the particular book, developed through multiple experiences, and with her deep knowledge of RR theoretical principles. The resulting premise seemed to be a perspective that reading is a problem-solving process, which she gained from engaging in dialogue, reading texts, and from observations of practice, all types of strategic processing. Olivia also carefully tailored her instruction to remain within the student’s ZPD, a practice developed and honed with multiple observations and feedback.

**Olivia MDL integration: illustrating proficiency in learning.** Throughout Olivia’s book introduction, her interest in her teaching point, using three sources of information to read and understand words while reading continuous text, and cross-checking, intertwined with her knowledge of her student’s instructional needs which was based on her assessment of his running record data and her daily lesson record observation notes, types of strategic processing used to learn about students. Additionally, her interest in, and knowledge about, solving words appeared to be embedded in the RR theories of reading as a problem-solving process, and that learning to read should be kept easy, which are taught through reading the common texts, through engaging with multiple research articles and presentations by the TL, through dialogic inquiry during and following observations of Behind the Glass presentation, colleague’s
lessons at each other’s sites, and TL observations of lessons at RR teachers’ home sites, as well as by attending RR conferences, each a type of strategic processing, demonstrating Olivia had fully engaged in over the past eight years.

**Illustrating Emerging Competence: Grace**

To further depict the complex interplay of interest, knowledge, and strategic processing as portrayed by the MDL, I will discuss Grace’s Behind the Glass presentation, which occurred in November, subsequent to the October Continuing Contact session in which Olivia shared her video clip. In contrast to Olivia, Grace appeared less focused on one teaching point, which interfered with her ability to scaffold her instruction to remain within the ZPD of her student. Examination of data suggested that scaffolding appeared to indicate depth of fluid, accessible knowledge of RR teachers. Here, it appeared that Grace did not seem to possess the same depth, fluidity, and accessibility of her RR knowledge to provide the same quality of scaffolding as did Olivia.

**RR Behind the Glass Presentations**

The RR Behind the Glass presentation consists primarily of three sections: before, during, and after. Throughout the before section, the RR teacher introduces to the group her student whom she is going to teach by sharing that student’s assessment data which consists mainly of the student’s most current running record, daily lesson record, and any other notes or data the RR teacher deems important. Throughout the during section, the RR teacher and the student engage in each of the components of a RR lesson on one side of the glass while the other RR teachers observe from the other side of the glass. The
after portion of the Behind the Glass presentation consists of the observant RR teachers and the TL providing feedback to the RR teacher who taught the lesson. Along with providing feedback, the entire group also engages in dialogic inquiry about the lesson, and other concepts related to literacy teaching and learning. Here I focus on the before and after section of Grace’s Behind the Glass presentation because those two sections most clearly illustrated the complex interaction of her interest, knowledge, and strategic processing. The data can be located in the Observation Field Notes from 11-09-2014.

**Grace’s Behind the Glass Presentation: Illustrating Emerging Competence in Practice**

Prior to her student’s (D’s) arrival for the Behind the Glass presentation, Grace discussed the student’s assessment data. RR assessment data consists primarily of running records of reading behavior and daily lesson records of the teacher’s tentative plan, notes on the teacher’s moves and student’s responses, and post-lesson reflections. During her introduction, it appeared that Grace’s interest in D and in his literacy learning served as a catalyst to examine the data, a type of strategic processing, which in turn appeared to deepen her knowledge of his current literacy ability in the areas of reading and writing. She shared, “He started a level 1, 92 percent and he’s now at level 7, 96 percent.” The percentage scores relate to the percentage of words the student got correct on the running record. This meant that D read independently at level 7, and needed little to no instruction to read and comprehend a text. Noting D’s success at level 7, Grace attempted to introduce D to the level 8, earlier that day. Grace’s interest in D’s success at his current reading level was informed by her analysis of his assessment data, a strategic
process for learning about her student. Her deeper knowledge of her D’s reading ability led her to make the decision to attempt a level 8 with the student. Grace knew that to accelerate D, it was necessary to move his reading to an *instructional level*, a level at which he would be reading with about 93 percent accuracy. That level would provide reading work for D that was not too easy or too difficult or frustrating, but would provide enough opportunity to engage with, and to learn reading strategies while still experiencing success.

Additionally, her interest in her upcoming Behind the Glass presentation that afternoon could have also prompted her to advance D’s reading level. An increase in level would provide her colleagues with an opportunity observe D reading the level 8 text aloud. If he read a text fluently and without error (which would be expected at his current level of 7), the other RR teachers would not have a chance to view how D processed text when he had reading work to do and the work was not too easy. She may have been interested in presenting D’s oral reading at an instructional level to garner feedback from her colleagues, a type of strategic processing, to facilitate her development of deeper knowledge about possible next instructional moves.

In her analysis of D’s reading data, she also “found that D is a better reader than he is a writer so there is a little imbalance there.” Grace employed her knowledge of the imbalance between D’s reading and writing ability, and her interest in balancing D’s literacy learning, to help her develop her a teaching point, a focus on writing letters and sounds in continuous text.
Grace’s interest in garnering more knowledge about developing her student’s ability to write words quickly in continuous text appeared to encourage her to use strategic processing when she spoke to the group. Specifically, she requested help from her colleagues:

I would like feedback on suggestions for activities that speed up the hearing and recording sounds in the writing. He knows the sounds for the letters and he knows how to make the letters, the letter formation, but in the midst of stretching the word out [while writing] it’s kind of slow and so I’m looking for suggestions on how to speed that up.

In that request, Grace demonstrated how her current knowledge of the student served to drive both her interest in how to better move the student forward, and her decision to seek specific help. However, there was a conflict between her teaching point and the help she was seeking. Moving students up a level in reading requires more demand on their cognitive ability to process receptive or print input. They will have fewer cognitive resources to allocate toward productive or text output, writing. By both moving her student up a level and focusing her teaching on hearing and recording sounds quickly, Grace did not align her teaching point in a way that would facilitate D’s acceleration.

At the completion of a Behind the Glass, the RR teachers are charged with providing feedback to the RR teacher who taught a lesson to a student behind the glass. Grace’s main concern was her student’s lack of ability to write through words and problem solve them as needed while writing continuous text. That is, he seemed to get
tangled up in both the phonemic and phonetic processing of written language when writing words for his story. She stated that her main teaching point would address that writing dysfluency. She requested specific feedback from the RR teachers regarding her teaching moves and student responses about her instruction with writing and word work, which are inextricably linked. However, she did not state that she had other reasons for purposefully choosing D, or other teaching points about which she desired feedback. She also moved her student up a level from that morning’s lesson, but in the Before Section, she did not mention that as a teaching point or an issue to address. Grace’s stated main teaching point of writing fluency introduced in the Before Section was not addressed in the feedback session. Instead, the conversation was focused on student’s shift from level 7 to level 8 and on Grace’s teaching moves in response to D’s reading behaviors. Her stated main teaching point was not addressed. It may be that Grace was unclear about her goal for the lesson. Additionally, her focus on the student’s shift from level 7 to level 8 may have been developed in practice, while teaching the student.

Following a round of praise given by the RR teachers, the TL suggested that they provide critical feedback about what they viewed during the session, “So let’s talk about what we thought of D as a reader and a writer, where we think he needs to go, and what he needs.” Grace seemed interested in sharing her knowledge about D’s reading behavior and why she chose the student for her presentation. It appeared that she was purposeful in selecting D because she was interested in gaining deeper knowledge about a reading behavior that he exhibited, and not in his writing dysfluency, and that it was actually her
interest in his reading behavior that drove her to seek knowledge from the TL and colleagues:

I don’t mean to interrupt, but one of the reasons I was happy that D was able to come today is to show you all that when I bring up a reading strategy, I write it on his bookmark, and then he verbalizes it. And now it’s gotten to the point where I have to stop him and say, ‘You know the different strategies that you need to do and you know why you need to do it but now you need to do that thinking in your head.’ I am not sure what to do. He won’t stop verbalizing.

Linda offered Grace a suggestion. She explained that Grace might try explicitly telling D that they will, “talk about the strategies when we are done, but now let’s focus on the story.” Grace acknowledged Linda’s idea with a slow nod. Grace appeared to contemplate what D might be thinking as a student in his situation:

I am thinking he needs a little bit more time to just talk about his own processing maybe? Maybe he is thinking, ‘Ok, I just need you to tell me what I need to do and I will keep that in my mind by repeating it over and over.’ But I want him to just do it.

In this response, I saw Grace’s interest in and knowledge of D prompt her to question Linda’s suggestion to direct D to read the story and then talk about his strategies. Grace also demonstrated her knowledge of D’s need to audibly repeat the strategies that she prompted him to try when he became tangled or bogged down, a behavior that is often exhibited by RR students who experience difficulty with learning to read.
Olivia then offered Grace a suggestion that appeared to build on Grace’s current understanding of the issue, “I wonder if you should do that [Linda’s suggestion of requiring D to process silently rather than verbalizing processes] but at lower levels? Maybe not go to the higher levels, not yet.” Olivia’s suggestion was followed by discussion among the group of RR teachers about D’s reading behaviors and possible teacher moves, including cross-checking, family literacy habits, flexibility with strategies, and attending to meaning before using visual cues. Toward the end of the discussion, Linda said, “So familiar reading of a lot of easy texts, he may get the sense of you know, phrases and story.” Grace replied, “That is definitely something I am going to do, drop him back some levels. He’s not ready [for level 8]. I tried it.”

At the end of the exchange, I noted that Grace made a decision based on knowledge garnered from her dialogue with her colleagues. She did not base the decision about dropping D’s reading level back some levels on her knowledge gained from her analysis from D’s current running record data, his writing book, or her daily lesson record. She completed his most current data collection during the Behind the Glass session and had not yet completed the analysis. Moreover, he had completed only one level-8 book. There is a wide range of levels within levels in RR books. Grace could try easier level-8 books that were more targeted at D’s specific instructional needs. She had already stated that level 7 books were at an easy level (96 percent) based on running record data.
In another part of the discussion, Tara queried about the writing portion of the observed lesson, “I had a question about dividing words into syllables in the journal. Was there a particular part there that you would have to do that?”

Grace replied, “In one of the discussions that we had [in a previous Continuing Contact session], we talked about some ways that you can have the kids practice breaking words into syllables and you [directed to the TL] said, “I just do it in their writing.”

The TL responded, “I meant clap.”

Grace responded: They clap the syllables. So they, oh. I just started doing it [practicing syllables on the writing page] and it seems to make a difference with kids learning to break words. It’s a meaningful way to just practice one word, two words, whatever his sentence is.

Here I saw Grace clear up a misconception for herself and thus, gain richer conceptual knowledge by engaging in conversation with Tara and the TL (a type of strategic processing). Grace’s interest, sparked by Tara’s question, may have helped her gain new knowledge [or remember previously known knowledge] about clapping syllables within the context of the dialogue.

**Grace’s MDL Integration**

In her analysis of D’s reading data, Grace “found that D is a better reader than he is writer so there is a little imbalance there.” Here, Grace employed her knowledge of the imbalance between D’s reading and writing ability, and her interest in balancing D’s literacy learning, to help her develop her a teaching point, a focus on writing letters and sounds in continuous text. Grace’s interest in gaining knowledge about developing her
student’s ability to write words quickly in continuous text appeared to encourage her ask for targeted feedback, a type of strategic processing, when she spoke to the group (quoted above). By her request Grace demonstrated how her current knowledge of the student served to drive both her interest in how to better move the student forward and her decision to seek specific help. However, there was a conflict between her teaching point and the help she was seeking. Moving students up a level in reading requires more demand on their cognitive ability to process receptive language or print input. They will have fewer cognitive resources to allocate toward productive text output, writing. By both moving her student up a level and focusing her teaching on hearing and recording sounds quickly, Grace did not align her teaching point in a way that would facilitate D’s acceleration.

**MDL Integration Summary: Olivia and Grace**

Examining the data for Olivia and Grace suggested that the MDL served to illuminate how each participant enacted her professional interest to deepen her knowledge using a variety of strategic processes, e.g., analyzing student data to gain deeper knowledge of students; engaging in dialogue with RR colleagues and the TL. Also illuminated in the data was the differing nature of their knowledge. Based on data related to their scaffolding of each student, Olivia provided scaffolded instruction that would help propel the student forward. She remained focused on her teaching point, and her teaching decisions allowed her to remain within the student’s ZPD. In contrast, Grace’s scaffolded instruction did not appear to remain within her student’s ZPD, and her teaching point was less clear and more scattered. As stated in Chapter Four, scaffolding
student instruction is the point where RR teachers demonstrate their fluid, flexible, accessible knowledge. Grace’s knowledge of word work, writing fluency, reading levels, and her student did not appear to be as connected and focused as did Olivia’s knowledge, thereby preventing Grace from providing the necessary scaffolding that would propel her student forward. Grace’s student seemed to working too hard with concepts that were too difficult in some areas of her lesson. Her readjustment of her teaching did not situate her instruction within her student’s ZPD. Despite the similarity of their professional demographics, Olivia exhibited a deeper, more conceptually rich, fluid, and accessible knowledge base than did Grace. However, what remained less clear are reasons for that difference. The MDL did not serve to fully illuminate why two such similar teachers differed in their ability to scaffold instruction and remain within a student’s ZPD.

**Olivia and Grace: Operating at Stages within the MDL**

As stated earlier, the MDL is a descriptive multidimensional, multistage framework of expertise that attempts to portray expertise as a complex, dynamic, ongoing process that develops along a continuum of stages. The framework should call to mind a fluid, continually moving, development of expertise that becomes deeper and more robust with changes in an individual’s interest, in knowledge that becomes more interconnected and conceptually rich, and in types of strategic processing that deepen. The framework proposes the transformation and movement of an individual’s expertise through stages, from acclimation, to early, mid-, and late competence, to proficiency. The competence stage is considered the one at which most individuals remain for most of their academic learning, and it is considered a perfectly acceptable stage in which to remain. Very few
people actually reach proficiency and demonstrate the hallmarks of expertise in their field. Operating within the stage of competence means one can competently meet the expectations of a particular academic domain. However, because competence covers such a large portion of individuals within academic domains, separating competence into stages of early competence, mid-competence, and late competence helps individuals better understand the manifestation of expertise within the competence stage. Working within the acclimation stage means an individual is gaining the foundational knowledge necessary to move to early competence.

I identified Olivia as operating in the late competence stage, nearly proficient, depending on the specific RR topic knowledge with which she is engaged, and Grace as operating in the acclimation stage. However, Grace also seemed to toggle between acclimation and early competence depending on the specific RR topic knowledge with which she is engaged. I will illustrate this identification using the examples presented above.

Instruction Within ZPD vs. Instruction Outside of ZPD

My analysis of data regarding the teaching points of Olivia and Grace seemed to reveal a difference in how each teacher scaffolded her instruction to remain within the ZPD of each student. Olivia’s teaching point was focused, based on her individual interest in her student’s reading knowledge and skills, which prompted her to seek deeper and more principled knowledge of his reading ability by carefully examining his assessments, a type of strategic processing. To make sense of the data, she called upon her RR topic knowledge that appeared to deepen her interest in her focused teaching
point, searching for information and cross-checking. Olivia’s teaching point seemed to reflect her high level of professional interest that led her to gain deep knowledge of RR theory regarding reading as a problem solving process, that was deepened mostly as a result of her interest in engaging in dialogue and taking extensive notes, both types of strategic processing. My analysis of the data suggested that Olivia’s access to flexible, fluid knowledge might have been instrumental in how she enacted scaffolding to remain within the student’s ZPD, and accelerate his progress by implementing through a gradual release of responsibility. What appeared important was her ability to link her interest to the type of strategic processing she pursued, and the deeper knowledge she sought. For example, when she was interested in understanding her student’s instructional needs, she used the assessment data, a type of strategic processing, to deepen her knowledge. Additionally, when she was interested in providing her student with a book that offered an opportunity to work on one powerful teaching point, she invoked her deep knowledge of the RR lesson books that she gained from repeated observation and instruction of myriad students, as well as to attending to their behavior while reading specific books, types of strategic processing embedded in practice.

Olivia’s flexible, accessible knowledge was also employed in helping Grace continue to learn and develop. She scaffolded Grace’s learning by questioning, probing, and prompting Grace to talk about confusions, misconceptions, and lesser understood elements of RR. In their shared ride home, Olivia questioned Grace about her decision to begin the Behind the Glass experience with writing the alphabet. She told Grace that
perhaps only attending to the letters and sounds nearly known by the student would be a more efficient use of her lesson time.

Olivia was also a sought after voice in the dialogue throughout Continuing Contact sessions. For example, when discussing word work, she reminded the other RR teachers about the importance of teaching students to look at words by using words that are known by the RR students, before introducing the concept of problem solving words. She shared her thoughts, “Use words they [RR students] know, but using those words to teach them to look. You brought that up last year [TL]. But when you get into upper levels, can you get into unknown words?” She often provided insightful comments that helped other RR teachers further develop their knowledge. Subsequent to her book introduction, the TL specifically asked Olivia, “You did a nice job with the word ‘shriek’. Can you tell us about what you did?” Olivia responded in a way from which RR teachers could learn, “I knew that would be hard. Birds don’t usually ‘shriek’. In my introduction, I told him that sometimes, parrots do make a loud, funny noise and that we call it a . . . He came up with shriek. He heard it, he said it, then he saw it and cross-checked” (Fieldnotes)

In contrast, Grace’s teaching point was scattered and less focused. Grace’s interest in D’s success appeared to prompt her to analyze the data acquired from his running records and writing book, types of strategic processing. Grace planned her teaching point of increasing writing fluency based on her knowledge of the student and her RR topic knowledge. However, what is unclear is how Grace arrived at the teaching point about writing, while at the same time she moved up D in reading levels. That choice
appeared to indicate that Grace is still developing her knowledge of how struggling readers develop their literacy knowledge and skills. Also, what remains unclear is why Grace made particular teacher decisions and moves *in situ.* That is, in many of her real time interactions with D, Grace did not scaffold her instruction in a way that would accelerate D’s progress as he engaged in the problem solving process of reading and writing. Grace often made the decision to engage in activities that were either too easy (e.g., writing and saying each letter of the alphabet) or too difficult (e.g., selecting a text as a new book that appeared to be too hard). Grace thus struggled to remain within D’s ZPD, and was often instructing outside D’s ZPD. It seemed that Grace did not possess the deep, flexible, accessible knowledge necessary to effectively scaffold the student’s instruction.

**Knowledge Generator vs. Knowledge Consumer**

The MDL proposes that a hallmark of individuals operating within the proficiency stage is the generation and public sharing of knowledge with the field at large by presenting at research conferences, writing articles, or authoring books, (Alexander, et al., 2004). Using that representation, Olivia, operating at late competence, often crossed into proficiency as her high levels of professional interest led her to seek opportunities to deepen and share her knowledge. As per her interviews, in her classroom practice, Grace sought opportunities to deepen her knowledge and share her expertise with colleagues, in RR, Grace appeared to be operating in the acclimation stage, often crossing into early competence in some specific topic knowledge areas in which she was engaged. Grace
appeared to be interested in learning from more-capable others as her most preferred type of strategic processing, and less interested in generating and sharing RR topic knowledge.

Olivia and Grace often commuted back and forth to the RR MidCoast Elementary site together. They completed RR training together and had developed a friendship over their eight years of RR teaching. Often, they discussed RR on their way to and from the site, about a 40-minute drive on rural roads along the rocky coast. In fact, they drove home together after Grace’s Behind the Glass presentation. Grace shared with Olivia that she was unsure about her the writing fluency activity that she requested of D at the beginning of her presentation. She asked D to write and say each letter of the alphabet. Olivia provided Grace some advice and in doing so, shared her knowledge, “I told her I thought maybe she could find out what letters he does have down, that he can write really fast, and just write those” (Olivia, Interview 2). Here, Olivia demonstrated her knowledge of working from a student’s strengths, and what she/he has under control (Clay, 1993).

Additionally, Olivia suggested that Grace move her student to earlier levels to practice non-verbal processing. Olivia did not focus on Grace’s teaching point related to fluent writing. Olivia’s interest in sharing her deep knowledge of RR students and theory led her to also advise Grace on the larger issue of a reader’s ability to silently and quickly search for three sources of information. My analysis of the data evidenced that Olivia appeared to know to keep the reading easy, and focus the teaching point on the student’s cross-checking behavior. She demonstrated that she possessed deep, flexible, accessible knowledge about students who struggle with early literacy, and how they often need one
of the tasks, either reading or writing, to be kept easy, while they learn new concepts about the other (Clay, 1991, 2006).

The MDL also proposes that individuals within the stages of acclimation or early competence are still learning and developing conceptual knowledge (Alexander, et al., 2004). Individuals at that stage are interested in gaining knowledge, but may not yet be as conceptually structured or organized as an individual within the stages of mid- to late competency. As such, Grace did exhibit instances of the interaction of interest, knowledge, and strategic processing, although her knowledge did not appear to be as conceptually rich or as interconnected with the types of strategic processing as did Olivia’s. For example, Grace experienced confusion about when and how to use clapping and how to break words into syllables in ways that provide a student with a better understanding of how words work. That confusion appeared to unveil conceptual misunderstanding about how to teach a student to read and understand words. In that instance, Grace gained deeper knowledge during her process of engaging in dialogue with the TL and other RR teachers. Moreover, Grace previously stated that reading the common texts on her own, a type of strategic processing, was difficult because the texts were too wordy. Instead, Grace acknowledged that she preferred her reading of the common texts to be mediated and guided by the TL. However, not reading the common texts herself, a type of strategic processing, may indicate Grace’s lack of interest in invoking that particular method, which in turn, could have influenced the quality of Grace’s knowledge base.
As explained earlier in this chapter, my analysis of data suggested that Olivia seemed to be operating mostly between the stages of late competency and proficiency, depending on the knowledge with which she was engaged, and Olivia seemed to operating mostly between the stages of acclimation and early competence, also depending on the knowledge with which she was engaged. Their differing stages could indicate that, in spite of their similarities, Olivia and Grace seem to be experiencing different progressions along the MDL continuum.

Upon further examination of the data, I noted a qualitative difference between the responses provided by Grace and those provided by Olivia. It appeared that, in her responses, Grace presented more emotions at more intense levels than did Olivia. When relaying a disturbing or moving incident, Grace’s eyes often filled with tears. She sometimes whispered words that seemed to cause her discomfort while glancing around the room as if checking to see if someone else may be listening. She also expressed enthusiasm and excitement with her body and voice. She could hardly contain her actions in showing me her materials she created for her classroom, jumping up from her chair, pulling boxes of shelves, and sharing her creative endeavors with me. Additionally, Grace’s voice and tone clearly communicated her emotional feeling regarding the situations or examples she shared. Most of Grace’s emotions, however, were in response to negative experiences. In Chapter Four is Grace’s response to my question about what piqued her interest in becoming a RR teacher. She shared the story of two boys for whom reading was difficult and left her classroom as still struggling readers. Also, in Chapter Four, I shared Grace’s response to my question about how she takes on learning as a RR
teacher. She spoke about her training-year experience and how her feelings about that year led to her current “unsuredness” as a RR teacher.

It seemed that emotions could have some role to play in how Grace experienced her expertise development. I noted in the data that many of Grace’s responses were laced with emotion. For example, her voice broke; she appeared to be near tears. She whispered when she spoke about how she or other classroom teachers might fail in their attempts to do the best job for their students. Moreover, Grace revisited her emotional responses. That is, when two different questions were asked about a separate experience related to becoming a RR teacher, Grace would hearken back to specific feelings or emotional episodes already shared (Interview 1; Interview 2). For example, when asked about an instructional strategy she used to help students with reading fluency, she shared that she wouldn’t share that particular instructional strategy with other RR teachers. She discussed the fact that this might not be a RR sanctioned strategy and referenced her fear of being reprimanded during her year of training, an experience to which she alluded to respond to a different question in a previous interview.

**The Role of Emotions**

Although the MDL includes interest as an affective component, the component of interest may not fully capture the intensity of emotion related to how Grace experienced the development of expertise. Because the MDL did not have the capacity to help me fully understand the influence of emotions on the developing of expertise of RR teachers, I turned to the literature regarding the dynamic relationship between teacher emotions, teacher practice, and teacher learning. More specifically, I turned to Schutz (2014) who
provided a framework for considering the influence of teachers’ emotions on their learning within their learning contexts. Schutz offered the frame of emotional episodes with which to examine the relationship among emotions, cognition, and motivation. He argues that everything that happens in the life of a teacher contributes to the process of learning to teach and maintains that understanding the emotional lives of teachers within the context of their learning environments is essential foundational understanding for those who desire to understand how teachers learn to teach, and further develop expertise. Schutz suggests a teacher’s emotions are socially constructed, and emerge within the context of a teacher’s daily practice. Therefore, the emotions that emerge from the practice-embedded learning experiences (such as those promoted by RR) have the potential to influence his or her expertise development. Schutz proposed a descriptive model of teachers’ emotions as emotional episodes. Teachers find themselves in activity settings in which many complex interactions take place. As they interact with a situation, they continually judge their goals, standards and beliefs by the goals, standards, and beliefs warranted by the situation. They must often cope with the tension between their judgments and their perception of others’ judgments. The resulting feeling from this interaction of one’s judgment of a situation and how one coped with the results of judgment creates an emotional episode (Lazurus, 1999; Bandura, 1997). Using the framework of emotional episodes, I attempted to provide insight about the relationship between Grace’s emotional responses and her expertise development.
Grace’s Emotional Episode

As stated earlier, many of my questions elicited emotive responses from Grace. However, I chose to share my examination of an illustrative, relevant emotional episode in Grace’s expertise development that revealed the most instances of emotive responses. This episode, that took place during her teacher training year, included Grace’s judgments of her goals, standards, and beliefs, her perception of the goals, standards, and beliefs of her learning contexts, and the feelings that arose as a related to how she coped with those judgments. My analysis of the data related to this episode revealed that Grace may have experienced shame, and that feeling of shame could have had lasting consequences in her development of expertise. In the following sections, I first place the episode within Grace’s learning context and share how it related to her expertise development. I then demonstrate the relationship between the Grace’s emotion and the MDL. Finally, I show how Grace’s emotions related to this episode may have had lasting consequences.

Related to expertise development. I asked each teacher a question pertaining to how she thought about the way she learned had changed over her career as a RR teacher. Grace answered the question of how her learning RR had changed over time in an unexpected way. She became very quiet and looked off in the distance as if trying to remember or if trying to decide how to go about answering the question. She then sighed, leaned toward me, laid hands on the table in front of her and responded to the question. She alluded to the fact that this was a salient memory and it appeared she might have been looking for an opportunity to share it. Grace shared, “I want to tell you something it
took a long time for me to get over. The teacher leader that we had [for our training year] was very critical of the experience that we brought to the table” (Grace, Interview 1). She continued:

She [TL during training year] did not want me to bring any experience from my past. I could tell by not only by what she said to us [Grace and another classroom teacher from a different school who was training with her], but also to other people, so it wasn’t just us. I felt like we really couldn’t verbalize. Having said all that, that’s the part I had to get over. I was trying to bring in things I knew from teaching. Finally, I just didn’t say anything because I kept getting shut down. So I still, I still was feeling [she trailed off]. I am still hurt and I’m still dealing with them [feelings] but I’m a big girl. That’s where a lot of my unsuredness comes from, because the connections that we were making were not validated and I couldn’t verbalize them. I didn’t want to be embarrassed and I didn’t like being reprimanded (Grace, Interview 1).

This emotional episode during her training year produced negative emotions of embarrassment and humiliation for Grace, both related to shame. She expressed her desire to share how she recognized the need for a spelling/phonics program in her classroom, collaborated with other classroom teachers and her building’s RR teacher to develop a program based on practices similar to RR, and how she felt her program was a success. She sought validation for the connections she made. Instead, she was “shut down.”
Through my examination of the data using Schutz’s (2014) framework, it seemed that Grace made a judgment about her goals of improving her literacy practice, her standards of related to her students’ learning outcomes, and beliefs about her conception of spelling and phonics, and compared them to her perception of RR’s goals, standards, and beliefs of word work and she found them to be relevant and congruent. However, Grace’s judgments about her classroom experience were not analogous to how the TL viewed her classroom experience. Grace attempted to cope with that incongruence with continual attempts at sharing, but she perceives herself as being “shut down” by the TL, resulting in her feeling “humiliated” and “embarrassed.”

Related to the MDL. Further analysis of data revealed that Grace’s embarrassment and humiliation led to waning interest in learning about RR word work. RR word work is most closely related to the spelling and phonics about which Grace had developed the negative emotions. Grace explained her waning interest further:

No one in our training year did anything but letter sorting. Nobody. So, my first couple of years of doing Reading Recovery, after the training year, I didn’t do magnetic letters. After I did the word visually, I might use the letters on the table to make “look” or “looking” but I wouldn’t do it on the white board. Then I saw someone else do it [complete more complex word work at the white board with a student] and thought, ‘It must be ok to do it now.’ It validated what my gut tells me these kids needed. My gut was telling me that is what these kids needed to do.

Here, further examination of Grace’s emotional episode revealed how her emotional reaction to the negative circumstances interwove among the interplay of her
interest, knowledge, and strategic processing pertaining to word work and the use of magnetic letters. Her interest seemed to be in teaching students more complex concepts than letter sorting, and she may have felt that her knowledge about spelling and phonics provided her some insight to how she might go about using magnetic letters for teaching more complex concepts. However, her spoke to her lack of interest in RR word work as presented by her TL during her training year: “No one in our training year did anything but letter sorting. Nobody.” Because no one did anything beyond letter sorting in her training year, Grace did not go beyond letter sorting, and did not seek to develop her knowledge. Her feelings of shame may have influenced her resulting the type of strategic processing she was willing to invoke and the depth of the knowledge she could potentially develop. Grace relayed that she became timid in her use of the white board and of magnetic letters for years after her training year. In fact, after eight years of teaching RR, the data evidenced that Grace continues to rely on a scaffold provided by her current TL to work with magnetic letters at the white board, something I will discuss further in the next section. Evidence presented earlier regarding her ability to focus her teaching point and provide instruction within her student’s ZPD may indicate that Grace could still be in the acclimation stage regarding the use of word work.

**Related lasting consequences.** Grace discussed word work with me at length in response to a question about RR knowledge. In her own RR room, at her own school site, Grace shared her strategies, methods, and materials related to word work, including a document given to her by her TL. The document listed broader, conceptual principles about word work, along with exact language to use with RR students as they and the RR
teacher use magnetic letters on the white board. Grace shared how that document helped her understand the principles of word work:

Here is another scaffold that TL has shared with us that is so meaningful and validates what I feel that the kids need to move to an independent level of problem solving. She [TL] gave us this scaffold about word work. These are the kinds of principles that kids should be made aware of about words so they can use one principle to help them solve many different words. [using the language a RR teacher would use with a student] TL said, ‘you can have these long vowel sounds when two vowels are together. Let me show you some examples.’ Now, whenever I notice something that they [RR students] are struggling with a word part, I think about what is it that they need to look at [the principle] and I will take it to the magnetic letters and do some word work with it [using the language from the sheet]” (Grace, Interview 2).

In that statement, Grace speaks about her validation from her current TL, seemingly reflecting on her training year in which her knowledge of student’s word work was not validated. Here, Grace seemed to still be coping with her embarrassment and humiliation from her training year. I asked Grace if she noticed a change in her RR students since she started using the scaffold. Grace responded with great enthusiasm, her voice registering her excitement, “Oh my gosh, oh my gosh. It’s incredible. It’s having them practice taking the word apart and putting it back together, not letter by letter but by parts [onset, rime, or affixes]. This just makes so much sense.”
The majority of emotions expressed in Grace’s responses were mostly negative. Schutz (2014) points out, however, that emotional responses have the potential to be positive as well. Here, it seemed that Grace’s heightened interest, as evidenced by her embodied enthusiasm, in deepening her knowledge about word work was sparked by a scaffold provided her TL. The scaffold might have provided Grace the language with which to impart word work principles to RR students. Intertwined among the three components of the MDL and seemingly influencing Grace’s deepening understanding and general goodwill toward using magnetic letters [not historically her stance] was her enthusiasm resulting from a positive emotional episode, as well as associated with her TL, with the scaffold, and with her success.

Schutz (2014) pointed out that all emotions, positive and negative, are the results of teachers’ judgments of goals, standards, and beliefs, their judgment of the goals, standards, and beliefs required by the learning context, and how they cope with the results of their judgment. Emotional episodes take place within learning contexts, thereby creating their potential to influence expertise development. In the following instance, Grace discussed her use of commercially made phrase cards and sight word cards. She seemed to allude to the influence of those emotions on her expertise development:

I do have some other cards I have used in the past, not only for phrasing but for sight words [commercially made phrase cards] sometimes I don’t know if it’s appropriate, no, let me go back, sometimes I don’t share things at the meeting because I don’t want someone to tell me that’s not what we do at Reading
Recovery, going back to the time that I got reprimanded. I hadn’t thought of that until now (Grace, Interview 2).

Grace’s participation in the interview process appeared to help her reflect on her emotions she still felt from her training year. Because in the common texts, Clay did not expressly state whether commercially made cards (and not cards created from the student’s own language) are acceptable or not, Grace seemed torn about whether she had permission to use them. More to the point, she refrained from sharing their use at Continuing Contact sessions. The data showed that Grace trusted her current TL and her colleagues, but the emotions experienced during her training year remained salient in her mind. It could be that her past negative emotions of embarrassment and humiliation inhibited her ability to share for fear of being reprimanded, perhaps accounting for her present “unsuredness,” and in turn, may have impeded her expertise development. Sharing and engaging in dialogue, asking questions of colleagues, and collaborating is the primary avenue by which RR teachers develop expertise. Grace appeared to still be suffering the repercussions of her earlier emotional episode. She was not fully participating in engaging in dialogue, one of the most important types of strategic processing offered by the RR instructional model of teacher learning.

**Summary of the Role of Emotions**

Using the frame of emotional episodes with which to examine the relationship among emotions, cognition, and motivation, I noted that Grace appeared to evidence the dynamic relationships among teacher emotions, teacher practice, and teacher learning (Schutz, 2014). In response to questions, Grace reflected on negative and positive
emotions at myriad levels of intensity. Her most powerful, most lasting emotions were negative, and experienced during her training year. She suggested that her current “unsuredness” and fear of reprimand stemmed from training year experiences. Those emotions seemed to be related to the discrepancy between Grace’s judgment of her own understanding of teaching literacy to young students, and her perception of her TL’s judgment of Grace’s understanding of teaching literacy to young students. Grace believed she possessed important prior knowledge to contribute to the conversation, and judged that her TL was not interested in that knowledge. As a result of that judgment, Grace felt embarrassed and humiliated, and doubted her prior knowledge. In response to those emotions, Grace “shut down” by not sharing or engaging in dialogue. Because RR teacher learning is based on dialogic inquiry that requires RR teacher engagement, the shutdown could have created a barrier to further learning. Grace stated she still feels “unsuredness” about her practice, and she appeared to shy away from fully participating in dialogue among her colleagues, which is inherent to the RR instructional model of teacher learning.
CHAPTER VI: CONCLUSION, DISCUSSION, AND IMPLICATIONS

The purpose of this study was twofold: to better understand the manifestation of expertise among a group of RR teachers and to explore the use of MDL as an analytic and descriptive framework for examining the manifestation of expertise. The intent was to begin to understand the relationship between the cognitive activity of those teachers and the sociocultural context of the RR instructional model of teacher development in which they learned. I sought to understand the capacity of the MDL as a descriptive and analytic framework to illuminate the manifestation of expertise among the RR teachers.

The inquiry was guided by the following research questions:

1. When examined qualitatively and multidimensionally, how is expertise manifested among eight RR teachers who are located in rural, northeast, coastal elementary schools, sharing the same teacher leader, and continuing contact experiences?

2. What is the capacity of the MDL to illuminate previously undiscovered aspects of the manifestation RR teacher expertise?

3. What constructs of the MDL may be in need of further conceptualization for the model to more thoroughly describe expertise in complex, ill structured domains?

To explore those research questions, I applied qualitative case study methodology to collect and analyze data. The case study was instrumental in nature and was employed to better understand the manifestation of expertise among a group of RR teachers. Data sources included collected responses to one emailed questionnaire, responses to two semi-structured interviews and completed field-notes of four observations of the RR teachers’ Continuing Contact sessions. Member checks with participants were conducted.
twice during data collection and data analysis phases to helped confirm and (or) disconfirm my own interpretations and conclusions of emergent themes and findings. Members read through the transcripts and subsequently read through my interpretation of the data.

**Guiding Perspective of Expertise**

For the purpose of this inquiry, I conceptualized expertise as a multidimensional, developmental model of professional learning. Further, I viewed expertise as an ongoing process that develops through a series of transformations along a continuum of stages. To examine the manifestation of expertise of the participants, I applied the MDL, a descriptive and analytic framework that proposes expertise development as a series of transformations through stages along a continuum of acclimation, competence, and proficiency, and is animated by the interactions of interest, knowledge, and strategic processing. The MDL conceives of expertise as dynamic, continual and ongoing. In my investigation, I suggested that expertise among the RR teachers seemed to manifest through the integration of professional interest, topic knowledge, and contextually adaptive strategic-processing. RR teachers’ types of strategic activity and topic knowledge were examined in light of their developing professional practices rather than in the context of their engagement with texts, the most typical conception of knowledge development proposed by the MDL (Alexander, 2004). RR teachers learn in practice, for practice, with their knowledge grounded in and enhanced by shared reading of common texts. The common texts serve as guidebooks, not as the primary avenue for learning.
common texts do not substitute for the practice-based RR teacher learning about RR student learning.

Differences among the teachers with respect to levels of expertise were realized in distinctions between topic knowledge and strategic processing. All teachers in this sample shared heightened professional interest, a hallmark of proficiency. In the following sections, I describe the heightened interest of all teachers, the depth and conceptual richness of the teachers’ topic knowledge, and the types of strategic processing invoked by the teachers. I also examine interaction among those three components in the manifestation of expertise. Finally, I discuss the role of emotions differently influencing the expertise development of the teachers.

**Role of Professional Interest in Expertise Development**

Alexander et al., (1995) indicated individuals who possess more fleeting, transient situational interest tend to be operating in the acclimation stage of expertise development, and experience difficulty reading and understanding texts that are less personal and sensational, but are more abstract and central to the domain. Further experience within a domain leads to a shift in learners’ interest from situational to individual, a heightened level of interest in more specific aspects of the domain that may lead to a deepening of knowledge (Alexander et al., 1995). That shift also signals the transformation of expertise from acclimation to competency. As learners’ expertise transforms from competency to proficiency, Alexander (2003) suggested that individual interest becomes professional interest, the most focused, sustained interest. That transformation in interest is related to the development of principled, conceptually rich knowledge. As Palmer et al., (2005)
observed, “Experts…appear to seek out opportunities for deliberate practice and mastery within their domain” (p. 15). Such experts seek “purposeful engagement,” which is “characterized by both direct instruction and extensive reflective practice by the individual who is motivated to acquire the expertise” (p. 15). The participants in my investigation demonstrated their desires to seek out learning opportunities, and their motivations to acquire expertise in teaching literacy before becoming RR teachers.

**High levels of professional interest.** Alexander (2003) described professional interest as sustained, goal-oriented interest in the specific aspects of topic knowledge, often aligned with stages of competence and proficiency. It is also related to the ease of comprehension and depth of knowledge an individual possesses with respect to topic and domain knowledge (Alexander et al., 1995). Further, Alexander (2003) noted that professional interest is often related to the academic degrees and certificates held by individuals that are not required for their careers. Examination of the data in this investigation suggested that before becoming RR teachers, the RR teachers in this study demonstrated sustained, goal-oriented, professional interest in both teaching and learning literacy, and in RR knowledge that is reflective of later stages in the MDL continuum. Moreover, their professional interests in teaching and learning literacy appeared to influence their development of professional interests in RR.

**Context influences interest.** Interest relates to the willingness of a learner to repeatedly return to engagement with content (Hidi & Renninger, 2006; Renninger, 2000). Interest occurs in relationship to learners’ development of knowledge about concepts or ideas within a learning environment, and is “malleable” (Renninger &
Bachrach, 2015, p. 59). That is, aspects of the learning context are influential on individuals’ interest, and that interest is integral to individuals’ quantity and quality of knowledge. Prior to becoming RR teachers, the participants appeared to experience a shift from possessing general interests in teaching literacy to possessing high levels of professional interests specifically in the models of teaching and learning literacy. Among those influences were models developed by the Early Literacy project at Ohio State University (Fountas & Pinnell, 1995); approaches to reading emanating from New Zealand (New Zealand Ministry of Education, 1996; Clay, 1993); Cunningham and Allington’s *Classrooms That Work* (Cunningham & Allington, 2006); and Cunningham, Hall, and Sigmon’s (1999) *Four Blocks Framework*. Each of those models was theoretically aligned with RR. The participants seemed to find those approaches compatible with their views regarding the active and engaged nature of student learning, and the role of the teacher in a student-centered model of instruction. The participants were steeped in those models of teaching and learning literacy in their schools, and in the state university where they sought their graduate degrees and professional development. Thus, as noted in earlier chapters, prior to joining RR the teachers taught and participated in opportunities of continued learning in contexts that promoted RR.

Moreover, these teachers focused their efforts on struggling readers as they taught and learned in contexts that promoted RR. These contextual influences appeared to play a role in their development of professional interest in RR knowledge before they became RR teachers (Clay, 1987; Pinnell, 1997). The participants acted on their developing professional interest by interacting with RR teachers and engaging with RR concepts and
principles, volunteering for and applying to become a RR teacher, and sustaining their focus on their goal of becoming RR teachers.

Illustrative of contextual influences on the levels of professional interest are the experiences and learning the RR teachers brought to bear at the start of RR careers. Linda researched, studied, and implemented RR practices for a number of years before she completed official training and began to practice as a RR teacher. Prior to becoming RR teachers themselves, Courtney, Helen, Olivia, Tara, and Margaret taught in schools with RR programs, often in physical proximity to the RR teachers, observing, interacting with, and learning from those RR teachers.

The experiences of Irene and Grace provided evidence of sustained, goal-oriented professional interests with which the RR teachers began their careers. Also evident in their experiences is the influence of their surrounding contexts. Irene and Grace each waited lengthy time periods (sustained interest) between the time they stated their goals of becoming RR teachers and the time they became official RR teachers. Prior to becoming RR teachers, Irene and Grace each taught in buildings that housed practicing RR teachers. The lack of open positions in their building precluded the immediate ability of Irene and Grace to become RR teachers. Irene waited for five years after her RR training before she took on the mantle of RR teacher. She demonstrated a willingness to wait for a position. While she continued in her classroom teaching position, she also tutored RR students during lunch breaks, before, and after school, to develop and hone her knowledge and skills. Grace waited for seven years from the time she knew she wanted to be a RR teacher to the time she had an opportunity to train and become a RR
teacher. Throughout that period, and even before, she remained in her second-grade classroom and developed a relationship with the RR teacher in her building. Grace shared that her relationship with RR teacher was highly influential on her classroom practices and her beliefs about RR.

**Professional interest and knowledge.** Throughout their training years and well into their careers, the RR teachers continued to experience heightened professional interests that appeared to propel them to become more focused on the specialized topic-knowledge of RR. When analyzing the relationship between professional interests and knowledge, I found that the RR teachers were highly interested in specific aspects of topic knowledge, such as word work, but that did not translate into deeper knowledge of that specific aspect... For example, in the area of word work, each teacher evidenced professional interest in gaining and developing more knowledge. When asked about the challenges of teaching RR, each teacher alluded to word work in some way and their desires to improve their knowledge and skills in that area. However, I observed different levels of knowledge and skill with respect to word work across the RR teachers. Linda, Olivia, and Tara each evidenced operating in the later stages of expertise development, but they still demonstrated differences in the depth and conceptual richness of their understanding of word work. For example, Linda possessed a deep and broad understanding of word work. She referred to how she creatively used the word-work portion of the lesson to better scaffold and meet the specific needs of her students. Olivia also leveraged her knowledge of word work, coupled with her knowledge of each student, to create specific work that could be sent home. However, Tara spoke about the
vast knowledge necessary to engage with word work. She reflected on her still
developing knowledge of how to use word work to the benefit her students in powerful
ways. Thus, RR teachers who demonstrated expertise within similar stages of the MDL
appeared to possess high interests in, but a differing quantity and quality of knowledge
related to word work.

**Different from MDL conception of interest.** The MDL proposes that learners’
shifts in interest from general to individual are related to the development of the depth
and complexity of their knowledge (Alexander et al., 1995). That shift also signals the
transformation of expertise from acclimation to competency. Further, high levels of
professional interest are related to the later stages of the MDL continuum (Alexander et
al., 2004). However, my investigation indicated that each RR teacher expressed high
levels of professional interest in the wider domain of teaching and learning literacy, and
in RR knowledge. However, not all of the teachers were operating at advanced levels of
expertise. It could be that conducting close observations of interest related to individual
practice with specific aspects of topic knowledge with they are engaged versus the
examination of interest levels using measures removed from the context of practice may
uncover aspects of how levels of interest influence the development of knowledge. That
close observation of interest conducted within the sociocultural contexts of teacher
learning may also uncover myriad influences on individual interests. The RR teachers
were immersed in multiple contexts in which others promoted the view that knowledge is
constructed in relationship with peers, informed by research, and improved by study of
their own practice. In their process of seeking knowledge and transforming their
expertise, the RR teachers sensed that the practice of teaching RR was laden with opportunities for mutual learning. Their interests led them to the RR teachers to engage with ideas, employ collaborative inquiry, and reach out to peers, all types of strategic processing promoted by the sociocultural context of RR teacher learning. Thus, their interest levels may have been increased and sustained by the instructional model of teacher learning, not only by their depth and complexity of their knowledge. In other words, the RR teachers could have been as motivated by their interests in doing the work within the collaborative model of teacher learning than by their interest in developing specific knowledge. However, they continued to develop their RR knowledge through their engagements with the collaborative model of teacher learning.

**Complexity and Depth of Knowledge**

Researchers have suggested that when observed in the practice of teaching, teachers who possess deep, conceptually rich knowledge tend to spend less time transitioning from one activity to the next, present more concepts and examples in a shorter time frame, and are more efficient in prompting and probing students (Leinhardt & Greeno, 1986). Additionally, more knowledgeable teachers typically employ more guided and monitored practice with the potential of providing scaffolded instruction (Leinhardt & Greeno, 1986). Palmer et al., (2005) contended that individuals with expertise possess the ability to “invent new ways of thinking, seeing, and problem solving that are qualitatively different from nonexperts” (p. 16).
RR knowledge in Practice and for Practice

For the RR teachers this study, RR knowledge (e.g., knowledge of the framework, theory and assumptions, tools for observation, monitoring, and instruction, and the students) involved the complex, flexible, accessible organization among the element of RR knowledge invoked in the act of scaffolding student learning. They developed knowledge within each of their learning contexts including working with students, engaging in Continuing Contact sessions, and participating in Behind the Glass experiences. Thus, they were in the process of developing knowledge in practice, for the improvement of practice. Analysis of the data related to RR knowledge of the teachers revealed the blurred lines between domain and topic knowledge, and that RR teachers’ scaffolding of student learning was most indicative of their complexity of knowledge. Those data related to scaffolding instruction referred to the observations of participants’ actual practice of scaffolding, as well as to the participants’ reflections regarding their scaffolding practices.

Complexity of knowledge within ill structured domains. The depth and complexity of knowledge in this study was related to RR teachers’ abilities to discuss and orchestrate the multiple elements related to RR lessons, with the purpose of adapting instructional strategies and materials based on students’ responses on a moment by moment basis. To discuss and orchestrate the elements that comprise RR knowledge, RR teachers must possess a depth of knowledge of each element that formulates RR knowledge, as well as an understanding of the complex relationship among the elements.
Studies of expertise using the MDL have shown stages of expertise to be correlated with the depth and complexity of individuals’ domain and topic knowledge (Alexander, et al., 2003; Alexander, et al., 2004). The MDL is premised on the view that the depth and complexity of topic knowledge leads to more principled, conceptually rich domain knowledge within a broader academic domain. In past studies of expertise using the MDL, domain and topic knowledge in academic domains related to more traditional contexts of schooling (Alexander, et al., 2003; Alexander et al., 2004). Because of the nature of those more traditional academic domains, there was a perceived border between domain knowledge and topic knowledge. For example, if world history is considered an academic domain, topic knowledge within that domain might be categorized as facts and concepts related to early and later civilizations. In contrast, Spiro et al., (1987) suggested that the domain of teaching and learning literacy is complex and ill structured.

Following that line of thought, I found teaching and learning RR to be also complex and ill structured. I characterized RR knowledge as topic knowledge within the larger domain of literacy teaching and learning, but the lines between the knowledge domain of teaching and learning literacy and the topic knowledge of RR are blurred and ill defined. Berliner (2000) pointed out the difficulties of attempting to understand individuals’ knowledge within domains in which the lines of domain and topic knowledge are overlapping and blurred. I found that RR knowledge shared many aspects of the wider knowledge domain of teaching and learning literacy, e.g., knowledge of child development, knowledge of literacy development, knowledge of instructional strategies pertaining to literacy.
The interconnections between that wider knowledge domain and the more specific topic knowledge, as in the case for the RR teachers, could be due to the contextual influences mentioned previously. The blurred and overlapping lines that existed between RR knowledge and the larger domain knowledge of teaching and learning literacy in primary grades made the specific topic-knowledge of RR teachers difficult to parse and categorize. Knowing that, it may be important to know and understand the wider domain knowledge of the RR teachers as well as their topic knowledge specific to RR. Prior knowledge in the broader knowledge domain influenced the construction of RR knowledge for the teachers. There may be some aspects of prior knowledge that do not lend themselves to improved practice for the situated one-to-one interaction of a RR teacher. For example, the conception of spelling and phonics that Grace developed as a classroom teacher may not be the way to accelerate an individual student forward in reading, particularly within the RR model. Margaret’s background in special education and literacy may not have mapped directly onto RR as a specific type of reading intervention. Alternatively, there may be aspects of the wider domain that fully support the situated practice of a RR teacher. Grace exhibited knowledge of the phonemic awareness and its relationship to writing before she became a RR teacher. Margaret noted her understanding for data collection, analysis, and record keeping that she brought from her special education background with her into her RR career.

**Scaffolding instruction indicated knowledge depth and complexity.** I considered RR topic knowledge as consisting of four main elements: (a) knowledge of theory; (b) knowledge of assumptions; (c) knowledge of the RR framework; and, (d)
knowledge of tools for monitoring and instruction. I understood the knowledge of each
element to be integral to the knowledge of every other element, reflective of the complex,
interconnected, flexible, accessible topic knowledge of RR teachers. I understood the
enactment of RR knowledge as demonstrated in the act of scaffolding of student learning.
It was in that act that an RR teacher must call to mind topic knowledge specific to the
situation. That understanding led me to consider depth and complexity of the RR
knowledge of RR teachers as reflective of their abilities to scaffold instruction for
students. Thus, it could be that the most full and rich description of RR knowledge
emerges from observations, and from interviews about practice. Olivia, as described in
Chapter Four, provided an example of the depth and complexity of knowledge necessary
for scaffolding. She invoked her deep, integrated, accessible knowledge of a student’s
family, her student’s family’s ability to work with the student, her student’s needs, and
the needs of her student’s mother, with her knowledge of teaching reading to make
 instructional decisions on a moment by moment basis, as well as to set longer term goals
for her student and herself.

My investigation demonstrated that there were differences among the RR teachers
in their abilities to scaffold instruction, and that those differences indicated the stages in
which they were operating throughout the MDL continuum. In my comparison of Olivia
and Grace, I characterized Grace as still developing in her RR knowledge. Thus, her
ability to scaffold was more reflective of the less connected, less principled, more
scattered knowledge often demonstrated by learners in the early stages along the MDL
continuum. It seemed that her knowledge was related to her ability to focus her teaching
point during her Behind the Glass presentation. The scaffolding provided by Grace did not appear to help her student make accelerated progress. On the other hand, Olivia seemed to possess more developed knowledge that led to a more focused teaching point, and scaffolded instruction in ways that will accelerate her student. Her ability to effectively scaffold instruction for her student led me to characterize Olivia as operating in the later stages of the MDL, moving from late competency to proficiency.

**Similar to MDL Conception of Knowledge**

The MDL framework proposes depth and complexity of knowledge as the primary determinant of the stages at which teachers operate throughout the continuum of expertise development. Similarly, for study participants, the complexity and accuracy of their topic knowledge was related to their placements along the MDL continuum, as premised by the framework. Those teachers who relayed their deep, principled knowledge of the elements with respect to scaffolding were considered in the later stages of expertise development. Those teachers relaying more scattered, less accessible knowledge with respect to scaffolding were considered in the earlier stages of expertise development. As such, Olivia was considered to be operating between the stages of late competence and proficiency, and Grace appeared to be toggling between the stages of early acclimation and early competence. Levels of interest and engagements with different types of strategic processing did not determine where a RR teacher might be operating along the continuum, but each component had a role to play in the development of knowledge.
**Strategic processing within a model for teacher learning.** The MDL conceives of strategic processing within two levels, surface and deep (Alexander, 2004). That is, surface-level strategic processes are those used to make sense of information. They included rereading, determining the meaning of unknown terms or paraphrasing, and note taking, and aid in the initial comprehension of the domain text, the typical form of knowledge representation. Conversely, deep-level strategies facilitate a transformation of expertise aided by error analysis. That is, learners detect and eliminate misconceptions formulated during surface-level processing (Alexander et al., 2004; Murphy & Alexander, 2002). Further, individuals engaged in deep levels of strategic processing create connections between specific topics and a broader domain of study to the point that it is difficult to parse their understandings of topic knowledge from their cohesive knowledge structure (Alexander, 1997; Alexander, et al., 1994). The resulting transformation results in new and different knowledge constructed by a learner within active engagement in problem finding (Alexander, 2004). For example, Alexander defined problem finding as a deep form of the strategic process of questioning and investigating that results in qualitatively and quantitatively different knowledge (Alexander, 1997, 2004).

**Different types of strategic processing among the RR teachers.** The RR teachers engaged in different types of strategic processing including: taking notes, rereading texts, engaging in dialogue, collaborating with more-capable others, and utilizing the tools of observation to monitor instruction. RR teachers invoked strategic processes to gain information with the intent to solve problems of practice. That intent
appeared to be influenced by the practice-embedded model of the RR teacher learning. That is, they developed knowledge in practice, for practice. According to the MDL, the problem finding processes in which RR teachers engaged can be thought of as deep-level processes, with some perhaps more deep than others.

Using the MDL conception of deep-learning strategies, it could be that the depth of learning strategies are personal and individual for each teacher, based on her intent for learning and her depth of knowledge. For example, Grace and Olivia appeared to be operating in different stages, and yet still engaging in similar types of strategic processing. However, the levels of their strategic processing may be more idiosyncratic and individualized to a teacher in context.

Working in collaboration with the TL, Grace received and used the word-work document that listed the principles of word work and provided the language to use with RR students. Grace made use of the document to more fully understand word work, and to better implement word work in her lessons. Recognizing the multiple uses and importance of the document to support her learning required Grace’s interest in and knowledge of her own misconceptions about word work. Grace’s insight to her learning, as well as her intent to use the document to solve problems of practice, lead me to view the use of the document as a deep-learning strategy for Grace. Olivia, on the other hand, took on the role of more-capable other, and engaged in sharing of her word-work knowledge with Grace. I considered Olivia’s activity of taking on that role and learning collaboratively with others as a type of strategic processing. Olivia demonstrated that she had already cleared up common misconceptions, and was now able to reflect on her
knowledge, and share her understanding with others. I considered that a deeper level of strategic processing that could signal a depth of knowledge in line with the proficiency stage along the MDL continuum.

**Strategic processing propelled by interest.** There appeared to be a tight relationship between interest and strategic processing evident in the data. The RR teachers possessed a repertoire of strategies for learning, and were highly motivated by professional interests, allowing them to engage in activity that could result in the formation of new knowledge. I conceived that RR teachers manifest professional interest as a willingness to continue engagement with ongoing professional development to solve problems of practice.

RR is premised on the assumption that reading is a problem-solving process. Similarly, the assumption that learning is a problem-solving process is evident as foundational to the RR instructional model of teacher learning (Lyons, et al., 1993). At its heart, the RR model of teacher learning considers teachers to be researchers of their own practices and provides avenues to the type of problem finding that signals the deepest level of strategic processing (Alexander, 1997, 2004). Engagement with problem finding is central to the practice of RR teachers. The data indicated that through Continuing Contact sessions and Behind the Glass presentations, RR teachers had the opportunity to share their knowledge and learning process with a broader audience. They took advantage of the opportunities to discuss dilemmas related to their professional practices. The participants also appeared to develop their abilities to articulate the complexities of their practices as they improved their fluencies in the vernacular of RR. Some RR
teachers reported that they felt the structure of the Continuing Contact sessions provided a supportive context in which trusted others provided feedback and critique necessary for expertise development.

The relationship between interest and type of strategic processing invoked by the teachers may be another point of distinction along the MDL continuum. For example, Tara, a RR teacher operating in the later stages of the MDL continuum, sought to further her knowledge of how words work because she believed that more knowledge and deeper understanding was instrumental in her ability to scaffold student learning. She recognized her own gaps and misconceptions, and engaged with myriad types of strategic processing to enhance her knowledge. Her primary strategy for learning was engaging in dialogue. She stated that the strategy in which she engaged the least was reading the common texts. It could be that her knowledge base was such that Tara was no longer interested in reading and rereading the common text. Her professional interest led her to construct more and different knowledge by engaging in questioning and investigating word work in collaboration with her peers. Moreover, Tara’s lack of engagement with the common texts could signal the idiosyncratic and individual nature of strategic processing that is specific to each teacher in her level of expertise development. It seemed important to the RR teachers that there were multiple entry points to the learning opportunities afforded them. That way, each teacher could engage with the type of strategic processing that fit her best for specific learning, and in particular situations.
Different Conception of Strategic Processing from the MDL

Much of the research surrounding the MDL is centered on text-based strategic processing in academic domains. That is, strategic processes invoked by learners were in service to their engagements with a text. Alternatively, the strategic processes in this study were conceived as those learning activities invoked by the RR teachers engaged within the sociocultural learning model. By focusing on individuals’ learning within that practice-embedded model of teacher learning, I was afforded a view of the enactment of the RR teachers’ strategic processing for learning in practice and for practice.

Teachers did, in fact, participate in text-based learning by engaging with the common texts. Moreover, teachers enacted different types and levels of engagement with texts. It could be that Tara, who appeared to operating in the later stages on the MDL continuum, did not read texts, and found text reading not as necessary for her continued learning. Margaret, operating in the earlier stages along the MDL continuum, and who may still be building a knowledge base, independently returned to the text often for continued expertise development. Grace, also operating at the earlier stages of the MDL, did not read the text unless her reading process was mediated by the TL. Grace’s strategy with respect to reading the text may indicate a need for her to engage further with the text, but with more support. Grace found the text “too wordy” and depended on interpretation by the TL and her colleagues.

The RR teachers invoked multiple types of strategic processes, not only those necessary for engagement with texts. Observing how they went about learning helped me to understand strategic processes as types of learning activity, and consider the possibility
that each type of strategic processing consisted of surface and deep levels. Strategic processing could present as more varied and complex when considered within sociocultural contexts, when teachers’ engagement with dialogue is highlighted as the premiere way of learning. Through engagement in dialogue, the teachers were in a continual process of problem finding as they used in-practice experiences to develop expertise for improved practice (Alexander, 2004).

The Role of Emotions

Schutz (2014) contended that emotions influence teachers’ lives, and in turn, influence their work as teachers and as learners of teaching. Further, he acknowledged that emotional episodes are dynamic transactions that occur within sociohistorical contexts. Emotional episodes are described as the result of an individual’s judgment concerning her/his “perceived success at attaining goals, maintaining standards, or beliefs” during transactions within sociohistorical contexts (Schutz, 2014, p. 3). I employed Schutz’s framework of emotional episodes to examine the role of emotions in the development of expertise among the RR teachers.

Similar Demographics, Differing Emotional Responses

I noted that Grace and Olivia, two demographically similar teachers, experienced different progressions along the MDL continuum. Olivia appeared to be operating at the later stages of late competency and proficiency. Grace, however, seemed to operating at earlier stages, acclimation and early competency. Upon further analysis of the data, I noted that Grace responded in interviews using more emotional language, experienced more negative emotions, and embodied her emotions at unexpected points during the
interview process. I turned to Schutz’s (2014) framework of emotional episodes to help understand Grace’s responses and the possible influence her emotions may have had on her expertise development.

**Insights gained by exploring emotional episode.** Examination of data using the framework of emotional episodes provided me with possible insights concerning Grace’s expertise development (Schutz, 2014). Schutz recommended that emotional episodes be examined within sociohistorical contexts. To that end, I focused on Grace’s description of her year of RR teacher training. She explained that throughout her training year, her teacher trainer would not allow her to share her prior knowledge of phonics and spelling and that she felt “shut down” each time she attempted to explain her classroom program. Additionally, Grace attributed her current “unsuredness” to her memories of her treatment during her training year. She explained that she and other teachers were reprimanded for their desire to share their knowledge about learning to read. Grace went on to discuss that her shutdown resulted in her inability to implement the word-work element of the RR framework without fear of reprimand. As she shared a current practice with me in the context of our interview, she realized that she still felt that fear when trying new things.

In her judgment, Grace’s realized that her goals, standards and beliefs as a learner of RR and those of her teacher trainer were at odds. Grace’s goal of learning RR knowledge related to word work was deeply influenced by the prior knowledge of word work that she brought with her from her classroom. Moreover, Grace believed that to learn, one must access and share prior knowledge, stating that we “do that for kids, don’t
we?” (Grace, Interview 1). In Grace’s judgment, her teacher trainer appeared to share the same goal, but seemed to have different beliefs than Grace about the sharing of prior knowledge to learn. As a result of the mismatch, Grace experienced frustration and humiliation, and decided to not engage with learning activities that pertained to learning and practicing word work. By not engaging with those activities, Grace may have not constructed the knowledge those activities were designed to foster. From a sociohistorical perspective, Grace continued to carry those emotions in the present, still remaining unsure and in fear of being reprimanded. Grace may constrain her ability to take risks, experiment, and share both her successful and her unsuccessful attempts in dialogue, all important types of strategic processing for RR teachers.

**Emotions related to the MDL.** The MDL is a framework of expertise that considers cognitive and affective influences. The component of interest addresses the affective influences and motivating factors on expertise development (Alexander, et al., 1995). In past studies of the MDL, stages of expertise were determined by the depth and complexity of knowledge, and were related to deep levels of strategic processing, and high levels of interest (Alexander, et al., 2004). Studies have also demonstrated the importance of prior knowledge (Alexander et al., 1995) and years of experience (Alexander, 2005).

My investigation highlighted emotions as an important consideration in the development of teacher expertise. As highlighted in the previous chapter, Grace exhibited similar professional demographics to Olivia, with both teachers demonstrating high levels of professional interest in gaining RR knowledge. However, Grace did not seem to
possess the same depth and complexity of knowledge as Olivia. Additionally, Grace was not as interested in participating in the types of strategic processing promoted by the sociocultural context of the RR instructional model of teacher learning. It seemed that Grace’s negative emotional episode from her training year might have weakened her interest for engaging in the learning activities, which may have created a barrier for the development of further knowledge. Thus, emotions could play a role in the development of expertise that isn’t fully realized in the interest component.

**Limitations**

There were features of this study that limit the findings. These limitations were characteristic of the design and were foreshadowed in Chapter One. These limitations revolved around issues of sampling, my role as a researcher and my data collection procedures, and the use of the MDL as both a theoretical and analytical lens.

One characteristic that limited the findings is that the data were collected from a small sample of white, female, teachers, participating in one early intervention program. Thus these findings are not meant to be generalized. Further, while this study focuses on a case of 8 teachers this sample was drawn from a larger group of 18, who participated in the continuing contact sessions. Thus, I was unable to gather data reflective of the rich interplay among all 18 teachers in this group. In addition, each of the participants shared similar contexts in that they taught demographically similar schools; they trained at the same training site; they received advanced degrees from the same university that may have espoused theory and assumptions regarding literacy instruction similar to those proposed by RR.
The second limitation relates to my role and positionality of researcher, an outsider with insider knowledge and experiences. I was a former RR teacher, which made me somewhat more approachable to the participants, since we had engaged in similar experiences, but they understood I was a doctoral student and researcher, which set me apart. I also shared similar professional experiences in that I trained at the same site as the participants and taught RR in a nearby school with similar student demographics. The collective shared experiences may have limited the perspectives brought to bear on the findings.

I recorded data from the Continuing Contact sessions through the use of “scripted field notes” in which I attempted to capture direct quotes and as much as the dialogue as possible between participants, during my observations of the Continuing Contact sessions. I also attempted to capture “in-time” impressions and thoughts during the session. I did this rather than audio record to comply with the 2 RR teachers who did not want to be video or audio recorded. The use of scripted writing meant that some of the conversation was not fully captured. I was limited by how fast I could type. It also meant that I lost some of my thoughts and impressions as I tried to focus on the dialogue among the participants. Thus, some of the transcribed discussion lacks the full conversational context. I collected a large corpus of different types of data over time, however, which allowed for emerging patterns and themes, and appeared to capture aspects of the interest, knowledge, and strategic processing of the 8 participants. I also conducted member checks with each participant to further confirm my interpretation of the data and the findings.
Finally, the MDL is but one theory of expertise and one theory of learning development. I used this theory to both frame my research design and as a lens through which to make sense of my data. In doing so, I was challenged to both rely on and question this theory for its veracity, explanatory power, and generativity. Using the MDL as a lens to understand these data may have caused me to miss other salient insights and patterns in the data gathered from these teachers. I attempted to balance this through rigorous self-question, initial descriptive inductive coding, and interrogation of process with a critical friend.

**Implications**

**Implications for Practice**

The use of the MDL to examine teacher expertise illuminated the relationships among interest, knowledge, and strategic processing, and the importance of considering the integration among the three components to address teacher learning. Even in an instructional model of teacher learning in which the development of expertise is the goal, there existed a range of difference among the participants in where they were operating on a continuum of expertise development. Understanding the interaction of those three components may help teacher educators and other professionals understand how to better target the needs of teachers and provide differentiated professional development. Professional development models in which the same information is presented the same way to all teachers regardless of their experience, interest, or areas for growth, have been routinely criticized in teacher education research (Darling-Hammond & Richardson, 2009; Garet, Porter, Desimone, Birman, & Yoon, 2001). Differentiated professional
opportunities for learning may, on the other hand, provide the specific, engaging growth opportunities for professional learning that teachers need to experience greater success, satisfaction, and engagement.

My inquiry evidenced that high professional interest (i.e. intense and targeted) is not enough when considering teacher learning. Teacher educators and other professionals need to attend to teachers’ depth and complexity of knowledge and the types of strategic processes implemented to gain that knowledge. By focusing on the depth, complexity, and accuracy of teachers’ knowledge, teacher educators and other professionals can differentiate professional development. Assessment of teachers’ knowledge seems critical to differentiation. Assessment of knowledge may need to be realized in quantitative and qualitative ways. Measures of teacher knowledge tell one part of the story, while conversations with teachers about their knowledge may provide deeper insight. Spending time with teachers, engaged in a dialogue about how they think about problems of practice, and how they perceive their own learning journey may go far in developing differentiated professional development.

Offering multiple entry points to learning opportunities, and varying the types of strategic processing in which teachers can engage may also be important in providing targeted professional development. Teachers’ understanding of the types of strategic processes that result in furthering the development of their knowledge may facilitate their abilities to make compelling choices in professional development situations. If teachers possess high interests, they may want to understand the ways in which different types of note taking, or different ways of engaging in dialogue, may better enhance their
knowledge. An understanding of the relationship(s) among interest, knowledge, and strategic processing could inform teacher educators and other professionals of their choices concerning their offers of multiple entry points to learning opportunities, and of the importance of various types of learning activities.

Also, my analysis of the data evidenced that attending to the emotions of teachers may be important in understanding what they have learned, how they learn, and how they continue to take advantage of opportunities to learn. Schutz (2014) discussed the ratio between positive emotional episodes and negative emotional episodes. He suggested that when the number of positive emotional episodes outweighs the number of negative episodes, individuals develop a more positive view of the situation generally. It thus seems important for teachers to have emotionally satisfying experiences with learning. Addressing the strategic processes of a teacher may help him/her view emotional episodes differently. Helping teachers learn in ways that are best suited to their purpose, to the goals of the program, and to the development of their knowledge may promote the number of positive emotional episodes related to the situation. In turn, positive emotional episodes may enhance a teacher’s desire to keep learning.

**Implications for Theory**

My analysis of the data shows that high interest was not necessarily related to the depth and complexity of knowledge, with knowledge being the primary determinant of expertise development. In other research of the MDL, high interest was more strongly related to the complexity of topic knowledge. That relationship between interest and knowledge could have been a result of the nature of the domains considered in the
studies. When studying teaching as a domain of expertise, I understood that domain to be ill structured and complex, with blurred boundaries between the knowledge-domain and the topic-knowledge. I examined the active process of knowledge development of teachers in practice, and for practice. In contrast, past MDL research focused on teachers highlighted the teachers’ content areas, (e.g., special education), as the domain of expertise (Alexander, et al., 2004). As demonstrated by the RR teachers participating in this study, teaching is highly personal, and frequently deeply connected to their sense of self. Interest in learning may be more heightened, but insufficient to ensure accurate, deep-knowledge construction.

Moreover, the interest component may need further conceptualization. In this study, the surrounding context appeared influential on the teachers’ interest, resulting in high interest across the participants. Thus, a broader look at the affective domain that includes a closer look at interest may be necessary. For example, Grace’s emotional episode appeared to be influential on her expertise development, perhaps de-escalating her motivation to participate in learning activity and constraining her knowledge development. Thus, it seems that the affective elements that comprise the interest component may need to further examined and conceptualized.

Additionally, the construct of knowledge in action may be under-conceptualized by the MD, i.e., how teachers use their knowledge in their practices. Past research contended that an individual’s scholarly endeavors signal proficiency in an academic domain. However, the RR teachers in my investigation engaged in using their knowledge to influence the knowledge of others, and to improve their practice. The RR teachers who
exhibited the ability to scaffold students’ instruction in ways that accelerated student progress were operating at the proficiency stage. Those same teachers also took on the mantle of more-capable other for teachers operating in earlier stages. Olivia, Tara, and Linda tended to be knowledge generators, engaged in problem finding, and facilitating the learning of others, while aiding in the development of deep knowledge for themselves and other teachers. In that way they conceived of themselves as contributing to the wider field of study.

**Implications for Further Research**

The MDL provided insight to the expertise development of teachers engaged with a sociocultural model of teacher learning specifically designed to promote the development of expertise. By using the MDL, I was able to describe the interests, knowledge, and strategic processing of the study participants, and examine how their interactive relationship was integral to their expertise development along an ongoing continuum of stages within an ill structured, complex knowledge domain. Past research of the MDL was completed using quantitative measures of each component (Alexander et al., 1995; Alexander et al., 2004). While the findings in those studies do show the relationship among the components in the development of expertise, quantitative measures of academic domains situated in the more traditional conception of schooling may not depict the entire story of expertise. Speaking to the individual, personal nature of teacher learning within sociocultural models of instruction, Rogoff (1995) stated, “participatory appropriation is the personal process by which, through engagement in an activity, individuals change and handle a later situation in ways prepared by their own
participation in the previous situation" (p. 142). Continued qualitative studies of more complex knowledge-domains may be necessary to fully understand the manifestation of expertise. Observing how individuals develop knowledge in practice may provide information about continued conceptual development of current dimensions of the MDL, as well as about additional dimensions. For example, there may be different types of interest when examining the expertise of teachers in practice: interest in the knowledge itself, as well as interest in the learning activity or the strategic processing offered to learn that knowledge. The RR teachers in this study shared their high interest in how RR teachers learn, through collaboration and engagement in dialogue. Additionally, research along this line may help develop our understanding of how teachers build personal theory and the tension that may exist between personal theory and the adoption of new and/or different theories.

Better understanding of the strategic processing of teachers is also important. Conceiving of learning activity as the strategic processes needed to understand text might not account for the full range of learning activity of teachers. By observing how teachers learn in practice for practice, researchers may develop a broader picture of how teachers learn, and of the influence of interest and knowledge on those learning processes. Such research may also allow for the identification of a family of strategies that can be tested and offered to teachers as potential tools to facilitate their practice. Additionally, trajectories of strategies that could be used by teachers with greater sophistication or purpose could be identified by further research.
I found that my status as a researcher, an outsider with insider knowledge, who was also participating in the development of my own expertise in an academic domain, provided beneficial insight to how the teachers experienced their expertise development. My insider knowledge allowed the participants to fully engage in the RR vernacular when they reflected on their interest, knowledge, and learning activity. RR expertise is partly developed by taking on and fully engaging with the language of RR. Because I understood their language, RR teachers could discuss and explain their tacit knowledge in ways that were familiar to them. That is, they did not need to interpret their expertise using the broader language of the wider domain. They could engage fully with me as one who understood what they shared, and could trust that I would be able to interpret their language for others, such as those reading this dissertation. Our shared language and experiences were also important in fostering my close relationship to each participant. That relationship may have lead to their honest and authentic reflections about their teaching and their learning of teaching. For example, Grace may have felt she was with someone who understood her training-year experience. Her knowledge of our shared experiences could have allowed her to share her authentic emotions and lasting consequences regarding that year.

I believe that the manifestation of expertise development among the RR teachers consisted of a process of continuous transformations animated by the interaction among interest, knowledge, and strategic processing. That process was promoted and enhanced by the RR instructional model of teacher learning that honored the participants as thinking professionals, and as autonomous knowledge seekers who sought to build their
own theories of learning. Further, because the instructional model of RR teacher learning allows for the idiosyncratic, personal nature of teacher learning, each teacher was fully engaged with her own expertise development. As a group, the teachers were engaged in continuous professional development that highlighted their “inquiry as stance.” (Cochran-Smith & Lytle, 2009). They were encouraged to adopt a dynamic, fluid way of knowing and being in the world. They questioned their practices and viewed themselves as continually developing learners. As a result, they continued to maintain high levels of interest in further constructing their knowledge through exchanging reflections and examining problems in practice (Cochran-Smith & Lytle, 2009).
REFERENCES


APPENDIX A

Online Questionnaire

I am interested in the story of your experience as a Reading Recovery teacher. In particular I want to understand how you learn as a RR teacher, I am also interested in what motivates you to continue in the capacity as a Reading Recovery teacher. Please some time (30-45 minutes) to respond to the following questionnaire.

Part 1: Experience and Background

1. What certifications do you currently hold? (e.g. Reading Recovery certificate, Literacy Specialist certificate, Special Education certificate, etc.)

2. What is your current degree?
   a. Bachelor’s
   b. Master’s
   c. Certificate of Advanced Studies
   d. Doctorate
   e. Other please describe:

3. How many years of experience do you have...
   a. as a teacher in a regular classroom?
   b. as a Reading Recovery teacher?
   c. as a teacher in other capacities?
   d. Please describe other teaching duties and how many years of experience you have had at each.
Part 2: Motivation

2. Why did you become a Reading Recovery teacher?

3. If you have been a Reading Recovery teacher for more than 7 years, why are you still teaching Reading Recovery?

Part 3: Experience

4. Please describe a time when you felt your work as a Reading Recovery teacher made a difference in the life of a student.

5. Please describe a time when you felt your work as a Reading Recovery had little influence in the life of a student.

6. How would describe your physical space in which teach your Reading Recovery students?

Part 4: Learning as a RR Teacher

Reading Recovery teachers meet once a month for Behind the Glass/Continuing Contact sessions designed to promote sustained development of expertise.

7. What strategies do you as a learner use during Behind the Glass/Continuing Contact sessions to learn to teach your students?

8. What knowledge have you gained as an RR teacher about children’s literacy development do you consider to be the most powerful?
   a. How do you use this knowledge as a Reading Recovery teacher?
   b. What, if anything, inhibits your ability to use this knowledge as an RR teacher?
   c. Do you make use of this knowledge in your other teaching roles?
      i. If yes, in what ways?
ii. If not, what, if anything, inhibits your ability to make use of this knowledge in your roles other than as RR teacher?

9. What do you consider to be some of the most important things you have learned as a result of being a Reading Recovery teacher?
APPENDIX B

Reading Recovery Teacher Study

Observation Protocol BTG/CC Session

<table>
<thead>
<tr>
<th>Cycle _____- Observation ______</th>
</tr>
</thead>
</table>

Observer: Tammy Mills                  Date: 
Location: Midcoast Elementary School  Duration: 

Participants Present: 

Description of Context: 

Summary of Observation: 

Section 2: Running Record (include 15 minute summaries of group activities, verbatim samples of participants’ discussions, major shifts in activity or thought shared). 

<table>
<thead>
<tr>
<th>Time</th>
<th>Observations</th>
<th>Observer Comments/Reflections</th>
</tr>
</thead>
</table>


Were MDL components directly addressed by the TL? Were MDL components exhibited by RR teachers?

- Knowledge
- Interest
- Learning Strategies
APPENDIX C

Semi-structured Interview Protocol to Follow Questionnaire

Thank you for meeting with me. I have some questions to ask about your participation in Reading Recovery and how it has influenced your experience as a reading teacher and as a learner. These questions are part of the study I am conducting looking at the development of reading teacher expertise and the factors that may be related to that development. What you tell me will remain confidential. I hope you will feel free to be candid in your responses. I am audio recording this session to ensure accuracy and completeness of my notes. If you say anything during this session that you would like me to erase, just let me know and I will do so, even if it is after the session. You are free to withdraw from this study at any time.

1. I am particularly interested in understanding your experience as a Reading Recovery because you are fairly new/veteran to the Reading Recovery. Can you tell me more about your experience?

2. How do the BTG/CC sessions work for you? Are there any negatives? Positives?

3. What are your thoughts about your own learning during the BTG/CC session?

4. How would describe the kind of talking that happens during BTG/CC sessions? Do you find this kind of talking unhelpful or helpful? In what ways?

5. Are the cases presented at BTG/CC sessions fostering your learning? HOW? Do they influence the way you think about your students? In what ways?
6. Do you find yourself teaching differently when you present a case or when the teacher leader or colleagues are observing your lesson? Can you tell me about that?

7. Has being a Reading Recovery teacher influenced your thinking about teaching and learning in areas other than reading? Can you talk about that?

8. Can you talk about some of the benefits of Reading Recovery from a teacher learning perspective? What would you consider to be some of the drawbacks?

9. I noticed from your questionnaire that you were motivated to become a Reading Recovery teacher because . . . Has that changed over time?

10. On your questionnaire, you noted that . . . was the most powerful knowledge you have gained as a Reading Recovery teacher. Has your idea of what you considered to be important or powerful knowledge changed over the course of your Reading Recovery career?

11. As a Reading Recovery teacher, you help students become strategic problem-solving solvers of text. You noted that you use . . . as your learning strategies. Can you explain those a little further? Do you think you learn in the same way as you did in your training year? If not, how do your strategies for learning have changed?

12. If expertise can be thought of in stages, acclimation, competence and proficiency, where proficiency is considered as possessing expert knowledge and skills, where would you place yourself along that continuum? Why?
## APPENDIX D

Data Analysis Table

<table>
<thead>
<tr>
<th>Theme</th>
<th>Category</th>
<th>Descriptive Qualifiers</th>
<th>Coding Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest</td>
<td>Accountability</td>
<td>• I think as a classroom teacher you’re accountable as well. It’s different when there’s 20 of them. It’s a different level of responsibility when you have all of them (Tara, Interview 1).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Motivated by Challenge</td>
<td>• Well one thing I’ve always been motivated by is the problem solving in education (Margaret, Interview 1).</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• I enjoy the challenge of working with the children who experience difficulty</td>
<td>(Courtney, Questionnaire)</td>
</tr>
<tr>
<td></td>
<td>Motivated by</td>
<td>• Those times when we’re there, those two and half hours, they go just like that</td>
<td>[snaps fingers] because everyone is so focused and they’re really there to support one another (Grace, Interview 1).</td>
</tr>
<tr>
<td></td>
<td>Collegial Support</td>
<td>• The groups that have I been involved with have not. . . I have not felt intimidated by. . . You know how peers can be domineering. . . Or I might make some people feel like they’re not doing what they should be doing? But that is not the chemistry or the dynamics of this group (Grace, Interview 1).</td>
<td></td>
</tr>
<tr>
<td>Sustained Interest</td>
<td>Motivated by</td>
<td>• The more I do it, the better I get at it, which is very rewarding and keeps you coming back for more (Olivia, Interview 1).</td>
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<tr>
<td></td>
<td>Confidence and</td>
<td>• I think that really I’m probably in a very good space as an educator because I’ve had so much specialist experience and regular experience and Reading Recovery experience, so I think that [RR] has complemented who I am as a teacher (Margaret, Interview 1).</td>
<td></td>
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<tr>
<td></td>
<td>Capacity Building</td>
<td></td>
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<tr>
<td></td>
<td>Motivated by</td>
<td>• It’s still exciting to me to see these kids put it together. It just, . . it is (Linda, Interview 1).</td>
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</tr>
<tr>
<td></td>
<td>Making a Difference in</td>
<td>• I wasn’t able to see as much difference as you can when you are working [with students] one=to=one (Courtney, Interview 1).</td>
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<td></td>
<td>Lives of Students</td>
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<tr>
<td></td>
<td>Motivated by</td>
<td>• I have a RR teacher mindset, like you. You know that you don’t have it right. You know that you could always be better (Tara, Interview 1).</td>
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<tr>
<td></td>
<td>Realization that there is So Much More to Learn</td>
<td>• It’s also the sense that I can always be learning something new, that’s what it is, and I am. So that’s what keeps me going (Linda, Interview 1).</td>
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</tr>
<tr>
<td>Theme</td>
<td>Category</td>
<td>Descriptive Qualifiers</td>
<td>Coding Examples</td>
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<tr>
<td>Interest (cont.)</td>
<td>Interventionist vs Other Educational Roles (including classroom teacher)</td>
<td></td>
<td>• I really just wanted to remain as an interventionist. Each student has individual needs and I think I can best serve them that way (Helen, Interview 1).</td>
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<td>• I think that it is a totally different... and I know a number of RR teachers who have gone back to the classroom as their choice, they wanted to go. But to me, I can’t understand why they did it (Courtney, Interview 1).</td>
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<td>Similar Frameworks for Learning Literacy</td>
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<td>• We had a great primary team of teachers [including RR teacher] and we went to Four Blocks together (Grace, Interview 1).</td>
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<td>Relationship with RR Teacher in Building</td>
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<td>• Prior to becoming a RR teacher] I worked in the Title One room with the RR teachers for two years (Tara, Interview 1).</td>
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<td>Familiarity with RR Program</td>
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<td>• I noticed they [RR teachers] got results. I listened to kids learn in a 12 to 20 time period over of years, a variety of many kids because there were three RR teachers where I worked (Courtney, Interview 1).</td>
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<td>Seek Personal and Professional Satisfaction</td>
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<td>• I didn’t want to be a classroom teacher. I knew I wanted to work one-on-one. I preferred RR (Tara, Interview 1).</td>
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<td>• In my reading methods class, when students reflected to the prof that they wanted to learn the nuts and bolts of teaching reading, she suggested that we take RR training (Helen, Interview 1).</td>
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<td>Knowledge</td>
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<td>• I could see that teachers did not have a clear idea of what whole language was and that we were letting all phonics win that debate to the detriment of the students. Now, I don’t think teachers understand what whole language is and phonics is easy to understand and they think it is easier to teach (Olivia, Interview 2).</td>
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<td>Learning Literacy and Language Theories and Assumptions</td>
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<td>• It’s not a real, really rule governed language, and then on top of that you have to teach all that on top of all of this, and oh it doesn’t work here, and it doesn’t work there and it doesn’t work here. I think that is a piece of it as well. And, you can get bogged down in it sometimes, I think. It’s making it relevant, I suppose as well, making sure you’re not just going up to the board because that’s the part of the lesson, that’s the component and I’ve got to do it, but making it actually a relevant piece of their learning (Tara, Interview 1).</td>
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<td>Theories and Assumptions Related to RR Students</td>
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<td>• I also realize how much attention is an issue for many learners who are part of Reading Recovery (Linda, Interview 1).</td>
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<td>Theories and Assumptions Related to RR Teaching and Learning</td>
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<td>• I think that children who are self-regulating who can persist in a task, try different things, think about things in a different way, that have confidence they can get to an answer or figure something out (Irene, Interview 1).</td>
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<td>• RR does a good job in teaching children and teaching teachers, that this [self regulation] will come, you just have to try something different. If that didn’t work, you just have to try something else (Irene, Interview 1).</td>
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<td>• I think you learn a lot more and you think a little bit more deeply about the things in those [Behind the Glass] lessons, the components (Tara, Interview 1).</td>
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<tr>
<td>Theories and Assumptions Related to All Student Literacy Learning (RR and non-RR)</td>
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<td>• If they are not internally motivated to learn or if they have bad experiences or they have an attitude issue or maybe they have focus and attention issues, it’s just really hard for a classroom teacher to do that [teach individual students] (Grace, Interview 1).</td>
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<td>Knowledge (cont.)</td>
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<td>• Each child has a different part of the process which can be their stumbling block (Irene, Interview 1).</td>
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<td>RR Framework</td>
<td>Word Work Creates Tension</td>
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<td>• Like word work [laughs]. I could probably work on word work forever. I could probably have somebody tell me how to do word work again and again and again and I don’t know if it just that vast to me or if it is just me (Tara, Interview 1).</td>
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<td>• Approaching word work, someone said that looking back though the running record, they could approach the child’s word work with what that child needed at that time and I realized that I was not connecting the running record to the word work (Irene, Interview 2).</td>
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<td>Book Introductions Require Complex Knowledge</td>
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<td>• He had been in Kindergarten for two years, so chronologically he was a first grade student. TL suggested that I read him some easy RR books and we spent time just reading together, I mostly read to him. When we started any kind of teaching, I was particularly careful with book introductions and my supports (Margaret, Interview 2).</td>
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<td>• It is always different for each child. There are some children that I can give a very brief introduction to because they have had more of that language background and they don’t need as much support and there are others that need a tremendous amount of support even when they are reading at the higher levels because they haven’t had the experiences (Irene, Interview 1).</td>
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**Knowledge (continued)**

<p>| RR Tools for Observing, Monitoring, and Assessment | Observation Survey Tool for Developing Relationships | | • I am able to know them personally far better as well as because we are constantly doing running records and doing the observation surveys and observing them all the time, I feel like I have a much better handle on what they can do in literacy (Tara, Interview 1). |
| | Running Records Facilitate Development of Complex Knowledge | | • Just from the analysis of the running records, I find that to be so important because sometimes, a few times, I might get a little lazy and not analyze the errors and the self-corrections and make assumptions that aren’t really there and not see the patterns that are necessarily there just by listening and doing the running record. So I utilize that information (Margaret, Interview 1). |
| | | | • So, I have been going back about a week’s worth of lessons or so, and when I went back to the running record I found many examples of what I should be doing with a particular student (Irene, Interview 2). |</p>
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<tr>
<td>Word Lists Don’t Always Follow RR Protocol</td>
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<td>• It’s a way of checking to see if they can read words fast and automatic and what words they need work on. We use Fountas and Pinnell here [school] and I know that in the first trimester kids are supposed to be able to read 25 words so every now and then I’ll pull that word list and say let’s see how many words you can read quickly today. I will write it on the paper and record whether they read it slowly or quickly and I will pull it and keep a record of they are doing on those 25 words (Grace, Interview 2).</td>
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<td>Teachers Create Own Instruments</td>
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<td>• One of things I do is I have rhyming cards [picture cards with no words] they are in groups of three so we talk about [lays out 3 rhyming pictures] the sounds because phonemic awareness is just working with sounds. We rhym the picture names. We play, we name the card and I lay them out like this [in a row] and I say, “find me a card that rhymes with ‘box’” and they may pick up the card with a box or they pick up the card with the socks. I want them to be successful, but I also want to assess their skill (Grace, Interview 2).</td>
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<td>Making Use of Data</td>
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<td>• I notice something that they do that’s a reading strategy, I write it down on their bookmark. Then during another lesson, I might say I notice that you made a connection or one day you stretched the sounds out in a word, let’s try that again (Grace, Interview 2).</td>
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<td>Strategic Processing</td>
<td>Multi-modal: Speaking, Listening, Reading, Writing, Observing</td>
<td>Collaborative Dialogue</td>
<td>• I learn from the discussions. I like hearing and sharing about challenging readers or writers and how the teachers work to scaffold the child to work through the challenge (Grace, Interview 1).</td>
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<td>Text Reading and Rereading</td>
<td>• If you look at my books that Marie Clay wrote almost all of it or them are highlighted. At one point or another, going back to it, I thought, going back to it, “oh this is hugely important” and (made marker highlighting gesture with hand). And I go reread those highlights. I go back when I am struggling with a student. Often I see things in a way I am looking at it for a second time, a third time, and a fourth time. Something will jump out at me (Irene, Interview 1).</td>
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<td>Notes and Notetaking</td>
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<td>• Specifically to me, I have to see it and write it. The physical act of writing it down consolidates it for me. It cements it. I think about it while I am writing it and then I can go back and think about it some more (Irene, Interview 1).</td>
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<td>• Writing stuff down helps and I sometimes go back and look at my notes (Courtney, Interview 1).</td>
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<td>• It has given me ideas over the years, seeing other people. Once in a while someone will come in and they will just do a spectacular lesson and you will get some ideas off of it. Sometimes you get some ideas about what not to do, and you think “oh well, yeah, no” like focusing too much on items, things like that. Yeah, I think it [seeing teachers teach lessons bfg] has influenced me in both ways (Tara, Interview 2).</td>
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<td>Observation and Modeling</td>
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<td>• I think that the behind the glass experience perhaps was designed for the people that were on the other side of the glass. It wasn’t really designed for the people who were behind the glass. It gave the people on the other side of the glass an opportunity to learn from her positives and her weaknesses. And I think if you think of if as that model, then it works as a great model (Courtney, Interview 1).</td>
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<td>• The part that I really appreciate with TL is that I don’t go into the book as much as I should, but my first few years I would email TL and go, “Oh my gosh!” and she would email me back, “Page whatever,” And I would go right to the book and say, “Thank you so much TL!” (Grace, Interview 1).</td>
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<td>More Capable Others</td>
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<td>• She [Grace] said, you know, I do that because I think it will help his written fluency. I said, yeah. I can see that, because for some kids, it takes a really long time to learn to write these letters. Have you seen if there’s certain letters that he has a hard time with that skill? Because I know that is definitely something we’ve talked about either in class or somewhere and one thing I’ve tried is try to identify which letters he has trouble with and practice just those. And she’s like, “yeah, yeah, I wondered about wasting time, but I had to do something with his fluency (Olivia, Interview 1).</td>
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| Facility With RR Language | Facility With RR Language | - I can read Marie Clay but Marie Clay is extremely deep, you know that. I’m one of those people, that I can read her, I understand what she is saying, but I can’t take what she’s saying and put it into practice because she’s just so wordy (Grace, Interview 1).  
- I know the books a little better than I did that first year so it’s easier to figure out what’s trip a reader up and I often have a Post-it note on the inside cover with a reminder written on it. I introduce the book to someone, I remember, “Oh, this is a tricky part I want you to understand this part it’s important. That [post-it note] just helps what I need to execute because I’ve done some pretty lousy book introductions, especially when I didn’t know the book well and felt overwhelmed, and it does make or break a lesson for that portion (Margaret, Interview 1) |
| Still Learning-Making Use of Outside Supports to Scaffold Learning | Still Learning-Making Use of Outside Supports to Scaffold Learning | |
| Ability to Scaffold Instruction for RR Student | Ability to Scaffold Instruction for RR Student | - And the vocabulary. Most of my kids really struggle with some of the vocabulary in some of these books. I have to be so careful in my book choices generally (Courtney, Fieldnotes)  
- You can make RR your own. I believe that is foundational about RR, that you follow the lead of the student (Helen, Interview 2).  
- When I don’t go to Continuing Contact, I find myself slipping off the basic guidelines and thought processes. It was the Continuing Contact that helped me see that that I have to do it at the time of need, so to cement it, and to solidify that new word for the student. That just in time learning is powerful (Irene, Interview 2)  
- I think it’s what keeps me on target when I come back. It’s like, “Oh yeah, I haven’t been doing that. …And I think that if you didn’t have that regular professional development, I think that over the course of not very long, that you would not be doing RR any more (Courtney, Interview 1) |
| Recognizes Needs AS a RR Learner | Recognizes Needs AS a RR Learner | |
| MDL Stages (cont) | MDL Stages (cont) | |  
- Self Assessed as Proficiency | Self Assessed as Proficiency | - I feel like I’m in the proficiency range for sure, especially in the past 3 years I have started to feel so much more competent and independent in my ability to assess and know how to handle certain situations and use all of these experiences. It takes some time to build them up for use (Olivia, Interview 1). |
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<td>Proficient but Wants to Continue Learning</td>
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<td>• Because I feel very proficient, pretty high up there, but I also know I have so much more to learn and that it is just going to keep coming and I am going to keep learning and I crave that. I crave being able to find a great book or a great mentor or a great mentor (Olivia, Interview 1).</td>
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<td>• I mean I think there’s still always things to learn and ways to grow, but I know what I’m doing. I can’t always explain and sometimes I just know it (Tara, Interview 1).</td>
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<td>Proficient in Some Areas, Still Needs to Learn More About Others</td>
<td>Proficient in Some Areas, Still Needs to Learn More About Others</td>
<td>• I think that no matter what you would be able to do that because you have a different perspective and you would be able to see things a little differently and maybe without . . . you know, you have such a relationship with that child, that you might not notice something that somebody else would (Tara, Interview 1).</td>
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<td>• You still have to follow the child and that’s why you can plan only so far and then it can go off and then you have to be open to doing other things, like if something comes up in the book (Tara, Interview 1).</td>
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<td>Complex, Flexible, Accessible Knowledge</td>
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<td>• I see how every kid shows you something different and you know it so well that you can really focus on the observing (Linda, Interview 1).</td>
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<th>Emotions</th>
<th>Emotional Episodes</th>
<th>Exhibits emotions in words or physicality</th>
<th>• I had to wait seven years. This is . . .probably longer than that. LoI waited a long time. I waited a long time [voice very emotional] What precipitated me to go into Reading Recovery and become interested in it is . I had two little boys leave in my second grade classroom as non-readers. They did not qualify for special ed. I just. . .I just. . .[voice breaking, tears in eyes] (Grace, Interview 1).</th>
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