PARSONS, SETH ARTHUR, Ph.D. Case Studies of Four Teachers: The Openness of the Tasks They Implement, the Adaptations They Make, and the Rationales They Offer for Adapting. (2008)

Directed by Dr. Gerald G. Duffy. 134 pp.

Research has demonstrated that open literacy tasks—assignments that are authentic, collaborative, challenging, student-directed, and sustained—are beneficial for students' motivation and learning. Researchers contend that teachers must be adaptive when using open instruction. However, little research has examined the relationship between tasks and adaptations. Researchers have further suggested adaptive teaching is a characteristic of effective literacy teachers, and many teacher educators advocate adaptive instruction in teacher preparation programs. Nevertheless, little research has examined how or why teachers adapt their instruction. Therefore, this study examines the openness of the tasks teachers implemented, the adaptations they made, the rationales they offered for adapting, and the relationships among these phenomena.

I used collective case studies to examine four third-grade teachers' instruction. I observed these teachers' literacy instruction to identify tasks and adaptations and conducted post-lesson interviews to ascertain teachers' rationales for adapting. The openness of the task was rated using a rubric. Adaptations and rationales were coded to categorize how and why teachers adapted. I used a rubric to rate the thoughtfulness of both adaptations and rationales.

Through this research I found statistically significant differences in the openness of the tasks teachers implemented and in the thoughtfulness of their adaptations and rationales across closed, moderately open, and open tasks. Teachers adapted more when

using open tasks, and adaptations as well as rationales were more thoughtful when teachers used open tasks. Implications for theory, practice, policy, and future research are discussed.

CASE STUDIES OF FOUR TEACHERS: THE OPENNESS OF THE TASKS THEY IMPLEMENT, THE ADAPTATIONS THEY MAKE, AND THE RATIONALES THEY OFFER FOR ADAPTING

by

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A Dissertation Submitted to
the Faculty of The Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

Greensboro 2008

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CHAPTER I

INTRODUCTION

This dissertation is a study of teachers' literacy instruction, specifically examining the tasks they implement and the adaptations they make. In this chapter, I provide the background of this study. First, I discuss the problem that this research examines and the research questions guiding the study. I then describe the theoretical perspective that frames this study. Next, I review the literature that lays the foundation for this research. Finally, I describe the significance of this study and define pertinent terms.

Problem and Research Questions

Extensive research has indicated that "open" literacy tasks—assignments that are authentic, collaborative, challenging, student-directed, and sustained—are associated with improved student motivation and learning (Guthrie & Humenick, 2004; Miller & Meece, 1999; Perry, 1998; Perry, Phillips, & Dowler, 2004; Purcell-Gates, Duke, & Martineau, 2007; Teale & Gambrell, 2007; Turner, 1995). Researchers have warned, however, that when teachers use open tasks, they must be adaptive because the nature of these assignments allows students to influence the direction of the task (Duffy, 1991; Maloch, 2004; Randi & Corno, 2000; Sawyer, 2004). The course of the lesson, that is, cannot be entirely preplanned. Similarly, researchers have repeatedly identified thoughtful adaptations to instruction as a characteristic of effective teachers (Allington & Johnston, 2002; Morrow, Tracey, Woo, & Pressley, 1999; Pressley, Allington, Wharton-

McDonald, Block, & Morrow, 2001; Taylor & Pearson, 2002; Taylor, Pearson, Clark, & Walpole, 2000; Wharton-McDonald, Pressley, & Hampston, 1998).

Researchers have used various terms to describe adaptive instruction. Darling-Hammond and Bransford (2005) and Snow, Griffin, and Burns (2005) describe this characteristic as "adaptive expertise"; Lin, Schwartz, and Hatano (2005) call it "adaptive metacognition"; Schon (1983, 1987) refers to it as "reflection-in-action"; Borko and Livingston (1989) and Sawyer (2004) refer to it as "improvisation"; and Duffy (2003, 2005) calls it "thoughtfully adaptive teaching." Others have discussed this quality more broadly in terms of teacher metacognition (Zohar, 1999) and teacher self-regulation (Randi, 2004). In spite of the frequent suggestion that teachers must be adaptive when using open instruction, little research has examined teacher adaptations in light of the openness of the tasks they implement. In fact, little research at all has examined the nature of teachers' adaptations or their reasons for making particular adaptations.

Therefore, the following research questions guide this study:

- 1. How open are the tasks teachers implement in their literacy instruction?
- 2. What adaptations do teachers make in their literacy instruction?
- 3. What rationales do teachers offer for the adaptations they make?
- 4. What are the relationships among the openness of the literacy tasks teachers assign, the adaptations they make, and the rationales they provide for adapting?

Theoretical Perspective

A social constructivist perspective guides this study. Social constructivism is based upon theories of teaching and learning presented by Dewey (1938) and Vygotsky

(1978). Central to social constructivism are the ideas that (a) learners actively construct knowledge based upon what they already know and (b) the construction of knowledge occurs through experiences and social interactions within a particular context (Au, 1998; Beck & Kosnik, 2006; Guba & Lincoln, 1994; Oldfather, West, White, & Wilmarth, 1999). Social constructivism acknowledges the complexity of the classroom context, and research has demonstrated that tasks influence the context (Perry, 1998; Turner, 1995). Social constructivism assumes, for example, that students and teachers negotiate academic tasks, altering task features such as the level of challenge and the purpose of the assignment (Perry, Turner, & Meyer, 2006).

Moreover, social constructivism highlights the concepts of Zone of Proximal Development (ZPD) and scaffolding. Vygotsky (1978) presented the ZPD as the zone between what students can accomplish alone and what they can accomplish with assistance. Scaffolding is the assistance offered to students within their ZPD that helps them accomplish something that alone they could not do. Adaptive instruction parallels these concepts. That is, to scaffold students' learning within their ZPD, teachers must adjust their instruction based upon the particular student(s) with whom they are working and upon the particular situations in which they find themselves. Social constructivism also assumes that students actively create knowledge. Because students' participation cannot be fully preplanned, instruction must be continually adjusted in the classroom context (Randi & Corno, 2000; Sawyer, 2004). Therefore, this perspective suggests that teachers must adapt their instruction to provide the appropriate amount of support for students and to teach within a complex, ever-changing environment.

While social constructivism suggests learning is a social process, it also acknowledges the individual's awareness and control of their cognitions. This position is evident in the fundamental assumption of constructivism that individuals actively construct knowledge based upon what they already know (Dewey, 1938; Piaget, 1932). Using this perspective, then, the methodology of this study assumes that (a) teachers are aware of their cognitions, (b) their actions are a result of their cognitions, and (c) they are able to articulate how their cognitions influence their behavior.

In the following section, I review the research that informs this study. First, I review the literature on academic tasks as it pertains to this study. Next, I describe the theory and research on adaptive teaching. Finally, I discuss the research that justifies the importance of studying teachers' rationales for adapting.

Research on Academic Tasks

Academic tasks are a central unit of study in examining students' learning and motivation (Blumenfeld, Mergendoller, & Swarthout, 1987; Doyle, 1983). Previous research has demonstrated tasks are a key determinant of the classroom environment (Perry, 1998; Perry, Turner et al., 2006; Turner, 1995), and social constructivist theory suggests the environment strongly influences motivation and student learning (Dewey, 1938; Vygotsky, 1978). This section reviews the research on open literacy tasks, assignments that are authentic, collaborative, challenging, student-directed, and sustained. Through this review, I illustrate (a) that open literacy tasks are associated with enhanced student motivation and learning, (b) how I borrowed from these studies to create a new framework to examine open literacy instruction, and (c) how my study

addresses a gap in the literature because descriptions of the teachers and their role in implementing open tasks are absent.

Turner (1995) used a social constructivist perspective to study basal and whole-language classrooms, examining the tasks that promoted motivation in primary students. She used observations to document teachers' instruction and students' motivation. These data led her to distinguish between "open" and "closed" tasks. Open tasks were student-directed, allowing students to frame problems and design solutions. Closed tasks were teacher directed, where students worked toward one solution or right answer. Open tasks were associated with more motivation and higher cognitive processes. Turner acknowledged that the classroom environment is composed of more than just tasks. However, the data led her to conclude that tasks were a strong determinant of the classroom environment.

Perry (1998) also used a social constructivist perspective to examine primary students' self-regulated learning (SRL). She used observations and interviews to measure students' self-regulation in classrooms that she characterized as either low or high in promoting SRL. Perry found that the classroom environments, which she conceptualized as tasks, authority structures, and evaluation procedures, distinguished high- and low-SRL classrooms. She found tasks to be a salient feature in determining students' SRL, and she distinguished between simple and complex tasks. Complex tasks addressed multiple goals and large chunks of meaning, extended over time, involved multiple cognitive and motivational processes, and resulted in the creation of varied products. In

completing complex tasks, students regulated their behavior by making choices and controlling the challenge of the assignment.

Also using a social constructivist perspective, Miller and Meece (1999) used observations, interviews, and surveys to study high-challenge tasks. They defined high-challenge tasks as assignments lasting for more than one day and including collaboration and multi-paragraph writing. One researcher worked with teachers to design high-challenge tasks. Classrooms were rated as high- or low-implementation. In high-implementation classrooms, all students adopted more positive goal orientations. In low-implementation classrooms, only high-achieving students adopted positive goal orientations. They also found that students in both low- and high-implementation classrooms preferred high-challenge tasks to low-challenge tasks.

Therefore, it is clear that open literacy tasks are associated with enhanced motivation and learning. Researchers have also suggested that using open tasks benefits the teacher because it promotes differentiated instruction, allows for explicit literacy instruction, and facilitates interdisciplinary instruction (see Parsons, in press for a review). Open literacy tasks, then, benefit both the student and the teacher.

In my study, I documented tasks using a new framework of open instruction. This framework combines task components identified in Turner's (1995) open tasks, Perry's (1998) complex tasks, and Miller and Meece's (1999) high-challenge tasks (see Table 1). This conceptualization of tasks is more detailed than the classifications used by these researchers in an attempt to obtain a more nuanced understanding of tasks.

Table 1

Task Components Measured in Various Studies

	Authentic	Collaborative	Challenging	Self-directed	Sustained
Turner, 1995	X	X		X	
Perry, 1998		X		X	X
Miller/Meece '99		X	X		X
My study	X	X	X	X	X

My research builds on these previous studies not only by using this more detailed framework for tasks but also by examining teachers as they implement tasks. Turner (1995), Perry (1998), and Miller and Meece (1999) analyzed the tasks teachers designed, but during the implementation, they analyzed students' behaviors. These studies, along with others (e.g., Guthrie & Humenick, 2004; Perry et al., 2004; Perry, Phillips, & Hutchinson, 2006; Perry, Hutchinson, & Thaugberger, 2007; Purcell-Gates et al., 2007; Teale & Gambrell, 2007), have established that open instruction enhances students' motivation and literacy learning. None of these studies, however, examined the teacher's actions while she implemented the tasks. As Brophy (2006) explained, social constructivist studies tend to focus on epistemology (e.g., How or what did the students learn?) rather than pedagogy (e.g., How did the teacher teach?). My research analyzed tasks, like these previous studies, but as tasks are implemented, instead of focusing on the effect on students, which has been established through research, I observed how the teachers adapted within these tasks.

This aspect of instruction is important because several researchers have suggested that when teachers use open instruction, they must be adaptive (Duffy, 1991; Maloch, 2004; Randi & Corno, 2000; Sawyer, 2004). In open instruction, students can influence the task; therefore, the course of the lesson cannot be entirely preplanned. As a result, the teacher must adjust instruction in the moment-by-moment occurrences in the classroom. Sawyer (2004), for example, makes the case that instruction emphasizing discussion requires the teacher to be improvisational because the teacher cannot predict what students are going to say. Similarly, Randi, Perry, and their colleagues (Perry et al., 2004, 2007; Perry, Phillips et al., 2006; Randi, 2004) suggest that when teachers use open tasks, which are associated with increased self-regulation in students, the teachers, themselves, must be self-regulating. Therefore, this study uses the lens of adaptive teaching to examine the literacy tasks teachers implement.

Research indicates that open literacy tasks are beneficial for student motivation and learning (Guthrie & Humenick, 2004; Miller & Meece, 1999; Perry, 1998; Perry et al., 2004; Purcell-Gates et al., 2007; Teale & Gambrell, 2007; Turner, 1995). Therefore, it stands to reason that teachers should implement this type of instruction. However, researchers suggest that teachers must adapt their instruction when using open tasks, but there is little research to support this assertion. Therefore, this study examines the openness of the tasks teachers implement, the adaptations they make, their rationales for adapting, and the relationships among these phenomena.

Theory and Research on Adaptive Teaching

Many researchers suggest that teachers who are adaptive are the most effective.

For example, Randi and Corno (2000) indicate, "more and more, 'good' teaching is being characterized as flexible and responsive to different students and classrooms" (p. 680).

More recently, Bransford, Derry, Berliner, Hammerness, and Beckett (2005) explain, "To be effective, teachers need to make moment-by-moment decisions based on their ongoing assessments of the learners' current levels of understanding and their zones of proximal development" (p. 74). Snow et al. (2005) suggest that, "Instructional materials require modifications based on the teacher's pedagogical knowledge in order to suit the particular classroom reality" (p. 64).

These perspectives recognize the complexity of classroom environments. For example, Bransford, Darling-Hammond, and LePage (2005) assert, "On a daily basis, teachers confront complex decisions that rely on many different kinds of knowledge and judgment and that can involve high-stakes outcomes for student futures" (p. 1). Similarly, in their review of the research on reading teacher education, Anders, Hoffman, and Duffy (2000) state

Dilemmas characterize the nature of classroom teaching generally and the teaching of reading in particular; creative responsiveness, rather than technical compliance, characterizes the nature of effective teachers. In short, classrooms are complex places, and the best teachers are successful because they are thoughtful opportunists who create instructional practices to meet situational demands. (p. 732)

Research on exemplary teachers illustrates the complexity of classroom instruction, particularly literacy instruction, as well as points to teachers' on-the-fly adaptations as a quality of effective literacy teachers.

Exemplary Teacher Research

Recently several research projects have focused on the instruction used by exemplary literacy teachers (Allington & Johnston, 2002; Morrow et al., 1999; Pressley et al., 2001; Taylor & Pearson, 2002; Taylor et al., 2000; Wharton-McDonald et al., 1998). The logic behind this line of research is to identify teachers who are highly effective at teaching reading and then observe their instruction to see what they do (and in some cases compare highly effective teachers with less effective teachers to examine differences). These projects identified several themes that are consistent across effective reading teachers from all over the nation. For example, exemplary reading teachers used authentic instruction, made connections with students, encouraged collaboration, used positive reinforcement, had their students read and write a lot, and created respectful environments (Allington & Johnston, 2002; Pressley et al., 2001).

The consistent finding across exemplary teacher research pertinent to this study is that exemplary reading teachers thoughtfully adapt their instruction. For example, in describing effective fourth-grade teachers, Pressley (2002) states, "Although they plan their instruction well, they also take advantage of teachable moments by providing many apt mini-lessons in response to student needs throughout the school day" (p. xiii). Summarizing Taylor and Pearson's (2002) CIERA project on effective schools and accomplished teachers, Duffy and Hoffman (2002) state, "Instruction is a complex

orchestration of techniques and materials that teachers creatively adapt from one instructional situation to another. Glossing over this complexity is misleading" (p. 385). In their book on exemplary first-grade teachers of reading, Pressley et al. (2001) conclude, "Rather than adapt children to a particular method, teachers adapted the methods they used to the children with whom they were working at a particular time" (p. 208).

Therefore, it is evident from this research that effective literacy teachers adapt their instruction on the fly while teaching. This line of research, however, did not seek to understand how or why teachers adapted their instruction. Therefore, this study builds upon exemplary teacher research by more closely studying a particular characteristic associated with effective teachers of reading.

Theories Associated with Adaptive Teaching

Because adaptive teaching is associated with effective instruction, many researchers have presented theories describing adaptive teaching. For example, Darling-Hammond and Bransford (2005) and Snow et al. (2005) call this quality "adaptive expertise"; Lin and his colleagues (2005) refer to it as "adaptive metacognition"; Schon (1983, 1987) calls it "reflection-in-action"; Borko and Livingston (1989) and Sawyer (2004) call it "improvisation"; and Duffy (2003, 2005) refers to it as "thoughtfully adaptive teaching." Researchers have also discussed this characteristic more broadly in terms of teacher metacognition (Zohar, 2006) and teachers as self-regulated learners (Randi, 2004).

Two recent books published by the National Academy of Education (Darling-Hammond & Bransford, 2005; Snow et al., 2005) have presented "adaptive expertise" as the pinnacle of teaching. Adaptive expertise, they explain, strikes a balance between innovation and efficiency. Teachers must be efficient in that they routinize research-based best practices. However, teachers must also be innovative, so they can deal with the unpredictable nature of classrooms. Interestingly, these two books differ regarding when adaptive teaching should be emphasized. Snow and her colleagues clearly present adaptive expertise as a characteristic associated only with experienced teachers. Darling-Hammond and Bransford, in contrast, imply that adaptive expertise can, and should, be facilitated in preservice teacher education programs. An important consideration is how expertise is defined. Snow et al. and others (e.g., Feldon, 2007) equate experience with expertise. Though there is no doubt that experience helps teachers build expertise, it is problematic to equate the two. To date, no research on teachers in classroom contexts has substantiated the efficacy of adaptive expertise.

Lin and his colleagues (2005) have presented the theory of "adaptive metacognition." They argue that teaching is an incredibly unpredictable activity:

Teachers . . . confront highly variable situations from student to student and class to class. One solution does not fill all, and teachers need metacognitive approaches that support adaptation and not just improved efficiency for completing recurrent cognitive tasks. (p. 245)

Complexity, they assert, is heightened because teaching is cross-cultural because teachers and students rarely share the same values and experiences. To deal with this complexity, teachers must be metacognitive. That is, educators must monitor classroom proceedings

and make adjustments to their instruction accordingly. Adaptations are metacognitive because each situation is unique; therefore, teachers must reflect upon their values as well as the situation and adapt correspondingly. Lin (2001) presents the only study that provides empirical data to support the concept of adaptive metacognition. This study was conducted in China, when a teacher used a new instructional technology tool to teach math. He documented that the teacher had to adapt her instruction to reconcile the inclusion of this tool.

Schon (1983, 1987) distinguishes between "reflection-in-action" and "reflection-on-action." Reflection-in-action takes place in the interactive phase of teaching. It captures the on-the-fly thinking associated with adaptive teaching: "reflection-in-action involves simultaneously thinking and doing" (Hatton & Smith, 1995, p. 34). On the other hand, reflection-on-action is reflecting on one's learning in the post-active phase, thinking back on one's teaching after instruction has ended. Reflection-on-action has received much more attention in the research literature because teachers' post-lesson reflections are easier to document than their in-flight thoughts. There is little research examining Schon's theory of reflection-in-action.

Borko and Livingston (1989) have compared teaching to improvisation. For example, they explain, "A teacher begins with an outline of the instructional activity.

Details are filled in during the class session as the teacher responds to what the students know and can do" (p. 476). Likewise, Sawyer (2004) explains that teaching has long been thought of as performance, but he argues that conceiving of teaching as improvisation "emphasizes the interactional and responsive creativity of a teacher working together

with a unique group of students" (p. 13). He suggests that sociocultural and social constructivist perspectives must view teaching as improvisational because dialogue, which is central to these theories, cannot be preplanned. Therefore, teachers must improvise on the fly in response to the direction students take the discussion. Little research has examined teachers' improvisational actions.

Duffy (2003, 2005) has presented the idea of "thoughtfully adaptive teaching."

Duffy and his colleagues (1987; Duffy, 1993) conducted research on teaching teachers to use explicit explanations when teaching comprehension strategies. This research demonstrated that explicit explanations are effective in teaching students to comprehend, but an additional finding was this teaching cannot be scripted or routinized. The teachers who were most effective adapted the teaching procedures they were taught: "Although effective reading teachers operate from a base of routine procedures, their distinguishing feature is an ability to adapt instruction to fit situational needs" (Duffy, 2003, p. 16). From this research on teacher education, Duffy concludes thoughtfully adapting teaching is a key factor in effective literacy instruction. This research, however, did not specifically study how teachers adapted their instruction.

The concepts of metacognition and self-regulation have also been used to describe teachers who thoughtfully adapt their instruction. Metacognition is frequently referred to as the awareness and regulation of one's thinking (Baker, 2005; Duffy, Miller, Parsons, & Meloth, in press). Therefore, metacognitive teachers plan instructional objectives, monitor students' progress toward these objectives, adapt instruction based upon this monitoring, and reflect upon instruction. Adaptive teaching parallels the monitoring and

adjusting aspects of metacognition. The other aspects of metacognition, planning and reflection, have received much more attention in the research literature (e.g., Panasuk & Todd, 2005; Risko, Roskos, & Vukelich, 2005) because studying teachers' thoughts while they are teaching is difficult. Studying how and why teachers adapt their instruction will inform teacher metacognition by examining the interactive phase of teacher metacognition.

Self-regulation, which is closely related to metacognition, is controlling and monitoring one's cognition, motivation, and affect to achieve personal goals (Randi, 2004). Typically, self-regulated learning is viewed as an outcome for students; however, Randi indicates that teachers must be self-regulated to learn from their own teaching. To develop self-regulated students, she maintains, the teacher must be self-regulated. Authentic, complex tasks promote self-regulation (Perry et al., 2004). Teaching is an authentic, complex task, in which teachers must regulate their actions. Citing Manning and Payne (1993), Randi presents three characteristics of self-regulated teaching: high levels of cognitive and affective functioning, proactive teaching based on metacognitive thought processes, and continuing construction of knowledge. She then describes learning contexts that afford teachers opportunities to develop as self-regulated learners, such as environments that encourage invention rather than imitation, that afford students choices, and that include both challenge and support. Randi concludes teaching is learning, and therefore, to develop self-regulated teachers, teacher educators must promote lifelong learning. Nevertheless, no research has studied teacher self-regulated learning.

Many researchers suggest that it is desirable for teachers to adapt their instruction and are theorizing about adaptive teaching. Though this perspective is prevalent, it is not universal. There are researchers who suggest that reading teachers should not be adaptive but rather should teach by closely following resources such as teachers' manuals or scripts. For instance, Moats (2007) suggested that teachers need prescriptive reading programs because they ". . . should have very specific guidance about what to do and when" (p. 19). Nonetheless, though there are alternative perspectives, adaptive teaching has wide support in the research literature but lacks empirical data studying how or why teachers adapt their instruction on the fly while teaching.

Research on Scaffolding

Scaffolding is a line of research that has examined teachers' interactive actions. Scaffolding is the support students are provided in their ZPD that helps them accomplish something they could not have done alone (Bruner, 1975; Meyer, 1993). Scaffolding as a unit of study differs from adaptations as they are conceptualized in this research. Scaffolding includes all supports, whether preplanned or spontaneously created. Adaptations are more focused than scaffolds because they only include those scaffolds that occur on the fly. Adaptations are also more encompassing than scaffolds because they include all adaptations teachers make, instructional and otherwise (e.g., a teacher invents a lesson because she has excess time—this would not be a scaffold, but it would be an adaptation).

Beed, Hawkins, and Roller (1991), Roehler and Cantlon (1997), Many (2002), and Rodgers (2004/5) have all studied teachers' scaffolding of students' literacy learning.

These researchers classified the types of scaffolding teachers used. For example, Beed et al. (1991) created a hierarchy of scaffolding, describing the levels of support teachers could provide. The most teacher support was offered through teacher modeling, followed by inviting students' performance, cueing specific elements, cueing specific strategies, and finally providing general cues, which offered the least teacher support. Roehler and Cantlon (1997) identified the following types of scaffolds: offering explanations, inviting participation, verifying and clarifying understanding, modeling, and inviting contributions.

Many (2002) found that scaffolding was often embedded within instructional situations and included varying amounts of support. Much support came in the form of modeling, supplying information, clarifying, and assisting. Less support with student involvement came in the form of questioning, prompting, and focusing attention.

Scaffolding that included even less teacher support and more student involvement came in the form of encouraging self-monitoring, labeling, and affirming. My study builds on these studies by classifying a specific type of assistance teachers provide students.

Whereas these studies examined all scaffolds, both preplanned and spontaneous, my research only studied the adaptations teachers made on the fly while teaching.

My study builds particularly on Maloch's (2000, 2002, 2004) research on scaffolding. She studied a teacher implementing literacy discussion groups. Like the teachers I studied, the teacher in Maloch's research was moving toward more open literacy instruction. Maloch used an ethnographic approach to collect observations, interviews, and artifacts. She concluded that planning was a key component of the

teachers' scaffolding, but it was not enough. Moment-by-moment scaffolds were also important: "the teacher's in-flight help or scaffolding was critical to students' understanding of the new interactional demands" (Maloch, 2002, p. 110) and "As we move towards student-centered classrooms and ask students to engage in complex tasks, the support, guidance and responsiveness of the teacher across all parts of the process are critical" (Maloch, 2004, p. 18). On-the-fly scaffolds were important because of the complexity of teaching, particularly when implementing open instruction: the teacher must give support that she had not planned on providing.

All these researchers concluded scaffolding is complex. They discovered that teachers plan scaffolds as well as provide on-the-fly scaffolds when teaching. Teachers often used scaffolds to individualize instruction, altering both the content and difficulty level. For instance, Rodgers (2004/5) suggested educators must "decide, on a moment's basis, what to teach and how much help to provide" (p. 527). These researchers also concluded scaffolding is not a linear process, as it is theoretically defined (Meyer, 1993), where teachers first provide much support and gradually release responsibility to the students. Rather, teachers vary the amount of support to match the learners' needs.

Because one of the major findings of this research was that teachers' scaffolds are often created and adapted on-the-fly, my study builds on this research by only examining this *in situ* instruction. Moreover, my research also studies teachers' rationales for adapting their instruction, thereby exploring not only what types of adaptations teachers use but also why they adapted their instruction as they did—their thinking behind the instruction. This aspect was not explored by any of the above studies.

Researchers often discuss the need to be adaptive and have presented theories to describe such instruction. Nonetheless, little research has specifically examined how or why teachers adapt their instruction.

Research on Teachers' Rationales for Adapting

To get a complete picture of adaptive teaching, it is important to study not only how teachers adapt but also why they adapt. Many of the theories presented above assume that teachers adapt their instruction because of the complexity of the classroom. For example, in presenting adaptive expertise, Bransford, Darling-Hammond et al. (2005) state, "On a daily basis, teachers confront complex decisions that rely on many different kinds of knowledge and judgment and that can involve high-stakes outcomes for students' futures" (p. 1). Nonetheless, little research has examined why teachers adapt their instruction in the moment-by-moment occurrences of instruction.

Research on teacher decision-making examined the decisions teachers made while teaching as well as the "antecedents," or causes, of those decisions. In their review of teacher thought processes, Clark and Peterson (1986) discuss the results of six studies examining the decisions teachers made while in the act of teaching. Across all six studies, the majority of teachers' interactive decisions were about learners or instructional procedures and strategies. Other, less frequent, concerns included content and objectives. Another finding consistent across the six studies was the number of interactive decisions teachers made. On average, teachers made an interactive decision every two minutes, leading Clark and Peterson to conclude, "the decision-making demands of classroom teaching are relatively intense" (p. 274).

Though similar, adaptations as they are conceptualized in this study are different from decisions. In this study, the definition of an adaptation requires the teacher action to (a) be non-routine, proactive, thoughtful, and improvisational; (b) include a change in professional knowledge or practice; and (c) be done to meet the needs of a student or an instructional situation Decisions, on the other hand, were much less specific and were inferred from interview questions such as "Were you thinking of any alternative actions or strategies at the time?" The methods used to identify adaptations and decisions are different as well. Adaptations were identified in this study through observation. In the decision-making research, decisions were identified after the lesson when the teacher and the researcher viewed a videotape of the lesson together, discussing the teachers' thoughts. Therefore, adaptations build upon research on decision-making because adaptations are a particular type of decision, where teachers thoughtfully modify their instruction to meet the needs of a student or a situation.

An important aspect of the research on decision-making is the study of antecedents. The antecedent is what caused the teacher to make a decision. Therefore, in addition to studying the decisions teachers made, these researchers also categorized why teachers made decisions. These studies often categorized antecedents in terms of student cues or non-student cues (Clark & Peterson, 1986). Student cues included a decision in response to student behavior, a student question, or selecting a student respondent. Non-student cues, included time constraints, interruptions, and instructional materials.

Consistently, studies found that a majority of antecedents focused on non-student factors (Clark & Peterson, 1986). Although adaptations differ from decisions in important ways

outlined above, the logic behind the study of antecedents informs this study. To fully understand thoughtfully adaptive teaching, it is important to examine why they choose to adapt their instruction.

Summary of Related Literature

In this chapter, I demonstrated how this study of the literacy tasks teachers implement, the adaptations they make, the rationales they offer for adapting, and the relationships among these phenomena addresses gaps in the research literature. Open tasks are beneficial for students' motivation and learning. Little research, however, has examined the teacher as s/he implements this type of instruction despite researchers frequent contention that teachers must be adaptive when using open tasks. Many researchers have suggested that the most effective teachers are adaptive, and adaptive teaching is informed by many theories, such as adaptive expertise, reflection-in-action, teaching as improvisation, teacher metacognition, teachers' as self-regulated learners, and scaffolding. Nonetheless, no research has specifically examined how or why teachers adapt their instruction.

Significance

This study is significant because it addresses important gaps in the literature by studying researchers' contentions that have little empirical support. For example, researchers contend that open tasks require teachers to adapt their instruction, but little research supports this claim. Also, researchers contend, and descriptive research suggests, that effective teachers are adaptive, yet few studies have examined how or why teachers adapt. This study examines the openness of the tasks teachers create, the adaptations they

make, the rationales they offer for adapting, and the relationships among these phenomena. Understanding more about these phenomena will assist teacher educators as they strive to develop effective literacy teachers who implement open tasks and who thoughtfully adapt their instruction to best meet the needs of the students they teach. Moreover, this research paves the way to conducting research tying teachers' adaptations to student achievement. An understanding of the adaptations teachers make, their rationales for adapting, and the circumstances under which they adapt provides a framework for studying how these phenomena relate to students' learning.

Definitions

- 1. Instruction—any time the teacher is teaching, the teacher is helping students, or the students are completing a task. The school in which this study took place was moving toward high-level literacy instruction (i.e., instruction that is authentic, interactive, experience-based, problem-based, student-directed, constructive, connected to real life, and challenging). Within this context, I studied the openness of the tasks teachers assign, the adaptations teachers make, the rationales they offer for adapting, and the relationships among these phenomena.
- Tasks—tasks occur within instruction, and for the purposes of this study, a task is defined as any assignment in which students write.
- 3. Openness of tasks—the extent to which tasks are authentic, collaborative, challenging, student-directed, and sustained. Openness was documented using a rubric (see Appendix A). I created this rubric using previous research on tasks. On the rubric, each of the five criteria is rated as a 1, 2, or 3. The total of the five ratings

represents the degree of openness. A rating of 5-8 represents closed tasks, a rating of 9-11 represents moderately open tasks, and a rating of 12-15 represents open tasks. Below I define each criterion on the rubric, describe the levels for each criterion, and present the research that supports its inclusion on this rubric.

- a. Authenticity—the degree to which the assignment replicates reading and writing activities found outside of a learning-to-read-or-write setting: (a) does not replicate activities found outside of a learning-to-read-or-write setting, (b) replicates activities found outside of a learning-to-read-or-write setting but retains school-like characteristics, (c) replicates activities found outside of a learning-to-read-or-write setting (adapted from Duke, Purcell-Gates, Hall, & Tower, 2006). Purcell-Gates et al. (2007) found that authentic activities were associated with student growth on assessments of reading and writing. Other research also supports the use of authentic activities (Bransford, Derry et al., 2005; Duke et al., 2006-7; Fairbanks, 2000).
- b. Collaboration—the degree to which students work with others on an assignment:
 (a) students work alone, (b) students work with peers minimally, (c) students work with peers throughout assignment (adapted from Miller & Meece, 1999). In identifying scientifically-based reading research, the National Reading Panel (National Institute of Child Health and Human Development, 2000) found collaborative assignments to improve comprehension. Similarly, Guthrie and Humanick (2004), in their meta-analysis of scientifically-based research,

- identified collaboration as one of only four aspects of instruction that motivate students to read.
- c. Challenge—the extent of the writing: (a) letter-/word-level, (b) sentence-level, or (c) paragraph-level (adapted from Miller & Meece, 1999). Miller and Meece explain "Paragraph writing was thought to require more effort and elaboration-type cognitive strategies; therefore, students would find tasks involving this type of writing more challenging than tasks where they demonstrated less complex writing skills" (p. 21).
- d. Self-directed—the degree of choice students have within the activity: (a) no choice, (b) choice that has minimal influence on the task, (c) choice that has substantial influence on the task. Guthrie and Humenick (2004), in their meta-analysis of empirical research, identified choice as a motivating aspect of literacy instruction.
- e. Sustained—whether the activity takes place (a) in one sitting, (b) in one or two days, or (c) spans across three or more days (adapted from Miller & Meece, 1999). Researchers have found that tasks compelling students to sustain their engagement in academic work over a period of time encourages self-regulated learning because students set goals and determine how to obtain them (Miller & Meece, 1999; Perry et al., 2004).
- 4. Adaptation—a teacher action that (a) is non-routine, proactive, thoughtful, and improvisational; (b) includes a change in professional knowledge or practice; and (c) is done to meet the needs of a student or an instructional situation. It is recognized

through observation as teacher actions that are (a) attempts to provide a helpful response to an unanticipated student contribution, (b) diversions from the lesson plan, or (c) adaptations signaled by the teacher's public statement of change of plan. The teacher confirmed, in an interview on the same day as the lesson, that the adaptation was indeed a spontaneous, non-routine change. Adaptations were coded using a coding system developed using a grounded theory approach (Glaser & Strauss, 1967). The thoughtfulness of the adaptation was rated using a rubric (see definition 6).

- 5. Rationale—the reasons teachers offer for adapting. Rationales will be documented by teachers' responses to the interview question, "Why did you make that adaptation?" Teachers' responses to this question will demonstrate the circumstances triggering the adaptation. Teachers' rationales were coded using a coding system developed using a grounded theory approach. The thoughtfulness of the rationale was coded using a rubric (see Definition 6).
- 6. Thoughtfulness of the adaptation and rationale—Adaptations and rationales were rated using a rubric (see Appendix B) to distinguish among considerably thoughtful, thoughtful, and minimally thoughtful. To be a considerably thoughtful adaptation or rationale, the action must meet both of the following criteria: (a) the teacher is showing exemplary or creative use of professional knowledge or practice and (b) the adaptation or rationale is clearly associated with a larger goal the teacher holds for literacy growth (i.e., the adaptation or rationale is motivated by a desire to develop a deep or broad understanding or a conceptual or attitudinal goal). To be rated as thoughtful, the adaptation or rationale (a) must be tied to the specific lesson objective

or to a larger goal the teacher wants to develop and (b) must not meet any of the criteria for "minimally thoughtful." Any of the following criteria qualifies it for a rating of "minimally thoughtful": (a) the adaptation or rationale requires minimal thought, (b) the teacher's use of professional knowledge or practice is fragmented, unclear, or incorrect, or (c) the adaptation or rationale does not contribute to the development of either a larger goal or a specific lesson objective.

Conclusion

This chapter provided the background of this study. I first described the problem that this research studies and the research questions that guide the research. Next, I outlined the theoretical perspective that frames this study. I then reviewed the literature that lays the foundation for this research. Finally, I described the significance of this study and defined pertinent terms.

CHAPTER II

METHODS

Researchers have repeatedly found that open tasks are associated with enhanced motivation and learning. However, researchers contend that teachers must be adaptive when using open instruction. Yet, no research has studied how the openness of the task is related to teacher adaptations. Researchers have further suggested that the most effective teachers adapt their instruction to best meet students' needs. Nevertheless, little research has examined how or why teachers adapt their instruction. Therefore, this study examines the openness of the tasks teachers implemented, the adaptations they made, the rationales they offered for adapting as they do, and the relationships among these phenomena.

In this chapter, I describe the methods used in this study. I first explain the research design. Then I describe the setting and participants. Next, I outline the data collection and analysis procedures. I then discuss how I ensure trustworthiness in this research. Finally, I describe the limitations of this study.

Design

This research uses collective case studies (Stake, 2005) to study four teachers' literacy instruction. Specifically, I examined the openness of the tasks teachers implemented, the adaptations they made, the rationales they offered for adapting, and the relationships among these phenomena. Collective case studies are multiple instrumental case studies (Creswell, 2005). Unlike *intrinsic* case studies, which examine a case

because the case itself is of interest, *instrumental* case studies examine a phenomenon: "the case moves to the background of interest, for it is being used to understand something else" (Barone, 2004, p. 9). This focus on the phenomenon is especially true in collective case studies where several cases are examined not to study the cases themselves but rather to learn more about the phenomenon under study. In this study, the cases provide insight into the openness of the tasks teachers implement, the adaptations they make, the rationales they offer for adapting, and the relationships among these phenomena. Multiple cases are used to examine patterns across teachers, which allow insights into the phenomena, not just the idiosyncrasies of one teacher's instruction.

Setting

This research took place at Southern Elementary School (pseudonym), a high-performing Title I school in Greensboro, North Carolina. Eighty-six percent of the students at Southern receive free or reduced lunch, 92% are minority, 35% are English language learners, and 50% come from single-parent families. Southern Elementary and the University of North Carolina at Greensboro (UNCG) have had a professional development school (PDS) relationship for 11 years. Two teacher candidates (a junior and a senior) intern in nearly every classroom in the building three days a week.

Therefore, the teachers and students are used to having teacher candidates, university supervisors, and researchers in the classroom. Southern has performed well on standardized tests of reading over the last seven years, raising its reading scores on the state end-of-grade (EOG) test from 50% passage rate to 79%. Over the last four years at least 73% of the students passed the state reading test each year. Such impressive

improvements led to numerous honors such as "North Carolina School of Progress," "North Carolina School of Distinction," "Title I Distinguished School," and "Piedmont Consortium Lighthouse School," which was part of a report on high-poverty schools that were "beating the odds" (Strahan, 2002).

After experiencing such success, Southern's high-stakes test scores began to plateau over the last three years. In the 2005-2006 school year, the school did not meet No Child Left Behind's Adequate Yearly Progress in reading. This disappointment led to school-wide discussions on how to break this plateau. Working with UNCG, the administrators and teachers in this school developed a plan to move beyond a focus primarily on skills and strategies instruction, which had helped them achieve success in the past, to focus also on creating empowered and motivated readers. Staff meetings were devoted to elicit from teachers instruction that would work toward this end. The result was a focus on "high-level" literacy instruction. The teachers described such instruction as authentic, interactive, experience-based, problem-based, student-directed, constructive, and challenging. UNCG collaborated with the school to develop high-level literacy instruction. This arrangement follows findings from research on effective professional development because it is "homegrown," collaborative, ongoing, relevant, structured, and responsive to teachers' needs (Hawley & Valli, 1999; Sailors, in press; Taylor, Pearson, Peterson, & Rodriguez, 2005). As a university supervisor of interns placed at Southern, I participated in this professional development effort, working specifically with the third grade teachers.

To work with these teachers, I attended their grade-level meetings to participant in their team planning. I acknowledge that inherent power differentials existed because I was associated with the university, and thus I am potentially perceived as an outsider. Nonetheless, I did not approach these meetings as an "outside expert." Following guidelines for qualitative research (Creswell, 2003; Lincoln & Guba, 1984; Maxwell, 2005; Patton, 1990) and research on effective PDSs (Antonek, Matthews, & Levin, 2005; Book, 1996), I have developed positive, professional relationships with administrators, teachers, staff, and students since I began working with this school. For example, I have supervised interns and student teachers in classrooms every week; consistently attended staff meetings; served on the school's curriculum and PDS committee; involved teachers in on-site methods courses; helped plan and participated in professional development activities; conducted research in classrooms; served as a "lunch buddy" for an at-risk student in the school; participated in student-intern campus cleanup activities; facilitated end-of-grade test preparation ("Camp EOG") sessions for students; attended various formal and informal functions, such as end-of-the-year staff celebrations and student ceremonies; and engaged in numerous informal conversations with administrators, teachers, and students. Therefore, I have attempted to position myself as a supporter for the administrators and teachers, never telling them what to do but rather working collaboratively to do what is best for the K-5 students and teacher candidates in the school.

Using and maintaining this position, my input in the grade-level meetings was based upon research and theory, particularly the components of tasks reviewed in the

previous chapter and on the rubric (see Appendix A). I shared the rubric with the gradelevel team and used it to guide my discussion of literacy assignments. At the outset of my involvement, I was reserved as I eased into becoming a participant in these meetings (i.e., field entry, Patton, 1990). Throughout my time with them, I became more involved. Unfortunately, as is often the case with teachers' planning time, the grade-level meetings focused more on "house-keeping" topics, such as field trips and schedules, than on instruction. However, one meeting in particular was successful in encouraging teachers to discuss high-level literacy instruction. One teacher discussed how she felt constrained by her schedule that included guided reading, word study, writer's workshop, and sustained silent reading. I suggested a more flexible schedule that allowed for all these instructional components within a literacy block that gave students, and the teacher, more choice and flexibility in what they were doing. The teachers were excited about such a design and one of them implemented it the following week. Another meeting that focused on highlevel literacy instruction focused on the rubric where teachers and I brainstormed tasks that could incorporate more authenticity, collaboration, challenge, choice, and extended emphasis.

The aim of this study was not to examine the efficacy of this professional development. The professional development merely served as the context of the study, which examined the openness of the tasks teachers implemented, the adaptations they made, the rationales they offered for adapting, and the relationships among these phenomena.

Participants

The participants in this study were four third-grade teachers, who make up the grade-level team at Southern Elementary School. The four teachers in this study had varying levels of experience in the profession and in the third grade (see Table 2).

Ms. James (all names are pseudonyms) is a black woman in her sixteenth year teaching. This was her third year at Southern, though it was her first in the third grade; for the previous two years, she taught fourth grade. She completed her teacher education at North Carolina Agricultural and Technical State University. Ms. James is an enthusiastic teacher who develops strong relationships with her students. Her literacy instruction tends to follow the state-adopted basal materials.

Ms. Kim is a white woman in her eighth year teaching. She completed her teacher education at High Point University. Ms. Kim is a Nationally Board Certified teacher, who has been at Southern teaching second grade for her entire career, so this was her first year teaching third grade. Because she moved from second grade to third grade, Ms. Kim looped with her students. Therefore, she is teaching the same group of students she taught last year. Ms. Kim is a patient teacher who sets clear expectations. She often integrates literacy and subject matter.

Ms. Massey is a white woman in her fourth year teaching. She completed her teacher education at UNCG. Through the PDS relationship with Southern, Ms. Massey spent two years interning at the school, culminating with student teaching. The school hired her after she graduated. She taught first grade her first three years, moving to third grade this year. At the time of this study, she was about half way through her coursework

towards a master's degree at UNCG in reading education, which certifies reading specialists. Ms. Massey was also working towards National Board Certification this year. Her classroom runs very smoothly as students follow established routines and procedures. She holds high expectations for students and they generally fulfill them. Ms. Massey is a reflective teacher who is quick to implement new ideas from professional development, including practices learned through her master's courses.

Ms. Anderson is a black woman in her third year teaching. She also completed her teacher education at UNCG, interning at Southern and joining the staff after graduation. Ms. Anderson had taught third grade for her entire career. Ms. Anderson is a very enthusiastic teacher who has great rapport with her students. For the previous three years, her entire career, Ms. Anderson taught with a veteran team of teachers at the third grade level. These teachers focused their instruction on raising high-stakes test scores and used programmatic instruction toward this end. This group of teachers planned their instruction as a group, so all classes were doing the same assignments throughout the day, every day of the week. Ms. Anderson is open to new teaching ideas, though she is accustomed to the more rigid teaching style that was dictated by her previous grade-level team.

I used purposeful sampling to select these participants. According to Creswell (2005), purposeful sampling is intentionally selecting individuals to understand a central phenomenon. The central phenomena of this study are literacy tasks, teachers' adaptations, and teachers' rationales for adapting. Teachers were chosen from this particular school because there was a school-wide effort to move toward high-level

instruction. Therefore, these teachers would be implementing, it seems, more open literacy tasks than schools that do not have such an initiative. Therefore, this school's professional development effort toward high-level literacy instruction increased the chances of observing the central phenomena of this study: open literacy tasks, teachers' adaptations, and teachers' rationales for adapting. In addition, the third-grade teachers were purposefully selected because they represent a diverse group of teachers. On this grade-level team, there were novice and veteran teachers, black and white teachers, teachers working towards advanced degrees, teachers with or working towards advanced certifications, and teachers from various local teacher education institutions, including two from UNCG's program. This sampling, then, provided a diverse cross section of teachers (see Table 2).

Table 2
Summary of Participants

			Years				
	Yrs teach	Yrs in 3 rd gr	at Hunter	Race and Gender	UNCG grad?	National boards	Master's degree
Ms. James	16	1	3	Black/F	No	No	No
Ms. Kim	8	1	8	White/F	No	Yes	No
Ms. Massey	4	1	4	White/F	Yes	In prog.	In prog.
Ms. Anderson	3	3	3	Black/F	Yes	No	No

Data Collection

This study examined the openness of the tasks teachers implemented, the adaptations they made, the rationales they offered for those adaptations, and the

relationships among these phenomena. Although professional development was part of the setting of this study, this research did not examine professional development; it merely served as the context. To study these phenomena, I collected observations, teacher lesson plans, and teacher interviews. I used multiple data sources in this study (see Table 3).

Table 3

Data Sources in This Study

Phenomenon	Data Sources
	- Participant observation of grade-level meetings
Tasks	- Teacher lesson plans
	- Observations of instruction with field notes
A 1	- Observations of instruction with field notes
Adaptations	- Teacher interviews with transcriptions
December Adopting	- Observations of instruction with field notes
Reasons for Adapting	- Teacher interviews with transcriptions

Beginning in September and ending in December, I studied one teacher at a time, observing her literacy instruction frequently across three weeks and interviewing the teacher after each observation. Studying the teacher's instruction over a three-week period enabled me to become familiar with the environment of the classroom. The order in which I studied the teachers was based upon experience. I began with the most experienced teacher first and ended with least experienced teacher. This order allowed

the less experienced teachers more time to establish their instruction before data was collected in their classroom.

Observations

Observations enabled me to identify both the tasks the teachers assigned and adaptations they made. I observed each teacher's literacy block for three consecutive weeks. Within this three-week period, I observed the teacher's literacy block nine times, three observations each week. Table 4 outlines the amount of time I observed each teacher.

Table 4

The Amount of Time Spent Observing in Each Teacher's Classroom

	1	2	3	4	5	6	7	8	9	Total
Ms. James	1:23	1:09	1:00	2:07	1:08	1:15	1:23	1:23	1:20	12h 08m
Ms. Kim	:46	:51	1:03	:44	:52	1:15	:59	1:07	:38	8h 15m
Ms. Massey	1:15	:38	:46	2:22	1:18	1:46	1:50	2:45	1:37	14h 17m
Ms. Anderson	1:46	1:11	1:53	1:36	1:38	1:27	:45	1:15	1:10	12h 41m

All observations were audiotaped, so I could revisit the classroom proceedings as needed. I used an observation protocol to record field notes (see Appendix C). This protocol has two sections. One section has space to record the name of the teacher being observed, the date of the observation, and the time of the observation. The second section has space for recording field notes on tasks the teachers assigned and adaptations the teachers made. I was aware of the teacher's plans because I attended the teachers' grade-level meetings and because I obtained a copy of the teacher's lesson plan each day. When I observed a

task based upon the criteria set forth in the definitions section (any assignment in which students write), I recorded it in my field notes. Likewise, when I observed what I perceived to be an adaptation based upon the criteria set forth in the definitions section (teacher actions that are responses to unanticipated student contributions, diversions from the lesson plan, or public statements of change), I recorded the adaptation in the field notes. On the same day as the observation, I "cooked" my field notes (Hubbard & Power, 2003), typing my handwritten field notes. Through this process, I filled in from memory what I could not document while observing.

Teacher Interviews

After each observed lesson, I interviewed the teacher. Interviews occurred on the same day as the observation. All interviews were audiotaped and transcribed for analysis. A semi-structured interview protocol guided these interviews (see Appendix D). In interviews I verified the adaptations were indeed spontaneous changes by asking, "When I saw you (explain adaptation) during the lesson, was that a spontaneous change, something you had not planned?" If the teacher indicated it was an adaptation, I asked, "Why did you make that change?" The teacher's response to this question demonstrated her rationale for adapting as she did. This interview is semi-structured because I probed as needed, encouraging elaboration to elicit the most complete answer to the question (Creswell, 2005).

Measures

In this study, I used a rubric to rate the openness of the tasks the teachers implemented; a previously created coding systems to document the types of adaptations

made and the types of rationales teachers offered for adapting; and a previously developed rubric to rate the thoughtfulness of the adaptations and rationales (Duffy et al., 2008).

Rating tasks. Through observations, I identified tasks. A task was defined as any literacy assignment in which students write. To document the openness of the tasks, I used a rubric (see Appendix A) to rate the assignments on five task components: authenticity, collaboration, challenge, student directed, and sustained. Using this rubric, tasks were classified as closed (total score of 5-8), moderately open (9-11), or open (12-15). Construct validity of this rubric is based upon previous research on these task components, which demonstrates that they enhance students' motivation and literacy learning (see "Definitions;" Duke et al., 2006/7; Guthrie & Humenick, 2004; Miller & Meece, 1999; Perry, 1998; Perry et al., 2004; Purcell-Gates et al., 2007; Teale & Gambrell, 2007; Turner, 1995). Reliability of this rubric was established using inter-rater reliability. Two other researchers and I independently rated 30 tasks at the beginning of analysis. We then used Spearman's Rho to determine the inter-rater reliability of the task rubric across these 30 ratings. The results indicated an inter-rater reliability of sasks, thereby establishing high reliability in using the rubric to rate the openness of tasks.

Each time I observed, I examined my observation field notes to identify and accurately describe each task. I then rated the task using the rubric. Therefore, I had a detailed description of the activity and the rating from the rubric. In this way, I accurately documented tasks.

Coding adaptations and rationales. In previous studies examining teachers' adaptations, a team of researchers used the research literature and our experiences studying teachers' adaptations to create codes for the adaptations that teachers made and their rationales for adapting (Duffy et al., 2008). We used constant comparative analysis to refine the codes. That is, we evaluated the appropriateness of codes in light of new data, ensuring that the codes reflected the data (Glaser & Strauss, 1967). To ensure reliability, we coded all adaptations and rationales together as a research team by reading each adaptation and each rationale aloud and coding the adaptation and rationale. At least three members of the five-person research team had to be present to code data, though most coding sessions included all five members. For an adaptation or rationale to be coded, all researchers agreed on the code, thereby promoting reliability in coding. Following constant comparative method, discrepancies in codes were discussed and codes were refined as needed. The coding systems created through this two-year process are presented in Table 5 and Table 6.

Rating the thoughtfulness of adaptations and rationales. As the research team coded adaptations and rationales in previous studies, it became apparent that adaptations and rationales varied widely in terms of thoughtfulness. Therefore, we created a rubric to capture this variation (see Appendix C). To be rated at "considerably thoughtful," an adaptation or rationale must evidence an exemplary or creative use of professional knowledge or practices and be clearly associated with a larger goal the teacher holds for literacy growth.

Table 5

Coding System for Adaptations

- 1. The teacher modifies the lesson objective
- 2. The teacher changes means by which objectives are met (e.g., materials, strategy, activity, assignment, procedures, or routines)
- 3. The teacher invents an example or an analogy
- 4. The teacher inserts a mini-lesson
- 5. The teacher suggests different ways students could deal with a situation or problem
- 6. The teacher omits certain planned activities or assignments (for reasons other than lack of time) or inserts an unplanned activity or assignment
- 7. The teacher changes the planned order of instruction

Table 6

Codes for Rationales

- A. Because the objectives are not met
- B. To challenge or elaborate
- C. To teach a specific strategy or skill
- D. To help students make connections
- E. Uses knowledge of student(s) to alter instruction
- G. To check students' understanding
- H. In anticipation of upcoming difficulty
- J. To manage time
- K. To promote student engagement

An adaptation or rationale was rated as "minimally thoughtful" if it meets any of the following criteria: it includes minimal thought; it is a fragmented, unclear, or incorrect use of professional knowledge or practice; or it does not contribute to a lesson objective or goal. An adaptation or rationale is rated "thoughtful" if it is tied to the specific lesson objective or larger goal but does not meet any of the criteria for "minimally thoughtful."

To ensure reliability, the research team rated the thoughtfulness of all adaptations and rationales together. We read each adaptation and each rationale aloud and rated its thoughtfulness using the rubric. At least three members of the five-person research team had to be present to rate the thoughtfulness of adaptations and rationales, though most coding sessions included all five members. For the thoughtfulness of an adaptation or rationale to be rated, all researchers agreed on the code, thereby promoting reliability in rating the thoughtfulness of adaptations and rationales.

Data Analysis

I followed the data analysis procedures recommended by Huberman and Miles (1994; Miles & Huberman, 1994). They proposed three components of data analysis: data reduction, data display, and conclusion drawing. I first analyzed data collected in each observation for each teacher. For example, I rated the openness of the tasks assigned, coded the adaptations and rationales, rated the thoughtfulness of the adaptations and rationales, and looked for relationships among these phenomena within each observed lesson. I then analyzed data for each teacher. After the three weeks of collecting data in Ms. James' classroom, for example, I looked for themes and patterns in the tasks, adaptations, rationales, and the relationships among these phenomena across all nine days

of data collection. Finally, I analyzed data across cases. After collecting and analyzing the data from each of the teachers, I analyzed the data across the four teachers. Data collection and data analysis were reciprocal (Creswell, 2003; Huberman & Miles, 1994). That is, I began data analysis as soon as data collection began and continued to analyze data throughout data collection as described above (Maxwell, 2005; Toma, 2006).

To answer the first research question (How open are the tasks teachers implement in their literacy instruction?), I first reduced the data by rating each task I observed using a rubric (see Appendix A). I then displayed the data with a table showing a description of the task from my observation field notes, the rating of the task for each observation, and the classification of the task based upon the rating (see Table 7).

Table 7

Example of Displayed Data on Tasks

Teacher/lesson	Task	Rating/Classification
Massey / 1	Students write letter to friend recommending a book.	12 / Open
Massey / 2	Students complete fill-in-the-blank grammar worksheet.	5 / Closed

This table displayed all the tasks that the teachers implemented. Using this table, I counted the total number of tasks each teacher implemented as well as the number of closed, moderately open, and open tasks each teacher implemented. With these data, I conducted a chi-square goodness-of-fit test to test the null hypothesis that there were no differences among teachers in the openness of the tasks they implemented. I drew

conclusions by examining the results of the chi-square test and by looking for themes and patterns within and across cases. For example, did certain teachers assign more tasks?

Did certain teachers assign more open tasks? Was there a relationship between number of tasks and openness of tasks? Did more experienced teachers have more open tasks than less experienced teachers?

To answer the second research question (What adaptations do teachers make in their literacy instruction?), I first reduced the data by coding each adaptation and rating its thoughtfulness. I then displayed the data, overall and for each teacher, using a table to show the number of adaptations for each code along with its thoughtfulness rating (see Table 8).

Table 8

Example of Displayed Data on Adaptation

Adaptation	N	Min	Thought	Consid
1. Modifies the lesson objective				
2. Changes means by which objectives are met				
3. Invents an example or analogy				
4. Inserts a mini-lesson				
5. Suggests a different perspective to students				
6. Omits a planned activity or assignment				
7. Changes the planned order of instruction				
Total				

Therefore, I could determine the frequency of each code used to describe adaptations, overall and for each teacher. I could also determine the distribution of minimally thoughtful, thoughtful, and considerably thought ful adaptations overall and for each teacher. With these data, I conducted a chi-square goodness-of-fit test to test the null hypothesis that there were no differences among teachers in the thoughtfulness of the adaptations they made. I drew conclusions by examining the results of the chi-square test and by looking for themes and patterns within and across cases. For example, how did teachers adapt most? How did adaptations vary from teacher to teacher? How did thoughtfulness of adaptations vary from teacher to teacher? Were more experienced teachers' adaptations different from less experienced teachers? How did the type of adaptation relate to the thoughtfulness?

To answer the third research question (What rationales do teachers offer for the adaptations they make?), I first reduced the data by coding each rationale and rating its thoughtfulness. I then displayed the data, overall and for each teacher, using a table to show the number of rationales for each code along with its thoughtfulness rating (see Table 9). Therefore, I could determine the frequency of each code used to describe rationales, overall and for each teacher. I could also determine the distribution of minimally thoughtful, thoughtful, and considerably thoughtful rationales overall and for each teacher. With these data, I conducted a chi-square goodness-of-fit test to test the null hypothesis that there were no differences among teachers in the thoughtfulness of the rationales they implemented. I drew conclusions by examining the results of the chi-square test and by looking for themes and patterns within and across cases. For example,

what rationales did teachers offer most? How did rationales vary from teacher to teacher? How did the thoughtfulness of rationales vary from teacher to teacher? Were more experienced teachers' rationales different from less experienced teachers? How did the type of rationales relate to the thoughtfulness?

Table 9

Example of Displayed Data on Rationales

Rationale	N	Min	Thought	Consid
A. Because the objectives are not met				
B. To challenge or elaborate				
C. To teach a specific strategy or skill				
D. To help students make connections				
E. Uses knowledge of student(s) to alter instruction				
G. To check students' understanding				
H. Anticipation of upcoming difficulty				
J. To manage time				
K. To promote student engagement				
Total				

To answer the fourth research question (What is the relationship among the openness of the literacy tasks teachers assign, the adaptations they make, and the rationales they provide for adapting?), I displayed the reduced data on tables. I first analyzed the relationships between tasks and adaptations, both overall and for each teacher. I determined the openness of the task the students were completing when each adaptation occurred. Using these data, I determined the number of adaptations that

occurred during closed tasks, during moderately open tasks, and during open tasks. I then determined the average number of adaptations within closed, moderately open, and open tasks. Next, I analyzed the thoughtfulness of the adaptations that occurred during closed, during moderately open, and during open tasks, both overall and for each teacher. Therefore, I determined the number of minimally thoughtful, thoughtful, and considerably thoughtful adaptations that occurred within closed tasks, moderately open tasks, and open tasks (see Table 10). With these data, I conducted a chi-square goodness-of-fit test to test the null hypothesis that there are no differences in the thoughtfulness of teachers' adaptations when using closed, moderately open, and open literacy tasks.

Table 10

A Display of the Number of Adaptations Rated as Minimally Thoughtful, Thoughtful, and Considerably Thoughtful During Closed, Moderately Open, and Open Tasks

	Minimal	Thoughtful	Considerable
Closed			
Mod Open			
Open			

I then examined the types of adaptations teachers made within closed, moderately open, and closed tasks. For example, I determined how many times a teacher "inserted a minilesson" when using closed tasks, when using moderately open tasks, and when using open tasks.

Next, I analyzed the relationships between tasks and rationales, both overall and for each teacher. I analyzed the thoughtfulness of the rationales offered for adaptations

that occurred during closed tasks, during moderately open tasks, and during open tasks, both overall and for each teacher. Therefore, I determined the number of minimally thoughtful, thoughtful, and considerably thoughtful rationales for adaptations that occurred during closed tasks, during moderately open tasks, and during open tasks (see Table 11). With these data, I conducted a chi-square goodness-of-fit test to test the null hypothesis that there are no differences in the thoughtfulness of teachers' rationales when using closed, moderately open, and open literacy tasks.

Table 11

A Display of the Number of Rationales Rated as Minimally Thoughtful, Thoughtful, and Considerably Thoughtful During Closed Tasks, Moderately Open Tasks, and Open Tasks

	Minimal	Thoughtful	Considerable
Closed			
Mod Open			
Open			

I then examined the types of rationales teachers offered within closed, moderately open, and closed tasks. For example, I determined how many times a teacher adapted "because the objective was not met" when using closed tasks, when using moderately open tasks, and when using open tasks.

Finally, I examined the relationships between adaptations and rationales. For this analysis, I examined adaptation and rationale pairs. First, I looked at the code for each adaptation along with the code for the associated rationale to determine if there are certain adaptation and rationale pairs that occurred more frequently than others. Then I

examined the thoughtfulness rating for each adaptation along with the thoughtfulness rating for the associated rationale to determine if minimally thoughtful rationales were offered for minimally thoughtful adaptations and so on.

Trustworthiness

Toma (2006) borrows from Maxwell (1996) and Miles and Huberman (1994) to identify four aspects of trustworthiness in qualitative research: credibility, transferability, dependability, and confirmability. Credibility refers to the degree to which the researcher accurately represents the phenomena under study. Credibility was ensured in this study by not only rating each task but also describing each task to demonstrate why it received the openness rating it did. I also ensured credibility by working closely with the participants and by audiotaping all observations and interviews (interviews were also transcribed). Also, every adaptation was verified with the teacher (i.e., member checking). Finally, coding data as a research team ensured that the reduced data accurately represented the raw data.

Transferability refers to the extent to which the results are applicable to similar situations including different people or a different setting. Transferability was addressed in this research by studying multiple teachers and by describing the tasks and adaptations. Analyzing several cases allowed me to move towards transferability because the themes and patterns of the phenomena were studied across four different cases. Lincoln and Guba (1984) recommend that qualitative researchers promote transferability by using "thick description" of the context so someone else could assess the similarity between the research context and their own context (p. 126). Therefore, detailed descriptions of the

context allow others to determine the extent to which my findings are applicable to their situation. Borko, Liston, and Whitcomb (2007) and Toma (2006) suggest the researcher is responsible for providing detailed descriptions of the context, and the reader is responsible for determining the degree of transferability to their setting.

Dependability refers to the extent to which the research is stable. Qualitative research is designed to be evolving in nature, refining the study in light of the data collected (Creswell, 2003). Nonetheless, the design and the procedures of the study need to remain consistent throughout the research (Miles & Huberman, 1994). In this study, I ensured dependability by using clear research questions and a clear theoretical framework to guide the study, by studying multiple cases, and by collecting the same data across all cases. I used the same observation protocol (see Appendix C) for all observations and the same interview protocol (see Appendix D) to guide all interviews. Moreover, I established construct validity and inter-rater reliability of the rubric used to rate tasks. Also, all adaptations and rationales were coded by a research team with unanimous agreement required for codes and thoughtfulness ratings, thereby encouraging reliability in these measures.

Confirmability indicates the research is free of bias. That is, someone other than the researcher can confirm the legitimacy of the findings. In my study, I addressed confirmability by using research questions and theoretical framework to guide data collection and data analysis procedures, which limited the imposition of my own biases. Inter-rater reliability was established for the rubric used to rate the openness of the tasks. I limited bias in the coding systems by coding all adaptations and rationales as a team.

Also, I confirmed adaptations were spontaneous changes by verifying that they were adaptations with the teacher, and I determined their rationales by the teachers' own responses. Therefore, I took strides to limit my bias in the data I collected and the findings I induced.

Qualitative research is often criticized as being overly inferential (Denzin & Lincoln, 2005). I ensured rigor in this qualitative study by promoting credibility, transferability, dependability, and confirmability.

Limitations

One limitation of this study is its short duration. To obtain multiple perspectives of the phenomena examined in this study, I chose to conduct case studies of four teachers. This sampling decision adds rigor to my research in the sense I obtained data from multiple settings. This decision also weakens the study because the duration of each case study is shortened: I only spent three weeks in each classroom. Therefore, the timing of my observations could skew the instruction I observed in each classroom and the conclusions I drew about each case. A staple of conducting high-quality qualitative research is long-term involvement in the field (Maxwell, 2005). While this study did last throughout one academic semester, the time in each classroom is a limitation of this study.

Another limitation is the setting. Like selecting the participants and the duration of this study, choosing the setting included tradeoffs. Studying four teachers within one school, a school moving toward more high-level literacy instruction, likely allowed me

more opportunities to study the central phenomena of the study. However, this decision reduces the likelihood of being generalized to other settings.

The professional development in this study was a limitation. The time devoted to this professional development was limited. Though two of the four school-wide faculty meetings were devoted to developing high-level literacy, only two of the eight grade-level meetings I attended focused on this topic. If more time was devoted to helping teachers design high-level literacy, the teachers probably would have been better prepared to design and implement this type of instruction.

Conclusion

This chapter described the methods used in this study. First, I discussed the collective case study design. Next, I described the setting and participants. I then outlined the data collection and analysis procedures. Finally, I described how I ensured trustworthiness in this research and the limitations of this study.

CHAPTER III

RESULTS

Open tasks are associated with enhanced student motivation and literacy learning. Researchers suggest that open tasks require teachers to adapt their instruction (Duffy, 1991; Maloch, 2004; Randi & Corno, 2000; Sawyer, 2004). No research, though, has examined the relationship between the openness of tasks and teacher adaptations. Despite the fact teacher educators have long proposed that the most effective teachers adapt their instruction to best meet students' needs, little research has specifically examined how or why teachers adapt their instruction. In this study, I used collective case studies to examine the tasks four teachers implement during literacy instruction, the adaptations they make during literacy instruction, their rationales for adapting as they do, and the relationships among these phenomena. I observed each teacher's instruction across three weeks to identify tasks and adaptations. I also interviewed teachers after each observation to verify that adaptations were indeed spontaneous changes and to obtain teachers' rationales for adapting. In this chapter, I answer each of the four research questions guiding this study. For all questions, I first discuss the results within individual cases and then describe the results I discovered across all cases.

Research Question 1

The first research question guiding this study was, "How open are the tasks teachers implement in their literacy instruction?" To answer this question, I identified

tasks through observations and rated the openness of the task using a rubric (see Appendix A). For the purposes of this study, a task was defined as any activity requiring students to write. The rubric used to rate the openness of tasks consists of five sections (authenticity, collaboration, challenge, self-directed, and sustained). Each of the five components received a score of 1, 2, or 3; therefore, total scores for tasks ranged from 5 to 15. Tasks were classified as "closed" if the were rated 5-8, as "moderately open" if they were rated 9-11, and as "open" if they were rated 12-15.

Individual Cases

Ms. James. Across the three weeks I observed in Ms. James' classroom, she implemented 21 tasks. Of the 21 tasks she implemented, 18 were rated as closed, two were rated as moderately open, and one was rated as open (see Table 12). Ms. James primarily used the adopted basal materials to guide her literacy instruction. She began each week by having the students copy vocabulary words and definitions from the board, tasks that were rated as closed. Six of the 21 tasks required students to copy information from the board, all of which were rated as closed. Also, each Friday the students completed worksheets on reading skills. These assignments were decontextualized from authentic reading and writing activities. For example, the directions from one worksheet stated, "Choose the words with the sound /s/ as in person and pencil. Write the word on the line." Six of the 21 tasks were worksheets, all of which were rated as closed. Three of the closed tasks were graphic organizers, which students completed to activate their prior knowledge before reading the basal selection. The final three closed tasks were

students responding in writing to questions from the teacher's manual, which the teacher posted on the board.

Table 12

The Number of Tasks with Each Rating for Ms. James

Task Rating	Number
Closed	18
Moderately Open	2
Open	1
Total	21

Two of the three tasks that were not rated as closed occurred on the same day. This observation was near the end of my three weeks in Ms. James' classroom, and she was beginning an interdisciplinary project, which the grade level had planned together in their common planning time. On this day, the students worked in groups to plan a community. Each group created a community flag, a task rated as moderately open, and they began creating maps to display their communities, an open task. The other moderately open task was students working in groups to locate and write down examples of personification in the text.

Ms. Kim. Ms. Kim implemented nine tasks in the nine observations I conducted in her classroom. Two of the tasks were rated closed, two were rated moderately open, and five were rated open (see Table 13). As I observed in her classroom, Ms. Kim was implementing a communities project during her literacy instruction, blending social studies and literacy curricula. The students were creating their own communities. They

created symbols for their communities and a community map, which they displayed on brochures to share with their parents and their peers across the grade level at the end of the three-week project. To complete this final product, many of the tasks spanned across several days. For example, students had to write descriptions of their community symbols, explaining why the symbols represented their communities. The students took this writing through the writing process, brainstorming ideas, drafting, revising, and editing their descriptions, and publishing their written work on the computer for inclusion on the brochure. This task was rated as open.

Table 13

The Number of Tasks with Each Rating for Ms. Kim

Task Rating	Number
Closed	2
Moderately Open	2
Open	5
Total	9

The two closed tasks occurred on the first day I observed. One was a vocabulary exercise where students completed a graphic organizer describing the definition, the characteristics, examples, and non-examples of the word. The other closed task was a whole-class brainstorming activity where students wrote down potential community symbols on a piece of paper. One of the moderately open tasks was students' brainstorming in their groups what symbols they wanted to use to represent their communities. The other moderately open task was students organizing their presentation

of their group's brochure, deciding who was going to present what. Open tasks included creating the group brochure and students' writing scripts for their presentations.

Ms. Massey. Across the three weeks I observed in Ms. Massey's classroom, I identified 16 tasks. Eight of the tasks were rated closed, four were rated moderately open, and four were rated as open (see Table 14). Throughout my time in Ms. Massey's class, she was rearranging her literacy instruction. She was transitioning to an extended literacy block, moving away from fragmented literacy instruction, where there was appointed time for word study, guided reading, reader's workshop, and writing workshop. In the common grade-level planning time, Ms. Massey, the other teachers, and I discussed the idea of moving to a more flexible literacy block. The literacy block includes mini-lessons on reading and writing skills and strategies, independent reading and writing, guided reading, and word study, but they are implemented flexibly within one large block of time instead of distinct periods of time, which the teachers perceived as constraining.

Table 14

The Number of Tasks with Each Rating for Ms. Massey

Task Rating	Number
Closed	8
Moderately Open	4
Open	4
Total	16

Of the eight closed tasks, four occurred during guided reading. For example, during guided reading students wrote down predictions before reading, answered

comprehension questions in writing after reading, and completed KWL charts. Two of the closed tasks occurred during word study when students copied their words for the week in their notebooks. The two final closed tasks occurred during writing instruction. One task required the students to each sign a letter they had written, and in the other students used a graphic organizer to explore writing topics. Of the four moderately open tasks, three occurred during writing instruction. One task had students write down what they knew about recycling, one required students to brainstorm writing topics, and the other moderately open tasks were students' reflecting on what they had learned that day, a practice Ms. Massey implemented when she switched to the literacy block. This reflecting task was designed to hold students accountable for their work within the literacy block. Two of the four open tasks were writing assignments. One was students' writing an "All About" book based upon the texts they were reading in guided reading, and the other was students' writing an essay on a topic of their choice. In one open task, students worked in groups to finalize brochures for a project they were finishing. In the final open task, students took notes on important information from texts they were reading.

Ms. Anderson. Ms. Anderson implemented 22 tasks across the three weeks I observed in her classroom. Eleven of the tasks were rated closed, 10 were rated moderately open, and one was rated open (see Table 15). Ms. Anderson made it clear that the new grade-level team was an adjustment for her. For the previous two years, she had completed all of her planning with her grade-level peers in a very systematic fashion. All teachers had taught the same content in the same way at the same time. Therefore, this

new team that shared ideas and planned projects together yet maintained a large degree of autonomy was different for Ms. Anderson. In grade-level planning when we spoke of high-level literacy instruction, the emphasis of the school-wide professional development plan, Ms. Anderson noted she was taking "baby steps" in this direction, explaining she was used to a very teacher-directed mode of instruction with her previous grade-level peers.

Table 15

The Number of Tasks with Each Rating for Ms. Anderson

Task Rating	Number
Closed	11
Moderately Open	10
Open	1
Total	22

Six of the 11 closed tasks Ms. Anderson implemented were word study activities. These tasks included copying weekly word study words, copying how they had sorted their words, drawing a picture for each word, and completing a pre-assessment in the form of a spelling test. Three of the closed tasks occurred in guided reading. These activities included locating facts and opinions in a story and writing down questions and predictions while reading. One closed task occurred during writing instruction. In this activity, students used editing marks to correct a letter the teacher had written. The final closed task was during a unit on murals, which accompanied a basal selection on murals. The class walked around the school observing murals on the walls. The students wrote

questions they had as they examined the murals. Ten of the tasks Ms. Anderson implemented were moderately open. These tasks included completing a graphic organizer associated with a story, writing a letter, illustrating a scene from the story, writing a story using word study words, creating a mural, and writing a how-to article. The open task this teacher created was an extension activity students completed when they were finished with their work. The task was to write a letter to a character in the story they were reading.

Overall

Across the 36 observations of these four teachers, I identified 68 tasks. Thirtynine of the tasks were rated as closed, 18 were rated as moderately open, and 11 were rated as open (see Table 16).

Table 16

The Number of Tasks with Each Rating Across All Teachers

Type of Task	Number
Closed	39
Moderately Open	18
Open	11
Total	68

The tasks these teachers implemented varied substantially. Ms. James, who primarily used to the basal to guide her instruction, implemented mostly closed tasks (86%). Ms. Kim, who used an interdisciplinary project to frame her literacy instruction, implemented mostly open tasks (56%). For Ms. Massey, who was transitioning from fragmented

literacy instruction to a more holistic design, half of her tasks were closed, 25% were moderately open, and 25% were open. Finally, Ms. Anderson, who is transitioning from a very systematized to a more responsive form of literacy instruction, had almost equal numbers of closed and moderately open tasks. Table 17 displays the ratings of tasks by teacher.

Table 17

Ratings of Tasks by Teacher

	Closed	Mod Open	Open	Total
Ms. James	18	2	1	21
Ms. Kim	2	2	5	9
Ms. Massey	8	4	4	16
Ms. Anderson	11	10	1	22
Total	39	18	11	68

Based on the results of the chi-square goodness-of-fit test (X2 = 23.48; df = 6; p < .01), I rejected the null hypothesis that there was no difference among teachers in the openness of the tasks they implement. Therefore, there is a statistically significant difference among the teachers in the openness of the tasks they implement. Ms. Kim and Ms. Massey implemented primarily moderately open or open tasks, whereas Ms. James and Ms. Anderson used mostly closed tasks.

Examining the teachers in pairs illustrates this difference. Ms. James and Ms. Anderson, implemented many tasks, 21 and 22 respectively, a majority of which (67%) were closed. Ms. Kim and Ms. Massey, on the other hand, implemented fewer tasks, nine

and 16 respectively, but they designed mostly (60%) moderately open and open tasks. Both these teachers were implementing projects when I observed in their rooms and did not use the basal. Moreover, in these projects, students read and wrote for authentic purposes. Conversely, Ms. James and Ms. Anderson used the basal frequently, and I did not observe students writing extended text at all, much less for authentic purposes.

Research Question 2

The second research question guiding this study was, "What adaptations do teachers make to their literacy instruction?" To answer this question, I identified adaptations through observations and coded how teachers adapted using a previously established coding system. The final coding system developed through the constant comparative analysis included seven codes: (a) modifies the lesson objective, (b) changes means by which objectives are met, (c) invents an example or analogy, (d) inserts a minilesson, (e) suggests a different perspective to students, (f) omits a planned activity or assignment, and (g) changes the planned order of instruction. A team of at least three researchers coded the adaptations, and unanimity among the team was required in coding to promote reliability in the coding system. The research team used the same guidelines to rate the thoughtfulness of each adaptation using a rubric to distinguish among minimally thoughtful, thoughtful, and considerably thoughtful adaptations.

Individual Cases

Ms. James. Ms. James adapted her instruction 24 times while I observed in her classroom. The most common code used to describe how she adapted her instruction was "invents an example or analogy," which included 15 (63%) of her adaptations. For

example, in completing an assignment, a student expressed that she did not know what a banjo was, so the teacher described a banjo and acted like she was playing one with sound effects. The second most common code used for Ms. James' adaptations was "changed the means by which objectives were met," which included six (25%) of her adaptations. While going over vocabulary words, for example, the teacher adapted by having the students act out the words—"show me anxiously" (September 24, 2007)— which she had not planned to do. Also, Ms. James "inserted a mini-lesson" once and "omitted a planned activity or assignment" twice.

Table 18 displays the ratings associated with each adaptation. The table demonstrates that most of Ms. James' adaptations were rated as minimally thoughtful.

Table 18

The Number and Thoughtfulness Ratings of Each Adaptation Code for Ms. James

Adaptation	N	Min	Thought	Consid
1. Modifies the lesson objective	0			
2. Changes means by which objectives are met	6	6		
3. Invents an example or analogy	15	10	5	
4. Inserts a mini-lesson	1	1		
5. Suggests a different perspective to students	0			
6. Omits a planned activity or assignment	2	2		
7. Changes the planned order of instruction	0			
Total	24	19	5	

Nineteen of the 24 adaptations were rated as minimally thoughtful, and the remaining five were rated as thoughtful. Both of the examples discussed above were rated as minimally thoughtful because they required minimal thought. An example of an adaptation rated as thoughtful occurred when students were having trouble grasping how to use context clues. The teacher read a passage from the text to model how she used context clues to figure out the phrase "distress signal." Therefore, the adaptation was directly related to the goals of the lesson and demonstrated the use of professional knowledge. This adaptation was coded as "inventing an example."

Ms. Kim. Across the three weeks I spent in Ms. Kim's classroom, she adapted her instruction 39 times. The most common code used to describe how she adapted her instruction was "invents an example or analogy," which included 13 (33%) of her adaptations. For example, in an activity where students worked in groups to create symbols for their communities, one group was struggling to come up with any symbols. The teacher adapted by sharing examples from other groups. The second most common code used to describe Ms. Kim's adaptation was "changing the means by which objectives were met," which included 12 (31%) of her adaptations. In one activity where students were writing sentences about the symbols they had chosen, the teacher adapted by providing sentence starters for an English language learner (ELL) who was struggling with the activity. Also, she "inserted a mini-lesson" three times; she "suggested a different perspective to students" six times; she "omitted a planned activity" four times; and she "changed the planned order of instruction" once.

Table 19 displays the ratings associated with each adaptation. The table demonstrates that most of Ms. Kim's adaptations were rated as thoughtful and three were rated as considerably thoughtful (only four of the 111 adaptations identified in this study received that rating).

Table 19

The Number and Thoughtfulness Ratings of Each Adaptation Code for Ms. Kim

Adaptation	N	Min	Thought	Consid
1. Modifies the lesson objective	0			
2. Changes means by which objectives are met	12	4	8	
3. Invents an example or analogy	13	1	11	1
4. Inserts a mini-lesson	3		2	1
5. Suggests a different perspective to students	6	2	3	1
6. Omits a planned activity or assignment	4	2	2	
7. Changes the planned order of instruction	1	1		
Total	39	10	26	3

Ten of Ms. Kim's adaptations were rated as minimally thoughtful. One adaptation rated as minimally thoughtful occurred when the teacher was scaffolding a students' writing. The teacher adapted by helping the student find the word "the" in the classroom because he said he did not know how to spell it. This adaptation, which was coded as "suggested a different perspective to students," was rated as minimally thoughtful because it required minimal thought. Twenty-six adaptations were rated as thoughtful, and three were rated as considerably thoughtful. Both of the adaptations mentioned in the previous paragraph

(giving examples to a struggling group and providing sentence starters for an ELL) were rated as thoughtful. An example of an adaptation rated as considerably thoughtful occurred when the teacher adapted by having a discussion with a group about how to best communicate with an ELL. She told the students "Don't yell at him; he is not hard of hearing; he just speaks another language. Don't speak so fast" (October 16, 2007). This adaptation was rated as considerably thoughtful because the teacher was promoting empathy and suggesting strategies to effectively communicate with ELLs; therefore, she had a larger goal beyond literacy learning. This adaptation was coded as "suggests a different perspective to students."

Ms. Massey. In Ms. Massey's classroom, I observed 28 adaptations. The most common code used to describe how she adapted was "inserting a mini-lesson," which included 10 (36%) of her adaptations. For example, when conferencing with a student on his writing, she noticed the student listed several items, using "and" to separate each item. Therefore, Ms. Massey inserted a mini-lesson on using commas when listing three or more items. She explained how to use commas in a list and helped the student change his sentence, replacing the unnecessary "ands" with commas. She "modified the lesson objective" once; she "changed the means by which objectives are met" five times; she "invented an example or analogy" seven times; she "suggested a different perspective to students" twice; and she "omitted a planned activity or assignment" three times.

Table 20 displays the ratings associated with each adaptation. The table demonstrates that most of Ms. Massey's adaptations were rated as thoughtful.

Table 20

The Number and Thoughtfulness Ratings of Each Adaptation Code for Ms. Massey

Adaptation	N	Min	Thought	Consid
1. Modifies the lesson objective	1		1	
2. Changes means by which objectives are met	5	3	2	
3. Invents an example or analogy	7	2	5	
4. Inserts a mini-lesson	10		9	1
5. Suggests a different perspective to students	2		2	
6. Omits a planned activity or assignment	3	2	1	
7. Changes the planned order of instruction	0			
Total	28	7	20	1

Seven of Ms. Massey's adaptations were rated as minimally thoughtful. For example, in one lesson students were struggling to create non-examples of conservation as they completed a graphic organizer on the topic. The teacher stated, "When I think of a non-example of conservation, I think of being wasteful" (November 7, 2007). She then discussed how they turn off the lights when they leave the classroom and this action is not wasteful. This adaptation, which was coded as "invents an example or analogy," was rated as minimally thoughtful because it was confusing how the teacher switched from a non-example of conservation (being wasteful) to an example of conservation (turning out the lights). Twenty of her adaptations were rated as thoughtful, such as the mini-lesson on commas in a list described above. One adaptation was rated as considerably thoughtful. This adaptation occurred in a lesson on essay writing, and a student asked if it is stealing to write an essay that is similar to another essay. The teacher adapted to this unanticipated

question by explaining that it is great to borrow from other writers, but it is not okay to copy writing word-for-word. She explained that in research writing, it is important to cite where you get information. She then described a citation and gave an example. This adaptation was rated as considerably thoughtful because it went beyond answering the students question to describing the larger goal of acknowledging intellectual property. This adaptation was coded as "inserting a mini-lesson."

Ms. Anderson. Across nine observations in Ms. Anderson's classroom, I identified 20 adaptations. She "changed the means by which objectives were met" five times; she "invented an example or an analogy" six times; she "inserted a mini-lesson" three times; she "suggested a different perspective to students" three times; and she "omitted a planned activity or assignment" three times. An example of her omitting a planned an activity occurred during a guided reading lesson. The teacher was trying to include test-type language in the lesson, so she asked students to draw conclusions while they were taking a picture walk. The students were confused by the term draw conclusions: one student referred to drawing illustrations and another referred to visualizing (drawing pictures in your head). At this point, the teacher abandoned this discussion, explaining they would come back to the idea of drawing conclusions later.

Of the 20 adaptations, 13 were rated as minimally thoughtful and seven were rated as thoughtful. The example above on abandoning a discussion on drawing conclusions was rated as minimally thoughtful because the teacher abandoned the topic instead of taking the time to clarify students' misconceptions. An example of an adaptation rated as thoughtful occurred in an activity where students shared murals they

had created. Students hung their murals anywhere they liked in the classroom. Ms. Anderson adapted by asking the students why they placed their murals where they did and then comparing this idea to the real world. She explained that muralists should take care to decide where they paint murals to ensure that they are in places where people can see them. This adaptation, which was coded as "suggests a different perspective to students," was rated as thoughtful because it related the topic of their reading, murals, to a real-world situation. Table 21 displays the ratings associated with each adaptation. The table demonstrates that most of Ms. Anderson's adaptations were rated as minimally thoughtful.

Table 21

The Number and Thoughtfulness Ratings of Each Adaptation Code for Ms. Anderson

Adaptation	N	Min	Thought	Consid
1. Modifies the lesson objective	0			
2. Changes means by which objectives are met	5	5		
3. Invents an example or analogy	6	4	2	
4. Inserts a mini-lesson	3		3	
5. Suggests a different perspective to students	3	1	2	
6. Omits a planned activity or assignment	3	3		
7. Changes the planned order of instruction	0			
Total	20	13	7	

Overall

Across 36 observations of four teachers, I identified and verified 111 adaptations using the criteria outlined in the methods section. These teachers adapted in a variety of ways. The breakdown of number of adaptations for each code is listed in Table 22. The most common types of adaptations were "invents an example or analogy" (37%) and "changes means by which objectives are met" (25%).

Table 22

The Number of Adaptations for Each Code Across All Teachers

Code	Number
1. Modifies the lesson objective	1
2. Changes means by which objectives are met	28
3. Invents an example or analogy	41
4. Inserts a mini-lesson	17
5. Suggests a different perspective to students	11
6. Omits a planned activity or assignment	12
7. Changes the planned order of instruction	1
Total	111

The adaptations also varied in thoughtfulness as captured by the rubric. Adaptations were rated as minimally thoughtful, thoughtful, or considerably thoughtful. The number of adaptations in each category is listed in Table 23. Very few adaptations were rated considerably thoughtful (3%), a majority was rated thoughtful (58%), and many were rated minimally thoughtful (39%).

Table 23

The Number of Adaptations by Thoughtfulness Rating Across All Teachers

Level	Number
Minimally thoughtful	43
Thoughtful	64
Considerably thoughtful	4
Total	111

The four teachers adapted their instruction in different ways. Ms. James adapted her instruction 24 times. Most of her adaptations (63%) were coded as "inventing an example or analogy." A large majority (79%) of her adaptations was rated as minimally thoughtful and none of her adaptations was rated considerably thoughtful. Ms. Kim adapted her instruction 39 times, the most among these four teachers. Most of her adaptations were coded as "changing the means by which objectives were met" or "inventing an example or analogy" (together accounting for 64% of adaptations). Also, a majority of Ms. Kim's adaptations (74%) were rated as thoughtful or as considerably thoughtful. Ms. Massey adapted her instruction 28 times. The most common code for her adaptations was "inserts a mini-lesson" (39%). Like Ms. Kim, most of Ms. Massey's adaptations (75%) were rated as thoughtful or as considerably thoughtful. Ms. Anderson adapted her instruction 20 times. She did not "modify the lesson objective" or "change the planned order of instruction," but her adaptations were fairly evenly distributed across the other codes. A majority of Ms. Anderson's adaptations (65%) was rated minimally

thoughtful, and she did not adapt in a way that was rated considerably thoughtful. Table 24 presented the thoughtfulness ratings of adaptations by teacher.

Table 24

Thoughtfulness Rating of Adaptations by Teacher

	Minimally	Thoughtful	Considerably	Total
Ms. James	19	5	0	24
Ms. Kim	10	26	3	39
Ms. Massey	5	14	1	20
Ms. Anderson	12	5	0	17
Total	46	50	4	100

Based on the results of the chi-square goodness-of-fit test (X2 = 25.71; df = 6; p < .001), I rejected the null hypothesis that there was no difference among teachers in the thoughtfulness of the adaptations they made. Therefore, there is a statistically significant difference among the teachers in the thoughtfulness of the adaptations they made. Ms. Kim and Ms. Massey's adaptations were primarily rated as thoughtful or as considerably thoughtful, whereas Ms. James and Ms. Anderson adapted mainly in minimally thoughtful ways.

The ratings of thoughtfulness varied by adaptation. For example, when teachers "changed the means by which the objectives were met" or "omitted a planned activity," the adaptations were typically (69%) rated as minimally thoughtful. When teachers "invented an example or analogy," "inserted a mini-lesson," or "suggested a different

perspective to students," the adaptations were typically (64%) rated as thoughtful. Table 25 displays the ratings associated with each adaptation.

Table 25

The Number and Thoughtfulness Rating of Each Adaptation Across All Teachers

Adaptation	N	Min	Thought	Consid
1. Modifies the lesson objective	1		1	
2. Changes means by which objectives are met	28	18	10	
3. Invents an example or analogy	41	17	23	1
4. Inserts a mini-lesson	17	1	14	2
5. Suggests a different perspective to students	11	3	7	1
6. Omits a planned activity or assignment	12	9	3	
7. Changes the planned order of instruction	1	1		
Total	111	43	64	4

Research Question 3

The third research question guiding this study was, "What rationales do teachers offer for the adaptations they make?" To answer this question, I interviewed teachers after each observation and asked them why they made each adaptation I identified. These interviews were audiotaped and transcribed. Rationales were analyzed using a previously created coding system to categorize why teachers adapted as they did. The codes include: (A) because the objectives are not met, (B) to challenge or elaborate, (C) to teach a specific strategy or skill, (D) to help students make connections, (E) uses knowledge of student(s) to alter instruction, (G) to check students' understanding, (H) anticipation of

upcoming difficulty, (J) to manage time, and (K) to promote student engagement. A team of at least three researchers coded the rationales, and unanimity among the team was required in coding to promote reliability in the coding system. Also, the research team examined the thoughtfulness of each rationale using a rubric to rate rationales as minimally thoughtful, thoughtful, or considerably thoughtful.

Individual Cases

Ms. James. The most common rationale Ms. James offered for adapting was "because the objectives were not being met," which accounted for 10 (42%) of her rationales. For example, in one lesson the teacher adapted by giving examples of the BL blend, such as blueberry, to help a student pronounce the vocabulary word "blade." She said she adapted in this way because

I noticed Maria was unfamiliar with the word first of all. Then she had difficulty saying the word. . . . Then I noticed that she couldn't even pronounce the blend . . . so I said 'let me stop and talk to about that' because I know that they were going to see that again throughout the story. I knew that they would see consonant blends. (September 17, 2007)

Ms. James adapted her instruction four times "to promote student engagement." For example, one time she adapted by having the students use their hands to demonstrate the vocabulary word "flutter." She said she adapted in this way "just to keep them involved. I notice this group lately, just today it seemed, that they needed some physical involvement" (September 17, 2007). In addition, she adapted twice "to teach a specific skill or strategy"; she adapted four times "to help students make connections"; and she

adapted once "using her knowledge of her students," once "in anticipation of upcoming difficulty," and once "to manage time."

Table 26 displays the ratings associated with each rationale. The table demonstrates that Ms. James' rationales were mostly rated as minimally thoughtful.

Table 26

The Number and Thoughtfulness Rating of Rationales for Ms. James

Rationale	N	Min	Thought	Consid
A. Because the objectives are not met	10	6	4	
B. To challenge or elaborate	0			
C. To teach a specific strategy or skill	2	2		
D. To help students make connections	5	4	1	
E. Uses knowledge of student(s) to alter instruction	1		1	
G. To check students' understanding	0			
H. Anticipation of upcoming difficulty	1		1	
J. To manage time	1	1		
K. To promote student engagement	4	4		
Total	24	17	7	

Seventeen of her rationales were rated as minimally thoughtful, seven as thoughtful, and zero as considerably thoughtful. The rationale above stating that she had the students flutter with their hands to keep them involved was rated as minimally thoughtful because it required minimal thought. However, the instance above where the teacher gave examples of the BL blend because the student did not understand the word "blade" was

rated as thoughtful because it was clearly tied to the objective of the lesson to pre-teach vocabulary words students would encounter in the story.

Ms. Kim. The most common rationale Ms. Kim offered for her adaptations was "because the objectives were not being met," which accounted for 12 (31%) of her rationales. For example, she adapted in one observation by stopping the students' group work on community symbols and gathering them back together as a class. She then referred to a previous lesson on North Carolina state symbols. Ms. Kim offered the following rationale for that adaptation: "I knew they were not getting any of the examples and I figured if we got everybody back together, maybe they would ask each other more ... maybe they would rekindle each other's memory" (October 9, 2007). She changed the assignment because they did not understand the concept of symbols. The second most common rationale she offered for adapting as she did was "using knowledge of students to alter instruction," which accounted for nine (23%) of her rationales. In one instance, Ms. Kim adapted her instruction by encouraging a student to confront his peers in his group to get them to quit arguing. She offered the following rationale for adapting that way:

I said, "What's going on back there?" He said they were fighting, so I said, "Well you need to tell them how you feel about it." Then he shrinks back into himself and says, "Please." He doesn't want to draw attention to himself. . . . But I would want Juan to speak up because he is good . . . I know what's on his ESL testing. Listening is one of his highest traits. . . . He's low in everything else, so if he's advanced in listening, he knew what was going on He just needs to be able to communicate it back to them. I wanted him to feel like he's part of the group—keep on building a camaraderie with the group. (October 17, 2007)

Therefore, Ms. Kim adapted in that way based upon what she knew about this particular student, trying to build on his strengths and to encourage him to become a more active member in class. She also adapted once "to challenge or elaborate"; twice "to teach a specific skill or strategy"; six times "to help students make connections"; five times "to check students' understanding"; three times "in anticipation of upcoming difficulty"; and once "to manage time."

Thirteen of her rationales were rated as minimally thoughtful, 25 as thoughtful, and one as considerably thoughtful. Ms. Kim offered a minimally thoughtful rationale for an adaptation where she modeled an introduction of a presentation. The rationale she offered was: "we went over it the day before and the lesson was in their book. . . . I went through the whole thing with them but I guess they just don't have that knowledge" (October 23, 2007). This rationale was rated as minimally thoughtful because it was fragmented and lacked clarity. The rationale explained in the previous paragraph where the teacher pulled the students back together as a group because they did not understand the concept of symbols is an example of a rationale rated as thoughtful because it was directly related to teaching the concept and demonstrated a change in professional knowledge. The other rationale described above where Ms. Kim encouraged an ESL student to talk to his peers using her knowledge of the student is an example of a considerably thoughtful rationale. This rationale was considerably thoughtful because the teacher illustrated a deep knowledge about the student and used this knowledge to guide her instruction to help the students' learning and affect. Table 27 displays the ratings

associated with each rationale. The table demonstrates that most of Ms. Kim's rationales were rated as thoughtful.

Table 27

The Number and Thoughtfulness Rating of Rationales for Ms. Kim

Rationale	N	Min	Thought	Consid
A. Because the objectives are not met	12	7	5	
B. To challenge or elaborate	1		1	
C. To teach a specific strategy or skill	2	1	1	
D. To help students make connections	6		6	
E. Uses knowledge of student(s) to alter instruction	9	2	6	1
G. To check students' understanding	5	1	4	
H. Anticipation of upcoming difficulty	3	1	2	
J. To manage time	1	1		
K. To promote student engagement	0			
Total	39	13	25	1

Ms. Massey. Ms. Massey offered a variety of rationales for her 28 adaptations. The most common code used to describe why she adapted as she did was "to challenge or elaborate," which accounted for six (21%) of her rationales. For example, in one lesson Ms. Massey adapted by providing an example of conserving energy. She said she adapted in this way because

I was trying to get them to think outside of the simple views of recycling. Recycling is just a piece of it under the umbrella but there are so many other facets of conservation that I hope we'll get to. (November 7, 2007)

Therefore, she adapted her instruction to challenge students to expand their thinking. Ms. Massey adapted four times "to teach a specific skill or strategy." For example, while reading aloud to the teacher in a reading conference, a student skipped an unknown word. The teacher adapted by covering the word and revealing one letter at a time, sounding out each letter. She offered the following rationale for that adaptation:

She would have just skipped that and gone one, which is an okay strategy, but she was completely losing the meaning and the attitude in her story. So I just wanted her to go back, and I say that it is great that you skipped it because you didn't know it, but it is something you can figure out because all I had her do is cover the letters and then she knew the "ei" with the /e/ sound. So she just had to put it together. And then she said, "I'm just going to stretch it out." (November 5, 2007)

Therefore, the teacher adapted to show the student a different way to handle encountering an unknown word. Ms. Massey, also adapted five times "because the objectives were not being met"; six times "to challenge or elaborate"; twice "to help students make connections"; four times "using her knowledge of her students"; once "to check students' understanding"; three times "in anticipation of upcoming difficulty"; twice "to manage time"; and once "to promote student engagement."

Four of her rationales were rated as minimally thoughtful, 23 as thoughtful, and one as considerably thoughtful. Both of the examples in the previous paragraph were rated as thoughtful because they demonstrated use of professional knowledge and were promoting the goals of the lesson. Table 28 displays the ratings associated with each rationale. The table shows that a large majority of Ms. Massey's rationales was rated as thoughtful.

Table 28

The Number and Thoughtfulness Rating of Rationales for Ms. Massey

Rationale	N	Min	Thought	Consid
A. Because the objectives are not met	5	1	4	
B. To challenge or elaborate	6		6	
C. To teach a specific strategy or skill	4	1	2	1
D. To help students make connections	2		2	
E. Uses knowledge of student(s) to alter instruction	4		4	
G. To check students' understanding	1		1	
H. Anticipation of upcoming difficulty	3		3	
J. To manage time	2	2		
K. To promote student engagement	1		1	
Total	28	4	23	1

Ms. Anderson. Ms. Anderson offered a variety of rationales for her 20 adaptations. The most common codes used to describe why she adapted were "to help students make connections" and "using her knowledge of her students," both of which were offered five times. For example, as the teacher was meeting with pairs as they completed a graphic organizer about a basal selection, she adapted by relating the story to the students' own lives and then rewording the graphic organizer based upon this example. She said she adapted in this way because "I was trying to get him to realize how he would feel if people wrote him letters or . . . how he reacts when he gets a letter" (December 3, 2007). This rationale was coded as "to help students make connections" because the teacher was trying to help the student connect to the story. In another

example, a group of students was reading the assigned story by alternating reading each sentence. The teacher adapted by asking the group to read the story aloud together. Her rationale for this adaptation was

I was going to let them pick how they wanted to read, but I know each of them are at different reading levels. If they read sentence by sentence the meaning would get all lost. It would just be "your turn, your turn. Okay, your turn." I knew Alice was a stronger reader. (December 14, 2007)

This rationale was coded as "using knowledge of students to alter instruction" because she used her knowledge of the students' reading levels to change the manner in which the group was reading the assigned text. Moreover, Ms. Anderson adapted three times "because the objectives were not being met"; twice "to challenge or elaborate"; once "to teach a specific skill or strategy"; five times five times; once "to check students' understanding"; twice "in anticipation of upcoming difficulty"; and once "to manage time."

Eleven of her rationales were rated as minimally thoughtful, nine as thoughtful, and zero as considerably thoughtful. Both of the rationales in the examples above were rated as thoughtful because they used professional knowledge to help students achieve the objective of the lesson. In another example, Ms. Anderson adapted by having the students explain a time when they were surprised because they could not articulate an accurate definition of "surprise." She said she adapted in this way

because they weren't understanding what a surprise was. They could tell me times when they were surprised. I hate for a student to tell me something that, yes, it's kind of on the ball, but it wasn't what I was looking for so I re-asked the question, so they'd kind of see "Oh, that's what she's asking." (December 10, 2007)

This rationale, which was coded as "because the objectives were not met," was rated as minimally thoughtful because it was fragmented and lacked clarity. Table 29 displays the ratings associated with each rationale. The table demonstrates that Ms. Anderson's rationales were fairly evenly divided between minimally thoughtful and thoughtful.

Table 29

The Number and Thoughtfulness Rating of Rationales for Ms. Anderson

Rationale	N	Min	Thought	Consid
A. Because the objectives are not met	3	3		
B. To challenge or elaborate	2	1	1	
C. To teach a specific strategy or skill	1		1	
D. To help students make connections	5	2	3	
E. Uses knowledge of student(s) to alter instruction.	5	3	2	
G. To check students' understanding	1	1		
H. Anticipation of upcoming difficulty	2		2	
J. To manage time	1	1		
K. To promote student engagement	0			
Total	20	11	9	

Overall

Teachers provided a rationale for each adaptation; therefore, 111 rationales were catalogued. The breakdown of rationales across all four teachers for each code is listed in Table 30. The most common rationales for adapting are "because the objectives are not met" (27%), "using knowledge of students to alter instruction" (17%), and "to help

students make connections" (16%). The distribution of rationales across the remaining codes is fairly even, ranging from five to nine.

Table 30

The Number of Rationales for Each Code Across All Teachers

Rationale	Number
A. Because the objectives are not met	30
B. To challenge or elaborate	9
C. To teach a specific strategy or skill	9
D. To help students make connections	18
E. Uses knowledge of student(s) to alter instruction	19
G. To check students' understanding	7
H. Anticipation of upcoming difficulty	9
J. To manage time	5
K. To promote student engagement	5
Total	111

The rationales also varied in thoughtfulness as captured by the rubric. Rationales were rated as minimally thoughtful, as thoughtful, or as considerably thoughtful. The number of rationales in each category is listed in Table 31. Very few rationales were rated as considerably thoughtful (2%), a majority was rated as thoughtful (58%), and many were rated as minimally thoughtful (40%).

These four teachers adapted their instruction for different reasons. Ms. James adapted her instruction 24 times and her most common rationale was "because the objectives were not being met" (42%).

Table 31

The Number of Rationales by Thoughtfulness Rating

Level	Number
Minimally thoughtful	45
Thoughtful	64
Considerably thoughtful	2
Total	111

The majority (71%) of her rationales was rated as minimally thoughtful, and none of her adaptations was rated as considerably thoughtful. Ms. Kim adapted her instruction 39 times, and the most common rationales were "because the objectives were not being met" (31%) and "using her knowledge of her students" (23%). The majority of Ms. Kim's rationales (67%) was rated as thoughtful or as considerably thoughtful. Ms. Massey adapted her instruction 28 times. Her rationales for adapting were fairly evenly distributed, with the most common being "to challenge or elaborate" (21%). Like Ms. Kim, most of Ms. Massey's rationales (86%) were rated as thoughtful or as considerably thoughtful. Ms. Anderson adapted her instruction 20 times, and the most common rationales she offered were "to help students make connections" (25%) and "using her knowledge of students" (25%), which accounted for half of her adaptations. A majority of Ms. Anderson's rationales (55%) was rated as minimally thoughtful, and she did not provide a rationale that was rated as considerably thoughtful. Table 32 displays the thoughtfulness ratings of rationales by teacher.

Table 32

Thoughtfulness Ratings of Rationales by Teacher

	Minimally	Thoughtful	Considerably	Total
Ms. James	17	7	0	24
Ms. Kim	13	25	1	39
Ms. Massey	3	16	1	20
Ms. Anderson	9	8	0	17
Total	42	56	2	100

Based on the results of the chi-square goodness-of-fit test (X2 = 17.04; df = 6; p < .01), I rejected the null hypothesis that there was no difference among teachers in the thoughtfulness of the rationales they offered for the adaptations they made. Therefore, there is a statistically significant difference among the teachers in the thoughtfulness of the rationales they offered. Ms. Kim and Ms. Massey offered primarily rationales rated as thoughtful or considerably thoughtful, whereas Ms. James and Ms. Anderson offered mostly minimally thoughtful rationales.

The ratings of thoughtfulness varied by rationale. For example, when teachers adapted "to manage time" or "to promote student engagement," the rationales were typically (90%) rated as minimally thoughtful. When teachers adapted "to challenge or elaborate," "to help students make connections," "using knowledge of students," or "in the anticipation of upcoming difficulty," their rationales were typically (75%) rated as thoughtful. Table 33 displays the ratings associated with each adaptation.

Table 33

The Number and Thoughtfulness Rating of Rationales Across All Teachers

Rationale	N	Min	Thought	Consid
A. Because the objectives are not met	30	17	13	
B. To challenge or elaborate	9	1	8	
C. To teach a specific strategy or skill	9	4	4	1
D. To help students make connections	18	6	12	
E. Uses knowledge of student(s) to alter instruction	19	5	13	1
G. To check students' understanding	7	2	5	
H. Anticipation of upcoming difficulty	9	1	8	
J. To manage time	5	5		
K. To promote student engagement	5	4	1	
Total	111	45	64	2

Research Question 4

The fourth research question guiding this study was, "What are the relationships among the openness of the literacy tasks teachers assign, the adaptations they make, and the rationales they provide for adapting?" To answer this question, I analyzed the findings from research questions 1, 2, and 3 together. Specifically, I examined relationships between tasks and adaptations, between tasks and rationales, and between adaptations and rationales. In this section, I first examine individual cases by (a) exploring the data collected on tasks, adaptations, and rationales and (b) describing specific examples of tasks, adaptations, and rationales I observed. I then examine the data across the four cases.

Individual Cases

Ms. James. Ms. James has the most experience of all the participants, currently in her sixteenth year. Across my nine observations of Ms. James, she adapted her instruction 24 times and implemented 21 literacy tasks. All of the adaptations occurred within 13 of those tasks; therefore, I observed eight tasks that did not include any adaptations. Of those 13 tasks, 12 were rated as closed and one was rated as open (see Table 34). Of her 24 adaptations, 19 were rated as minimally thoughtful and five were rated as thoughtful. Seventeen of the rationales for Ms. James' 24 adaptations were rated as minimally thoughtful, and seven were rated as thoughtful (see Table 35).

Table 34

Ms. James' Tasks Associated with Adaptations

Task Rating	#
Closed	12
Moderately Open	0
Open	1
Total	13

Table 35

Ms. James' Adaptations and Rationales with Their Thoughtfulness Ratings

	Adaptations	Rationales
Minimal	19	17
Thoughtful	5	7
Considerable	0	0
Total	24	24

Therefore, the tasks Ms. James' assigned tended to be closed (92%), and her adaptations and rationales tended to be minimally thoughtful (79% and 71%, respectively).

Five of the 13 tasks in which Ms. James adapted were vocabulary assignments; four tasks were worksheets; two tasks were students responding to questions after reading; one was a graphic organizer activating their background knowledge; and one was a cross-disciplinary project. In the project, which was the one task rated as open, the students worked in groups to design a community, and they were creating a map of the community. In this open task, the teacher adapted twice. Once she provided an example, asking students "Would you have the school close to the houses or far away?" (October 2, 2007). She adapted in this way to encourage them to be strategic in their planning:

[I was] trying to teach them some strategy and actually thinking because this was really our first day of really thinking and looking at where we want things placed. We have done the circle map. We have done the Venn diagram. We talked about what's in a community. We talked about all those things that are important and necessary but we have not actually talked about placement. We talked about maps and what symbols we're going to have but we have not talked about placement; where things should be positioned and use some good sense. Just use a little common sense. Today is the first day that they've really attempted to think through some good planning and talk with each other about where everything should go. (October 2, 2007)

This adaptation was rated as thoughtful because it was tied to the objective of the activity.

The rationale was rated as minimally thoughtful because it required minimal thought and was fragmented—it even suggested the teacher had not adequately planned the activity.

Five of Ms. James' adaptations occurred during a single vocabulary lesson that required students to copy vocabulary words from the board, a closed task. In discussing these vocabulary words, she adapted by providing examples five times. For instance, a

student said that she did not understand the word "blade," a vocabulary word that was just introduced. So the teacher used it in a sentence as in "blade of grass." This adaptation required minimal thought because the student did not understand the word, yet all the teacher did was use it in a sentence. It was coded as "inventing an example or analogy." Ms. James' rationale for adapting in this was that she knew in the story that "blade" was used as blade of grass, rather than as a blade on a knife, so she wanted to get the students thinking about the word as it appeared in the story they were about to read. This rationale was coded as "because the objectives were not met" because the students did not understand a vocabulary word they had just previewed. This rationale was rated as thoughtful because her thinking was directly related to the objective of the lesson: comprehending the story.

Ms. Kim. Ms. Kim is in her eighth year teaching and is nationally board certified. In nine observations, she adapted her instruction 39 times and implemented nine tasks. All the adaptations occurred within eight of those tasks; therefore, one task did not include any adaptations. Of those eight tasks, two were rated as closed, two were rated as moderately open, and four were rated as open (see Table 36). Of her 39 adaptations, 10 were rated as minimally thoughtful, 26 as thoughtful, and three as considerably thoughtful. Thirteen of her rationales for her adaptations were rated as minimally thoughtful, 25 were rated as thoughtful, and one was rated as considerably thoughtful (see Table 37). Therefore, Ms. Kim's instruction tended to be open (50%), and the thoughtfulness of her adaptations and rationales tended to be rated as thoughtful (67% and 64%, respectively).

Table 36

Ms. Kim's Tasks Associated with Adaptations

Task Rating	#
Closed	2
Moderately Open	2
Open	4
Total	8

Table 37

Ms. Kim's Adaptations and Rationales with Their Thoughtfulness Ratings

	Adaptations	Rationales
Minimal	10	13
Thoughtful	26	25
Considerable	3	1
Total	39	39

Throughout my observations of Ms. Kim, her literacy instruction revolved around an interdisciplinary project. In this long-term assignment, the students created a community. The final product was a brochure advertising the community. At the conclusion of the project, the brochures were presented to the rest of the grade-level. All third-grade classrooms completed a similar project, and parents were invited to the presentation. Their brochures had to include a map of the community, community symbols, and paragraphs explaining the symbols. Within this project, students wrote about their symbols and wrote scripts for the presentation. Both these pieces were taken

through the entire writing process for each student. Therefore, both of these tasks spanned across several days. These tasks were rated as open.

In a lesson where students were beginning to create their brochures, Ms. Kim was modeling what a brochure would look like with a large piece of poster board. She had planned to model the tri-fold, but she adapted by modeling not only the tri-fold but also where the name of the city might go, where a picture might go, and where they might choose to put the map. She did this by actually writing on the poster board. This adaptation was coded as "inserting a mini-lesson" and was rated as considerably thoughtful because she showed exemplary use of professional knowledge by anticipating students' needs. In the post-lesson interview, the teacher explained, "It was because...I had a lot of blank stares looking at me, which I know there are lots of times if I start them and I think they understand, then they go back and they still don't have it" (October 16, 2007). Therefore, this rationale was coded as "anticipation of upcoming difficulty" and was rated as thoughtful because it was directly related to the objective of the lesson and demonstrated the use of professional knowledge.

Ms. Massey. Ms. Massey is a fourth year teacher who is currently working towards a master's degree and national board certification. Across the three weeks I observed Ms. Massey, she adapted her instruction 28 times and implemented 16 tasks. However, only 20 adaptations occurred within eight of those tasks. Therefore, eight adaptations were not associated with a literacy task as it is defined in this study (an assignment in which students write), and she implemented eight tasks during which she did not adapt. Of the eight tasks during which she did adapt, two were rated as closed,

two were rated as moderately open, and four were rated as open (see Table 38). Of her 20 adaptations, five were rated as minimally thoughtful, 14 as thoughtful, and one as considerably thoughtful. Three of the rationales for her adaptations were rated as minimally thoughtful, 16 were rated as thoughtful, and one was rated as considerably thoughtful (see Table 39). Therefore, Ms. Massey's instruction was often open (50%), and the thoughtfulness of her adaptations and rationales within those tasks tended to be rated as thoughtful (70% and 80%, respectively).

Table 38

Ms. Massey's Tasks Associated with Adaptations

Task Rating	#
Closed	2
Moderately Open	2
Open	4
Total	8

Table 39

Ms. Massey's Adaptations and Rationales with Their Thoughtfulness Ratings

	Adaptations	Rationales
Minimal	5	3
Thoughtful	14	16
Considerable	1	1
Total	20	20

Ms. Massey's classroom instruction embodied what is frequently called a balanced approach to literacy instruction. She taught guided reading and word study to students in small groups that were grouped by reading level. In this instruction, she would provide explicit instruction in comprehension strategies, phonics, and decoding. She also allowed for authentic reading, providing daily sustained silent reading, and for authentic writing in writer's workshop. Throughout my observations and my involvement with the grade level's team planning, Ms. Massey was embracing the school's movement toward promoting high-level literacy instruction. Upon my suggestion and a discussion in a grade-level meeting, she reorganized her classroom to include a "literacy block." Rather than having a distinct time set for word study and for guided reading and for writer's workshop and for sustained silent reading, she created a literacy block organized around a project. During this two and a half hour block, the students read or wrote to work on the project, and the teacher conferred with individual students about their reading and writing and pulled small groups for instruction.

The project she arranged was a conservation project. In groups students decided whether they wanted to (a) write a letter to another grade level, asking for their support in recycling paper; (b) write a letter to the principal, requesting more recycling bins; or (c) write essays about the benefits of recycling to be posted around the school. In conferring with a student as he read, Ms. Massey adapted her instruction by modeling how to make an inference and explained how she did it: "I used my schema and the text to read between the lines" (November 16, 2007). This adaptation was coded as "inserting a minilesson," and it was rated as thoughtful because it demonstrated use of professional

knowledge and was related to her goal for the lesson. The teacher provided the following rationale:

That's what I like about this literacy block and throwing in reader's workshop. They all know, and I know this from their first and second grade curriculum, they all know schema. They all know inferencing. They all know mental images. They all make connections, but I think it's using it fluently and being aware that they're using it. So while I know that I have a base for what those strategies are and how to use them, I want them to see you're using them daily and multiple strategies at once. So I don't set out with a specific comprehension strategy in mind. As I see the text lending itself well to the strategy, I pull it out and say "this is what you're doing as you're thinking." And I hope that will transfer as we start moving to test passages and to more difficult text. (November 16, 2007)

This rationale was codes as "teaching a specific strategy or skill" because she was teaching students how to be more aware of their strategy use. It was rated as considerably thoughtful because this rationale exhibits exemplary understanding of comprehension and comprehension instruction and demonstrates the larger goal of metacognition.

Ms. Anderson. Ms. Anderson had the least experience of all participants, currently in her third year teaching. Across the nine observations in Ms. Anderson's classroom, she adapted her instruction 20 times and implemented 22 tasks. However, only 17 adaptations occurred within nine of those tasks. Therefore, three adaptations were not associated with a literacy task as it is defined in this study (an assignment in which students write), and she implemented 13 tasks during which she did not adapt. Of the nine tasks where she did adapt, four were rated as closed and five were rated as moderately open (see Table 40). Of her 17 adaptations, 12 were rated as minimally thoughtful and five as thoughtful. Nine of the rationales for her adaptations were rated as minimally thoughtful and eight were rated as thoughtful (see Table 41).

Table 40

Ms. Anderson's Tasks Associated with Adaptations

Task Rating	#
Closed	4
Moderately Open	5
Open	0
Total	9

Table 41

Ms. Anderson's Adaptations and Rationales with Their Thoughtfulness Ratings

	Adaptations	Rationales
Minimal	12	9
Thoughtful	5	8
Considerable	0	0
Total	17	17

Therefore, Ms. Anderson's instruction was fairly evenly split between closed (44%) and moderately open (56%) tasks, and the thoughtfulness of her adaptations within those tasks tended to be rated as minimally thoughtful (71%) and the rationales within those tasks were split between minimally thoughtful (53%) and thoughtful (47%).

Ms. Anderson is the only teacher on this grade-level team who taught third grade previously. For the last two years, her first two years teaching, she taught on a grade-level team led by two veteran teachers. The team completed all lesson plans together and all teachers were expected to teach the same lesson at the same time. The emphasis was on

test preparation including extensive drill and mnemonic techniques to memorize information. Ms. Anderson is transitioning from this situation toward the school's movement toward high-level literacy instruction. She expressed in grade-level meetings that this change was tough for her and that she was taking "baby steps." Therefore, she is embracing this movement, but in minor ways.

In an activity accompanying a basal story on murals, the students created their own murals. The students had posted their murals in the classroom, and the class walked from mural to mural, asking the "muralist" questions about his or her work. After visiting half of the murals, Ms. Anderson adapted her instruction by concluding the activity before all murals were visited. This adaptation was coded as "omitting a planned activity," and was rated as minimally thoughtful because it required minimal thought. The teacher offered the following reason for adapting: "Part of it was time and part of it was they were getting very restless. And when they get restless, I might as well be talking to myself at that point" (December 19, 2007). This rationale was coded as "uses knowledge of students to alter instruction" because it was based upon her knowledge of her students. It was rated as minimally thoughtful because it did not address instruction in a significant way.

Overall

Tasks and adaptations. The teachers in this study implemented 68 tasks and adapted their instruction 111 times across my 47 hours of observation. Of those adaptations, 99 occurred within 38 literacy tasks as it was defined in this study (an assignment in which students write). Therefore, 12 adaptations were not related to a

literacy task, and I observed 30 tasks where teachers did not adapt their instruction. Of these 30 tasks, 19 were rated as closed, 9 were rated as moderately open, and 2 were rated as open. In this study, I analyzed the openness of the task using a rubric. Tasks were rated as being closed, moderately open, or open. Adaptations were analyzed by categorizing how teachers adapted using a coding system. Also, adaptations were rated as being minimally thoughtful, thoughtful, or considerably thoughtful.

Teachers adapted 36 times in 20 closed tasks (1.8 adaptations per closed task). Teachers made 24 adaptations in nine moderately open tasks (2.7 adaptations per moderately open task). Teachers adapted 39 times in nine open tasks (4.3 adaptations per open task). These data, then, suggest that teachers adapt their instruction more when using open tasks.

The teachers in this study adapted their instruction in more thoughtful ways when using more open literacy tasks. Of the 36 adaptations that occurred during closed tasks, 26 were rated as minimally thoughtful and the other 10 were rated as thoughtful. Of the 24 adaptations that occurred during moderately open tasks, 10 were rated as minimally thoughtful and 14 were rated as thoughtful. Of the 39 adaptations that occurred during open tasks, 10 were rated as minimally thoughtful, 25 were rated as thoughtful, and four were rated as considerably thoughtful. Therefore, when using closed instruction 72% of the adaptations were minimally thoughtful. When using moderately open instruction, 42% of the adaptations were minimally thoughtful. When using open instruction, 26% of adaptations were minimally thoughtful, while 64% were thoughtful and 10% were

considerably thoughtful. Table 42 displays these data. All of the adaptations rated considerably thoughtful occurred during open instruction.

Table 42

The Number of Adaptations According to Their Thoughtfulness Ratings and the Openness of the Task in Which They Occurred (Percentages are Within That Type of Task)

	Minimal	Thoughtful	Considerable
Closed	26 (72%)	10 (28%)	0 (0%)
Mod Open	10 (42%)	14 (58%)	0 (0%)
Open	10 (26%)	25 (64%)	4 (10%)

Based on the results of the chi-square goodness-of-fit test (X2 = 20.53; df = 4; p < .001), I rejected the null hypothesis that there was no difference in the thoughtfulness of the adaptations when using closed, moderately open, and open tasks. Therefore, there is a statistically significant difference in the thoughtfulness of teachers' adaptations when using closed, moderately open, and open tasks. Teachers were more thoughtful when using open tasks and less thoughtful when using closed tasks.

Although the thoughtfulness of adaptations varied with the openness of the task, there was little difference in how teachers adapted when implementing closed, moderately open, or open tasks. For example, teachers "changed the means by which the objectives were met" nine times when using closed tasks, eight times when using moderately open tasks, and 10 times when using open tasks. Likewise, teachers "omitted a planned activity" four times when using closed tasks, once when implementing a moderately open task, and five times when implementing an open task. The one type of

adaptation that appeared to be linked to the openness of the task was when teachers "invented an example or analogy." Teachers adapted in this way 20 times when using closed tasks, seven times when using moderately open instruction, and nine times when using open tasks. Moreover, teachers adapted 36 times when using closed instruction, and 20 of those adaptations were "inventing an example or analogy." Therefore, "inventing an example or analogy" appears to be more common during closed tasks. How teachers adapt when using moderately open tasks and open tasks is fairly evenly distributed (see Table 43).

Table 43

Adaptation Codes and Openness of the Task in Which They Occurred Across All Teachers

		Mod		
	Closed	Open	Open	Total
1. Modifies lesson objective	0	0	1	1
2. Changes means by which objectives are met	9	8	10	27
3. Invents an example or analogy	20	7	9	36
4. Inserts a mini-lesson	2	4	7	13
5. Suggests a different perspective to students	1	4	6	11
6. Omits planned activity or assignment	4	1	5	10
7. Changes planned order of instruction	0	0	1	1
Total	36	24	39	99

Tasks and rationales. The teachers who participated in this study adapted their instruction 111 times. Ninety-nine of those adaptations occurred within a literacy task as it was defined in this study (an assignment in which students write). Therefore, the

teachers provided 99 rationales for adapting as they did within those tasks. In this study, tasks were analyzed using a rubric to rate tasks as closed, moderately open, or open. Rationales were analyzed by categorizing why teachers adapted using a coding system. Also, rationales were analyzed using a rubric to rate rationales as minimally thoughtful, thoughtful, or considerably thoughtful.

The teachers in this study provided more thoughtful rationales when using more open literacy tasks. Of the 36 rationales for adaptations that occurred during closed tasks, 23 were rated as minimally thoughtful and the other 13 were rated as thoughtful. Of the 24 rationales for adaptations that occurred during moderately open tasks, seven were rated as minimally thoughtful and 17 were rated as thoughtful. Of the 39 rationales for adaptations that occurred during open tasks, 12 were rated as minimally thoughtful, 25 were rated as thoughtful, and two were rated as considerably thoughtful. Therefore, when using closed instruction, 64% of the rationales were minimally thoughtful. When using moderately open instruction, 29% of the rationales were minimally thoughtful. When using open instruction, 31% of rationales were minimally thoughtful, while 64% were thoughtful and 5% were considerably thoughtful (see Table 44). All of the rationales rated as considerably thoughtful occurred during open instruction.

Based on the results of the chi-square goodness-of-fit test (X2 = 13.19; df = 4; p < .05), I rejected the null hypothesis that there was no difference in the thoughtfulness of the rationales teachers offered when using closed, moderately open, and open tasks.

Therefore, there is a statistically significant difference in the thoughtfulness of teachers'

rationales when using closed, moderately open, and open tasks. Teachers' rationales were more thoughtful when using open tasks and less thoughtful when using closed tasks.

Table 44

The Number of Rationales According to Their Thoughtfulness Ratings and the Openness of the Task in Which the Adaptation Occurred (Percentages are Within That Type of Task)

	Minimal	Thoughtful	Considerable
Closed	23 (64%)	13 (36%)	0 (0%)
Mod Open	7 (29%)	17 (71%)	0 (0%)
Open	12 (31%)	25 (64%)	2 (5%)

Although the thoughtfulness of teachers' rationales varied with the openness of the tasks, the types of rationales teachers offered did not differ greatly across closed, moderately open, and open tasks. For example, teachers adapted "to help students make connections" six times when using closed instruction, five times when using moderately open instruction, and five times when using open instruction. Similarly, teachers adapted "in anticipation of upcoming difficulty" twice when using closed tasks, three times when using moderately open tasks, and three times when using open tasks. The one rationale that did appear to be tied to the openness of the instruction was "because the objective was not met." Teachers adapted for this reason 15 times when using closed instruction, seven times when using moderately open tasks, and five times when using open instruction. Teachers adapted 36 times when implementing closed tasks, and 15 of those adaptations were made "because the objectives were not met." Therefore, it appears that

teachers adapt "because the objectives were not met" more often during closed tasks (see Table 45).

Table 45

Rationale Codes and Openness of Tasks

	~	Mod		
	Closed	Open	Open	Total
A. Because the objectives are not met	15	7	5	27
B. To challenge or elaborate	0	3	4	7
C. To teach a specific skill or strategy	3	0	5	8
D. To help students to make a connection	6	5	5	16
E. Uses knowledge of students to alter instruction	3	5	9	17
G. To check students' understanding	1	1	5	7
H. In anticipation of upcoming difficulty	2	3	3	8
J. To manage time	2	0	2	4
K. To promote student engagement	4	0	1	5
Total	36	24	39	99

Adaptations and rationales. Adaptations and rationales were both analyzed using a coding system to categorize the type and using a rubric to rate the thoughtfulness. The teachers in this study adapted their instruction 111 times and accordingly offered 111 rationales for adapting. Forty-three of the adaptations and 45 of the rationales were rated as minimally thoughtful; 64 adaptations and 64 rationales were rated as thoughtful; 4 adaptations and 2 rationales were rated as considerably thoughtful. Holistically, then, adaptations and rationales appeared to require similar levels of thoughtfulness.

When the types of (i.e., codes for) adaptations and their associated rationales are examined together, very few patterns emerged. Of the 111 adaptation and rationale pairs, 36 different combinations of codes occurred (therefore, 27 pairs never occurred). The most common combination was the teacher adapted by "inventing an example or analogy" because the "objectives were not met." This combination occurred 14 times (13%). The second most common adaptation and rationale pair was the teacher adapted by "inventing an example or analogy" to "help students make a connection." This combination occurred 13 times (12%). The third most common pair had only eight occurrences and the fourth only five. Therefore, teachers adapt in a variety of ways for a variety of reasons.

The thoughtfulness associated with adaptation and rationale pairs, having many fewer possible combinations (nine rather than 63), produced more consistent results. Teachers' adaptations were rated as minimally thoughtful 49 times. Thirty-three of the rationales associated with these adaptations were also rated as minimally thoughtful. The other 16 rationales for minimally thoughtful adaptations were rated as thoughtful. When teachers' adaptations were rated as thoughtful in thoughtfulness (n=58), 44 of the rationales were also rated thoughtful; twelve were rated minimally thoughtful, and two were rated considerably thoughtful. Only four times were teachers' adaptations rated as considerably thoughtful. In each of these occurrences, the rationale for the adaptation was rated thoughtful. Therefore, 69% of the time, there was congruence between the thoughtfulness rating of the adaptation and of the rationale (i.e., both were rated as minimally thoughtful or both were rated as thoughtful). Interestingly, there were no

considerably thoughtful adaptations associated with considerably thoughtful rationales. Fourteen percent of the adaptations were rated more thoughtful than the associated rationale, and 16% of the adaptations were rated less thoughtful than the rationale for adapting. However, there were no instances where a minimally thoughtful rated adaptation was paired with a considerably thoughtful rated rationale or vice versa. It seems, then, that the thoughtfulness associated with an adaptation is consistent in terms of what teachers do and why they do it.

Summary of Results

This research examined the openness of the literacy tasks teachers implemented, the adaptations they made to their instruction, the rationales they offered for adapting as they did, and the relationships among these phenomena. Within the context of a school-wide movement toward high-level literacy instruction, these teachers implemented a variety of closed, moderately open, and open literacy tasks. A chi-square goodness-of-fit test found a statistically significant difference in the openness of the tasks that the teachers implemented. To illustrate the differences, consider that Ms. Kim and Ms. Massey implemented nine open tasks and 10 closed tasks, while Ms. James and Ms. Anderson only used two open tasks and 29 closed tasks.

This research also demonstrated that the number and thoughtfulness of teachers' adaptations are related to the openness of the task. Teachers adapted their instruction more frequently when implementing more open tasks, averaging 1.8 adaptations per closed task, 2.7 adaptations per moderately open task, and 4.3 adaptations per open task. Also, teachers' adaptations were more thoughtful when implementing more open

instruction. When using closed tasks, teachers' adaptations were primarily (72%) rated as minimally thoughtful. When using moderately open tasks, teachers' adaptations were fairly evenly split between minimally thoughtful (42%) and thoughtful (58%). When teachers' implemented open tasks, their adaptations were primarily rated as thoughtful (64%), and an additional 10% were rated as considerably thoughtful. Moreover, all four of the considerably thoughtful adaptations identified in this study occurred when teachers were implementing open tasks. A chi-square goodness-of-fit test found this difference in the thoughtfulness of the adaptation across closed, moderately open, and open tasks to be statistically significant.

Similarly, the rationales teachers offered for adapting were related to the openness of the task. When using closed tasks, teachers' rationales for adapting were primarily (64%) rated as minimally thoughtful. When using moderately open tasks, teachers' rationales for adapting were chiefly rated as thoughtful (71%). When teachers implemented open tasks, their rationales for adapting were primarily rated as thoughtful (64%), and an additional 5% were rated as considerably thoughtful. Moreover, both of the considerably thoughtful rationales identified in this study occurred when teachers were implementing open tasks. A statistically significant difference in the thoughtfulness of the rationales teachers offered for adapting across closed, moderately open, and open tasks was found using a chi-square goodness-of-fit test.

Finally, this research indicates that the thoughtfulness involved in how teachers adapt and why they adapt is consistent. That is, when examining the thoughtfulness of adaptations in light of the thoughtfulness of the related rationale for adapting, a majority

of the time (69%) the adaptation and rationale received the same rating. Moreover, never did a minimally thoughtful adaptation occur with a considerably thoughtful rationale or vice versa.

CHAPTER IV

DISCUSSION

Summary of the Study

Open tasks are associated with enhanced student motivation and learning. Researchers indicate, however, that teachers must be adaptive when using open instruction because the direction of the lesson cannot be entirely preplanned (Duffy, 1991; Maloch, 2004; Randi & Corno, 2000; Sawyer, 2004). Nonetheless, little research has studied the relationship between the openness of the tasks teachers implement and the adaptations they make. Adaptive teaching is a characteristic of effective teachers, and many researchers suggest that teacher education should strive to develop adaptive teachers. Yet, there is little research examining the nature of teachers' adaptations or the reasons they adapt. In this study, I examined the openness of the tasks teachers implemented, the adaptations they made, the rationales they offered for adapting, and the relationships among these phenomena.

Using collective case studies, I conducted observations and interviews to study four teachers' literacy instruction in a school that was moving toward high-level literacy instruction. Observations allowed me to identify tasks and adaptations. In interviews I asked the teachers why they adapted to obtain their rationale for adapting. The openness of the task was rated using a rubric. Adaptations were coded to categorize how teachers

adapted. Rationales were coded to categorize why teachers adapted. The thoughtfulness of both adaptations and rationales were rated using a rubric.

Through this research, I found that while the teachers varied in the openness of the tasks they implemented and in the thoughtfulness of the adaptations they made, the thoughtfulness of adaptations and rationales were tied to the openness of tasks. Teachers adapted more when using open tasks, and adaptations as well as rationales were more thoughtful when teachers used more open instruction. Ms. James implemented primarily closed tasks, and her adaptations and rationales tended to be minimally thoughtful. Ms. Kim implemented primarily open tasks. She adapted more than any other teacher, and her adaptations and rationales tended to be rated as thoughtful. Ms. Massey implemented a variety of closed, moderately open, and open tasks, but a majority of her adaptations occurred when she was implementing open tasks. Her adaptations and rationales tended to be thoughtful. Finally, Ms. Anderson implemented an even number of closed and moderately open tasks, and a majority of her adaptations and rationales were minimally thoughtful.

Examining these four cases as pairs illuminates this relationship. For example, Ms. Kim and Ms. Massey implemented more open instruction and demonstrated the ability to adapt their instruction in thoughtful ways. Most of their tasks were moderately open or open. Also, a large majority of their adaptations and rationales were rated as thoughtful, and they were the only teachers in this study who had adaptations and rationales rated as considerably thoughtful. The other two teachers, Ms. James and Ms.

Anderson, taught differently. They implemented mainly closed tasks, and most of their adaptations and rationales were rated as minimally thoughtful.

This study has implications for theory, for practice, for policy, and for future research. In this chapter, I discuss these implications in detail. First, I examine the major findings of this research in light of the theories that informed the study. I then examine the implications of this research for practice, discussing what the findings suggest for teacher education. Next, I examine the implications of this study for policy, exploring the findings of this research in regard to current educational policy. Finally, I discuss the logical next steps in this research agenda based upon the findings of this study.

Implications for Theory

This research confirms previous theories that suggest that teachers must be adaptive to navigate the complex environment of the classroom (Anders et al., 2000; Bransford, Derry et al., 2005). The teachers in this study adapted in a variety of ways (e.g., providing examples, changing the means of instruction, changing the order of instruction, abandoning tasks altogether, etc.) and for a variety of reasons (e.g., because students were lost, because of time, to help students make connections, to challenge students, based upon teachers' knowledge of students, etc.). Therefore, to be effective in the unpredictable context of the classroom, teachers must be thoughtful about their instruction, making adjustments as needed.

Therefore, this research also supports theories about teaching that propose teachers are metacognitive (Zohar, 1999) and self-regulating (Randi, 2004). From these perspectives, teachers are constantly monitoring their instruction and taking action when

the situation calls for it (Duffy et al., in press). The following examples from teachers' rationales demonstrated their metacognition. Ms. Massey explained her thinking during one adaptation: "I thought, 'Okay, they don't get it. Let me back up. I didn't do a good enough job modeling for them what I want." Ms. Kim explained her thinking during instruction: "My mind goes a mile a minute when they're right in front of me...your mind just dashes. Boom, I'm going to do this." However, this research demonstrated that some teachers were more thoughtful in how and why they adapted than others.

One of the major findings of this study was that there were statistically significant differences among teachers in the thoughtfulness of their adaptations and rationales, with two teachers demonstrating more thoughtfulness than the other two. This finding raises the question, "Why are some teachers more thoughtful than others?" To consider this question, it is important to take into account the other major finding of this study: that the thoughtfulness of teachers' adaptations was related to the openness of the task. When teachers implemented open tasks, their adaptations and rationales were more thoughtful than when they implemented closed tasks.

Previous theory on tasks addresses this relationship between teacher's thoughtful adaptations and the openness of the task. For example, Doyle (1983) suggests that using open instruction leads to more ambiguity in the classroom. More ambiguity requires more thoughtfulness from the teacher. Similarly, Sawyer (2004) suggests the type of instruction determines how adaptive the teacher must be. He suggests that teachers do not need to think on their feet when they use prescriptive instruction, but adapting on the fly is necessary when using constructivist instruction. Duffy (1991) asserts that reading

programs encourage passivity in teachers. On the other hand, authentic literacy situations and social interactions, components of open tasks, compel teachers to tailor instruction to the circumstances in which they find themselves. Therefore, they must make spontaneous instructional decisions based upon students' needs. Likewise, Maloch's (2004) research indicates that when teachers move toward using open tasks, teachers' responsiveness is critical. This study supports these assertions that teachers must be more thoughtfully adaptive as a result of the openness of the task.

Implications for Practice

A body of research has demonstrated that open tasks are beneficial for student motivation and learning (Guthrie & Humenick, 2004; Miller & Meece, 1999; Perry, 1998; Purcell-Gates et al., 2007; Turner, 1995). Also, researchers have suggested that open instruction promotes differentiated instruction, explicit instruction, and interdisciplinary instruction. Therefore, it seems that reading teacher educators would encourage teachers to use open literacy tasks. However, if teacher educators are going to teach teachers to use open instruction, they should also encourage teachers to be adaptive because teachers must adapt their instruction when implementing open tasks. Moreover, it is problematic to assume, as many have in the past (e.g., Feldon, 2007; Snow et al., 2005), that the ability to thoughtfully adapt instruction comes with experience. For example, the teacher in this study with the most experience—Ms. James, whose 16 years teaching is more than the other three teachers combined—used primarily closed tasks and her adaptations and rationales were minimally thoughtful. Conversely, Ms. Massey, a

fourth-year teacher, implemented many moderately open and open tasks and was the most thoughtful in her adaptations and rationales.

This research did not study how to teach teachers to be adaptive, and there is little guidance toward this end in the research literature (Duffy et al., in press). There are practices, however, that seem likely to help teachers develop this characteristic, such as case-based teaching (Lundeberg & Levin, 2003), teacher research (Baumann & Duffy-Hester, 2000), and teacher visioning (Duffy, 2005; Hammerness, 2003; Turner, 2006). In case-based teaching, for instance, groups of teachers or teacher candidates discuss a case that presents a classroom situation. The group discusses various options the teacher in the case has, exploring the benefits and detriments of various decisions. This sort of discussion where teachers take time to explore multiple perspectives and potential outcomes is likely to help teachers thoughtfully adapt their instruction when they face an unanticipated instructional situation. Likewise, teacher research allows teachers to systematically examine their own instruction (Cochran-Smith & Lytle, 1993; Hubbard & Power, 2003). Therefore, teacher research is designed to help teachers become more thoughtful about their instructional actions. A teachers' vision is "a teacher's sense of self, of one's work, and of one's mission" (Duffy, 2002, p. 334). Duffy (2005) suggested that teachers with a vision are empowered to teach toward this vision and therefore have the strength of mind to adapt their instruction as needed.

There are other teacher characteristics that appear to be associated with teachers' ability to thoughtfully adapt their instruction. One is teacher knowledge. The prevalent developmental view of teacher learning (e.g., Alexander & Fives, 2000; Burden, 1990)

implies that experience builds knowledge, and some contend (e.g., Snow et al., 2005), that experience facilitates the ability to adapt instruction Darling-Hammond and Bransford (2005) and Snow et al. (2005) both present the concept of "adaptive expertise." This theory suggests that the most effective teachers are not only experts, with strong "pedagogical content knowledge" (Shulman, 1987), but also adaptive, adjusting their practice as needed. These researchers differ in their views of when adaptive expertise should be emphasized. Snow and her colleagues suggest that adaptive expertise is only associated with experienced teachers. Darling-Hammond and Bransford, on the other hand, imply that adaptive expertise is a characteristic teacher educators should emphasize at the outset of teachers' educations. As noted above, this study appears to support Darling-Hammond and Bransford's view that even teachers with limited experience can be adaptive. To be clear, this position does not disregard the power of experience in becoming a more effective teacher; it does, however, dispute the assumption that only experienced teachers are able to thoughtfully adapt their instruction.

This study suggests teacher experiences that may be facilitative of teachers' ability to thoughtfully adapt their instruction. For example, Ms. Kim and Ms. Massey, the teachers who tended to be thoughtful in their adaptations and rationales, have recently completed voluntary professional development. Ms. Kim has completed her national board certification, and Ms. Massey is in the midst of completing both her national board certification as well as a reading specialist master's degree. Neither Ms. James nor Ms. Anderson has completed national board certification or any master's coursework.

Therefore, these experiences could be a factor in developing Ms. Kim and Ms. Massey's

ability to implement open tasks and thoughtfully adaptive their instruction. After all, research has indicated that self-directed professional development is effective in promoting teacher development (Burden, 1990).

Another difference between these sets of teachers is their recent teaching experiences. Both Ms. Massey and Ms. Kim, who implemented open tasks and thoughtfully adapted their instruction, are teaching in a testing grade for the first time. Therefore, they have never before dealt with the pressure to increase high-stakes test scores. Ms. James and Ms. Anderson, who implemented mainly closed tasks and adapted in primarily minimally thoughtful ways, have previously taught in testing grades and, therefore, are more aware of the pressures to increase high-stakes test scores. Pressure to raise high-stakes test scores, particularly in high-poverty schools such as Southern, is immense and frequently encourages teachers to teach in prescribed ways and discourages teachers from adapting their instruction (Pearson, 2007). Therefore, Ms. James and Ms. Anderson's previous experiences teaching in testing grades may encourage them to implement closed tasks and inhibit their willingness to adapt their instruction. Conversely, Ms. Kim and Ms. Massey's inexperience with high-stakes testing could "free" them to teach using open tasks and to adapt their instruction as they see fit.

Implications for Policy

It is evident that more research is needed to provide insight into developing effective teachers who implement open tasks and thoughtfully adapt their instruction. However, the effort to develop such teachers is hindered by the current educational and political situation, which stresses "scientifically-based" research and high-stakes testing.

In this environment, skills-based literacy instruction and achievement on standardized tests are valued—and mandated. Reading First, for example, only funds programs that are based upon a narrowly conceived version of scientifically-based reading research. With this type of instruction, teacher adherence to the program is required and teacher thoughtfulness is discouraged. Similarly, this environment measures student outcomes narrowly: as performance of basic skills on high-stakes tests.

Such a limited view of literacy dismisses motivation, critical thinking, and creative thinking—or what Allington and Johnston (2002) call "thoughtful literacy" (p. 14). These student outcomes are associated with open literacy tasks (Perry, 1998; Turner, 1995). To help students achieve a high-level of literacy—to become students who are confident and motivated, who read and write for their own purposes, who embrace challenges and work collaboratively to accomplish shared goals, and who ask important questions and evaluate what they read—future research must examine the relationships among a broad view of literacy learning, open tasks, and teacher thoughtfulness. This idea is explored in detail later in this chapter. Nonetheless, research suggests that thoughtful literacy is associated with open tasks, and this study indicates that open tasks are associated with teachers who thoughtfully adapt their instruction. Therefore, recent efforts to improve student literacy through scientifically-based reading research and highstakes testing may be misguided because they discourage the exact teaching practices that are most beneficial for developing thoughtfully literate students: open literacy instruction and teacher thoughtfulness.

Implications for Future Research

This research agenda has laid the foundation for future research on adaptive teaching by creating a coding system for adaptations and rationales as well as by developing a rubric for rating the thoughtfulness of both adaptations and rationales. The research team created these measures by analyzing over 300 examples of adaptations. This process has stabilized the coding systems; that is, the codes are no longer changing, as they were earlier in the grounded theory process. Therefore, the coding systems now offer a well-documented means of identifying how and why teachers adapt their instruction. This progress, itself, fills a gap in the research literature because in spite of the frequent support for adaptive teaching, no research has empirically categorized how or why teachers adapt their instruction.

Moreover, the measures that have been created through this process distinguish teacher adaptations as a unique construct. For example, the codes used to describe adaptations are vastly different from previous research on scaffolding (e.g. Beed et al., 1991; Roehler & Cantlon, 1997). Likewise, the coding system for rationales differs from previous research on antecedents in decision-making research (Clark & Peterson, 1986). Furthermore, through previous studies, the research team has distinguished between adaptations and responsive reactions. Responsive reactions are teacher actions that are not planned but are teacher behaviors that have been routinized. For example, teachers often praise students for following directions. They do not plan in advance to positively reinforce a particular student's behavior, but it is a common routine for teachers, not a

thoughtful change using professional knowledge. These developments lay the foundation for more complex research studying adaptive teaching.

This study suggests that when teachers implement open literacy tasks, they tend to adapt their instruction more often, in more thoughtful ways, and for more thoughtful reasons than when they use closed literacy tasks. A next step in this line of research is to explore relationships among open tasks, teacher adaptations, and student outcomes. This study suggests that (a) teachers must adapt their instruction in the complex environment of the classroom, (b) teachers adapt their instruction in identifiable ways and (c) thoughtful adaptations are associated with open tasks. When teachers adapt their instruction, though, how does it influence student learning? How researchers choose to measure student literacy learning is important. Recently, policy makers have adopted a very narrow view of learning, equating it with achievement on standardized assessments that focus on basic skills. Many researchers call for a more comprehensive view of literacy learning that considers not only basic skills but also motivation, critical thinking, and creative thinking (e.g., Allington & Johnston, 2002).

Self-regulated learning is a construct that embodies thoughtful literacy. Self-regulated learners are described as motivated, strategic, and metacognitive (Perry et al., 2007). Motivation, strategic reading, and metacognition are all associated with proficient readers who have both the skill and the will to read (Baker, 2005; Dole, Nokes, & Drits, in press; Miller & Faircloth, in press; Paris, Wasik, & Turner, 1991). Therefore, self-regulated literacy learning seems like an effective conceptualization for describing students who engage in thoughtful literacy. In the past, researchers have used surveys,

observations, and interviews to measure self-regulation. Previous research has demonstrated that open tasks promote self-regulated learning (Perry, 1998; Turner, 1995). A study examining open tasks, teacher adaptations, and student self-regulated learning would be helpful in learning more about how open tasks and adaptive teaching influence student learning.

Tying teacher adaptations to any type of student learning presents methodological difficulties. Should the researcher attempt to tie particular adaptations to specific content or processes? And at what point should student learning be evident? Immediately following the adaptation? One day later? One week? For these reasons, a practical and productive study to begin examining teacher adaptations and student learning might examine instruction and learning more holistically. For example, a researcher could study how and why teachers adapt their instruction over time and use observation and interviews to document students' self-regulated learning over time. Therefore, the researcher could determine how often the teacher adapted her instruction, in what ways, for what reasons, and how thoughtful the adaptations and rationales were and then examine these data in light of students' self-regulated learning across the same amount of time. With several cases, this type of study would inform the relationship between teacher adaptations and student learning as well as provide insight into how to more precisely tie teacher adaptations to a more comprehensive form of student learning.

Another important line of research is studying how to develop thoughtfully adaptive teachers. Currently, little is known about how to develop this characteristic in teachers. Some theories indicate that the ability to adapt is associated with expertise

(Darling-Hammond & Bransford, 2005; Snow et al., 2005). Studying this theory would be a productive line of research. However, defining expertise is challenging, and the way it has often been defined in the past, as experience, is problematic. This study provides some direction in thinking about the concept of expertise. For the participants in this study, voluntary professional development activities such as national board certification and graduate coursework appeared to be associated with adaptive teaching and, therefore, could be tested as a measure of expertise. A study examining the adaptations of a sample of teachers including both nationally board certified and non-nationally board certified teachers or teachers who have master's degree and teachers who do not would provide insight into the impact of these professional development experiences on teachers' ability to thoughtfully adapt their instruction.

Another approach to studying the idea of adaptive expertise is to examine teachers' adaptations in light of their knowledge about teaching reading. Researchers are currently developing and validating instruments that assess teachers' knowledge about how to teach reading (Carlisle et al., 2007), which is a logical measure of expertise.

Therefore, a researcher could assess teachers' knowledge of teaching reading and study the adaptations they make to determine relationships between knowledge of teaching reading and adaptive instruction. A study such as this could inform the theory of adaptive expertise.

Other researchers have also suggested instructional practices that encourage teachers to be more thoughtful as they teach. For example, using case-based instruction is designed to encourage teachers to make informed instructional decisions by taking time

to explore multiple perspectives and potential outcomes. A researcher, then, could use intervention methods, working with teachers using cases, and study how this experience influences teachers adaptations. A similar intervention study could be conducted in the same fashion helping teachers conduct action research or helping teachers develop visions for their instruction. The teacher research movement is based upon the idea that teachers become more thoughtful practitioners by systematically studying their own teaching (Baumann & Duffy-Hester, 2000; Cochran-Smith & Lytle, 1993) and teacher visioning is thought to empower teachers to teach "against the grain" to do what is best for their students (Duffy, 1991, 2005). Exploring the effect of interventions such as case-based teaching, teacher research, or teacher visioning on teachers' adaptive instruction would provide insight into how to develop thoughtfully adaptive teachers.

An additional line of research that would inform thoughtfully adaptive teaching is to follow the logic of exemplary teacher research. This type of study would identify exemplary teachers and then study their literacy instruction to determine the openness of the tasks they implement, the adaptations they make, and the rationales they provide for adapting. This type of study would further develop the construct of thoughtfully adaptive teaching and provide further insight into the relationships among the openness of tasks, adaptations, and rationales.

Conclusion

In this chapter, I discussed the implications of this study for theory, for practice, for policy, and for future research. This research found statistically significant differences among the thoughtfulness of teachers' adaptations and rationale when using closed,

moderately open, and open tasks. This research has implications for theories related to adaptive teaching because it provides data on the circumstances in which teachers adapt, how they adapt, why they adapt, and the thoughtfulness of their adaptations and rationales. The statistically significant differences among teachers raise important questions about how to develop teachers who use open tasks and who adapt their instruction in thoughtful ways and for thoughtful reasons. Teacher educators often promote open instruction because of its positive effects on student motivation and learning and because of the because of the benefits it affords teachers. In light of the relationship between the openness of the task and teacher adaptations, teacher educators should also help teachers become thoughtfully adaptive. Also, this research underscores how current policy may be limiting effective instruction by discouraging the use of open tasks and teacher thoughtfulness. Finally, the results of this study provide implications for future research on tying teacher adaptations to student learning and on developing adaptive teachers.

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Appendix A

Rubric for Rating Openness of Tasks

Date:

Describe the task and its product:

Authenticity (adapted from Duke et al., 2006/7)

- 1 The task is limited to task that are completed primarily in school.
- 2 The task mimics outside-of-school tasks, but has features of school-based activities.
- 3 The task closely replicates tasks completed in day-to-day lives outside of school.

Collaboration (adapted from Miller & Meece, 1999)

- 1 Students work alone on the task.
- 2 Students collaborate minimally in the task.
- 3 Students collaborate throughout the task.

Challenge (adapted from Miller & Meece)

- 1 The task requires letter- or word-level writing.
- 2 The task requires sentence-level writing.
- 3 The task requires paragraph-level writing.

Student Directed

- 1 The students have no input on the task.
- 2 The students have input, but the choices have minimal influence on the task.
- 3 Students have input into many substantial aspects of the task.

Sustained (adapted from Miller & Meece)

- 1 The task takes place within one sitting.
- 2 The task takes place within one or two day.
- 3 The task spans over three or more days.

Appendix B

Rubric for Rating Thoughtfulness of Adaptations and Rationales

Considerably Thoughtful (must meet both criteria)

- The teacher is showing exemplary or creative use of professional knowledge or practice
- The adaptation or rationale is clearly associated with a larger goal the teacher holds for literacy growth (i.e., the adaptation or rationale is motivated by a desire to develop a deep or broad understanding or a conceptual or attitudinal goal).

Thoughtful

- Must be tied to the specific lesson objective or to a larger goal the teacher wants to develop
- Must not meet any of the criteria for "minimally thoughtful."

Minimally Thoughtful

- The adaptation or rationale requires minimal thought
- The teacher's use of professional knowledge or practice is fragmented, unclear, or incorrect
- The adaptation or rationale does not contribute to the development of either a larger goal or a specific lesson objective.

Appendix C

Observation Protocol

Teacher:
Date:
Time:
Running field notes of tasks and adaptations:

Appendix D

Teacher Interview Protocol

Teach	er:				
Date:					
Time:					
1.	When I saw you d	uring the lesson, was that a			
	spontaneous change, something you had not planned?				
2		1.15			
2.	Why did you make that change? (Probe as r	leeded)			
3.	How do you think the students did today? (Probe as needed)			