Comprehension Questioning
Small Group Reading Instruction for Urban Students with Learning Disabilities

BY

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THESIS
Submitted as partial fulfillment of the requirements
for the degree of Doctor of Philosophy in Special Education
to the Graduate College of the
University of Illinois at Chicago, 2012

Chicago, Illinois

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Comprehension Questioning

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Abstract

It is evident from reading research that students with learning disabilities (LD) greatly benefit from teacher-student interactions during small group comprehension instruction (e.g., Berkeley, Scruggs, & Mastropieri, 2010). Furthermore, given that questioning takes up the vast majority of instructional interactions between teachers and students (Chin, 2007; Marzano, Pickering, & Pollock, 2001), teachers who have mastered the art of questioning are undoubtedly in a better position to positively influence students’ reading comprehension (Brua, 1998). Recent research shows that teachers use questioning not only to check students’ understanding, but as scaffolds for developing reading comprehension (Frey & Fisher, 2010). Thus, the purpose of this study was to describe the questioning practices used by general education teachers during small group reading comprehension instruction where students with LD were included. More specifically, this study sought to determine: how often teachers use reading comprehension questions, what types of reading comprehension questions are asked, and how teachers follow up to students’ incorrect or incomplete responses to reading comprehension questions.

Participants included five general educators who use small group reading instruction to teach 4th or 5th grade readers. The teachers all held elementary teaching certificates, and had less than 10 years teaching experience. This qualitative study involved audiotaping each teacher’s small group reading instruction on two separate occasions. In addition, the researcher directly observed and took field notes on instruction and contextual factors. Each small group lesson observed included at least one student with a LD and all were African American. After the second classroom observation, a stimulated recall interview was conducted. During this interview, the researcher engaged each teacher in a reflective dialogue about the decisions they made related to comprehension instruction during small group instruction. Field notes, classroom discourse transcripts, and the stimulated recall interview were coded and systematically analyzed using constant comparative analysis (Huberman & Miles, 1994; Strauss & Corbin, 1990).

Findings generated descriptive data on the frequency and forms of questions asked, and illuminated the general educator’s role in using questions to support reading comprehension for African American students with LD. Teachers asked questions at a high rate during small group reading instruction, and approximately two thirds of the questions asked focused on reading comprehension. The types of comprehension questions asked most depended on the teacher and varied considerably; however the most frequent type of comprehension question asked was literal elicitation questions with the next two most common types being inferential elicitation questions and divergent questions. When it came to supporting students’ comprehension of narrative fiction text, teachers used a variety of scaffolding strategies, including prompts, cues, models, and explanations. This study has implications for both research and practice on ways to promote small group reading comprehension instruction that is beneficial for African American students with LD.
DEDICATION

This thesis is dedicated to my family, the African American diaspora, and most importantly to God, without whom none of this would be possible.
ACKNOWLEDGEMENTS

I would like to thank my dissertation committee – (Dr. Marie Tejero Hughes, Dr. Mavis Donahue, Dr. Michelle Parker-Katz, Dr. Elizabeth Talbott, and Dr. Alfred Tatum) – for their unwavering support and guidance. Their detailed feedback, words of wisdom, and encouraging smiles supplied me with the fuel necessary to continue and complete this journey of discovery. A special thanks goes out to the five teachers for allowing me to come into their classrooms and learn from them. I would also like to acknowledge Betty Terry-Lundy, Tinaya York, Linda Ford, Ebony Andrews-Hill, and David Yokley who gave unselfishly of their time and expertise.

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**INTRODUCTION**

*Teacher:* What do you all think of what we’ve read so far?

*Chris:* Lafayette’s brother, Charlie, doesn’t like him anymore.

*Denise:* I know. He’s givin’ him dirty looks – n – stuff!

*Tyrell:* I think Lafayette’s jealous of his new friend Aaron –

*Chris:* - Aaron’s not new. He’s been there all the time. He just now started likin’ Charlie.

*Antoine:* All of y’all wrong! Lafayette does like his brother. He let him hang out with him and Aaron while he was combing his hair to get ready to go out. *And,* he told him stories about when the Mama and Daddy was alive!

(The other three students stare at Antoine for a brief moment in disbelief.)

*Denise:* What!? Where you been?! They share a room because the big brother is takin’ care of them and they can’t afford a bigger place. And look, it says right here (pointing to text on p. 3) that *old* Charlie would tell Lafayette stories. That was before he got locked up in that boy’s home.

*Tyrell:* Yeah, why you think Lafayette calls him Newcharlie?!

*Antoine:* Oh, I thought Newcharlie was just his name.

With each additional clue cited as evidence from the text, a puzzled then embarrassed look spread across Antoine’s face. Other students in his reading group were able to use text details as clues to infer and interpret the novel *Miracle’s Boys* (Woodson, 2000). Even though he is able to accurately decode each word in the text, 11-year-old Antoine’s learning disability (LD) makes it challenging for him to comprehend text. It is conversations such as these from my teaching experiences that highlight difficulties students with LD have in comprehending text, and stress the urgency for explicit, intensive supports.
**Reading Comprehension and Instruction for Students with LD**

When it comes to reading comprehension, students with LD face a series of learning challenges. Reading comprehension difficulties include: metacognition, recalling details, making inferences, drawing conclusions, and predicting (Sencibaugh, 2007). Difficulties with phonological processing, metacognition, and making inferences are primary barriers when it comes to comprehending text for students with LD. Research supports using the following teaching techniques to support reading comprehension: strategy cues, sequencing, segmentation, advanced organizers, questioning, imagery, and repeated reading (Sencibaugh, 2007; Swanson, 1999). Even when students with LD become equipped with reading comprehension strategies, they often do not know when to appropriately use the strategies. Robertson, Priest, and Fullwood (2001) suggest twenty ways to assist learners who do not effectively use reading strategies. Similarly, Swanson and DeLaPaz (1998) share a process of modeling metacognitive strategies needed by students with LD. They include strategies for questioning, comprehending narrative text, and summarizing expository text. McLesky and Waldron (2011) map out components of high-quality, intensive instruction for students with LD educated in inclusive settings using the following categories: grouping, instructional design, delivery of instruction, independent practice, and progress monitoring. Even though there are research based strategies available for improving the reading comprehension of students with LD, there is scant evidence of them actually being implemented. Classroom observation studies reveal that students with LD have limited practice with reading comprehension strategies, including questioning, given the low quality and limited amounts of time spent on reading comprehension instruction (Swanson, 2008).
The Context: Small Group Reading Instruction

This study was situated within the context of small group instruction. Small group instruction is a part of Pearson and Gallagher’s (1983) gradual release of responsibility framework. Such a supportive context is required as students take on the challenging task of learning how and when to use particular reading comprehension strategies in order to process or understand text (Liang & Dole, 2006). Learning involves students gradually becoming more and more proficient as they develop, and it is the teacher’s role to adapt instruction to support student growth along such a continuum. A common phrase that has been echoed by teachers, administrators, and professional developers is “let’s start with where they are and take them to where they need to be.” This phrase has become a sort of slogan for those who view students’ learning along a developmental continuum (Bear et al., 2000; Fountas & Pinnell, 2006; Routman, 2008). The cognitive space where this learning takes place is known as the zone of proximal development (Vygotsky, 1978). In order for students to move along a developmental continuum, support from a more knowledgeable other is required (Frey & Fisher, 2010; Kong & Pearson, 2002; Vygotsky, 1978). These supports come in various instructional forms. In this study, teachers scaffolded learning for students during small reading group instruction using questions as a tool for helping students understand fictional narrative text. Each of the small groups included one or more students with LD. Teachers decided when to remove this scaffold as she gradually released the responsibility to the student for comprehending text.

The gradual release of responsibility framework (Pearson & Gallagher, 1983) has also been referred to as the optimal learning model and scaffolded instruction (Kasper, 2007; Routman, 2008). Teacher-researchers, professional developers, practitioners, and district-supported curricula commonly use these terms in reference to explicit, intentional reading
instruction. A general understanding behind this framework is that explicit instruction and modeling is not enough for students to learn reading curricula or to become proficient, strategic readers. Therefore, teachers must engage students in the learning process along a continuum of gradually decreasing teacher support as students continually take on more and more responsibility for becoming proficient readers (Pearson & Gallagher, 1983). For example, instructional practices that teach students to become strategic readers follow a sequence such as: interactive read aloud, shared reading, guided reading, and independent reading (Fountas & Pinnell, 2006; Routman, 2008). In the beginning of the sequence for teaching students to become independent readers, the teacher takes full responsibility for reading aloud the text and providing vocabulary and reading comprehension supports. Towards the middle of the sequence, students take on some responsibility for learning as they decode words and discuss text alongside the teacher. At the end of the sequence, students have thoroughly practiced the skill and demonstrated strategic use of it. It is at this juncture that instructional scaffolds can be removed as students independently use the strategy (Pearson & Gallagher, 1983).

**Statement of the Problem**

At an increasing rate, general educators in inclusive classrooms educate students with LD with 62% of students with LD spending the majority of their day within inclusive classroom settings (McLesky & Waldron, 2011). Given this increased rate of inclusion, researchers do not seem positive about the ability of general educators to provide students with LD the type of intensive instruction needed in inclusive classrooms (McLesky & Waldron, 2011). The need for strong, fluid, collaborative relationships between general and special educators is pivotal as they work to modify instruction, assessments, and classroom routines to provide the type of intensive instruction needed for students with disabilities (Leko & Brownell, 2009; McLesky & Waldron, 2011).
students with LD who experience difficulties with reading comprehension are challenged with phonological awareness, fluency, detail recall, making inferences, and metacognition (Sencibaugh, 2007). Research based strategies for improving the reading comprehension of students with LD do exist (Hollenbeck, 2010; Robertson, Priest, & Fullwood, 2001; Swanson & De La Paz, 1998; Swanson & Deshler, 2003). A research synthesis of observation studies on reading instruction for students with LD revealed limited use of effective reading comprehension strategies (Swanson, 2008). A finding specific to reading comprehension instruction was that small amounts of time were spent on low-quality reading comprehension instruction (Swanson, 2008). Small group instruction provides the most effective environment for delivering more intensive, explicit, and comprehensive support for students having difficulty in reading (Foorman & Torgesen, 2001; Vaughn, Hughes, Moody, & Elbaum, 2001; Vaughn et al., 2003).

There is a massive gap in the existing research on effective instructional practices to support the reading comprehension of urban students with LD. One particular study observed teachers using questions as scaffolds to support student reading comprehension (Frey & Fisher, 2010). Given the large number of academically and ethnically diverse classrooms, would such a practice be beneficial for urban students with LD? Essentially, researchers and practitioners must figure out how to get effective strategies to the students who need them the most. Currently, little is known on how questioning can be used as a scaffold during small group reading instruction to develop the reading comprehension of students with LD.

**Research Purpose and Questions**

The purpose of this study was to identify ways that general educators support 4th grade and 5th grade African American students with LD who faced difficulties recalling details, making inferences, and metacognitively processing fictional narrative text during small group reading
instruction. Specifically, this study examined how teachers used questioning as a scaffold during explicit reading comprehension instruction. Contextual factors such as learning within an urban environment and the need for culturally responsive teaching served as backdrops for selecting the participants and the research setting. Another important contextual factor for this study involved the educational placement of students with LD. Even though students with LD spend the majority of their school day in general education classrooms, there are few observational studies detailing the types of instructional supports they receive. Consequently, this study’s purpose was to better understand questioning practices as a comprehension support for African American students with LD educated in urban settings. The study answered the following questions:

- How often do general education teachers ask reading comprehension questions during small group reading instruction to help students understand fictional narrative text?
- What types of reading comprehension questions do general education teachers ask during small group reading instruction to help students understand fictional narrative text?
- How do general education teachers follow-up when students’ responses to the teachers’ reading comprehension questions are incorrect or incomplete?
Review of Literature

Within the past 100 years, reading instruction in the United States has gone through several changes. Students in the colonies were taught letter-sound relationships despite Horace Mann’s suggestions of learning whole words (Palmaffy, 1997). In the early 1920s many educators took hold of Mann’s whole word approach, leading to the popular look-say technique for learning to read (Palmaffy, 1997). Later on, an extensive review of literature by Chall (1967) supported the effectiveness of explicit, synthetic phonics instruction in teaching children to read. The whole language approach was introduced in the latter part of the 20th century (Goodman, 1989). Since then, the National Reading Panel’s (NRP) (2000) report has re-emphasized the importance of systematic, explicit instruction in phonics, and identified other essential components of effective reading instruction. Even though the NRP’s report was not without criticism (Ehri & Stahl, 2001; Venable, 2006), a common consensus on the importance of reading comprehension instruction seems to have grown from it. Shortly after the NRP’s report was released, another team was assembled and charged with the task of developing a research framework to address the issue of reading comprehension instruction (Snow, 2002). The results of the RAND Reading Study Group report on reading comprehension served as a catalyst for heightened attention on the importance of explicit reading comprehension instruction, and became the focus of several subsequent research studies (Dewitz, Jones, & Leahy, 2009; Harris, Alexander, & Graham, 2008; Keene, 2010; Pardo, 2004; Liang & Dole, 2006; Snow & Sweet, 2003; Sporer, Brunstein, & Kieschke, 2009).

The review of literature supporting this study provides background information on three major topics: reading comprehension instruction for students with and without LD, questioning as it is used to support reading comprehension, and teacher decision-making processes. The first
section serves as an introduction to reading comprehension instruction, and contains philosophies, definitions and criteria for effective reading comprehension instruction. The second section includes research based instruction in reading comprehension shown to be effective for students with LD, examples of studies where students with LD received intensive interventions, and brief instances of studies focused on reading comprehension instruction for students with LD from culturally linguistic and diverse (CLD) populations. CLD populations with LD were viewed since there was one study found focusing on reading comprehension instruction for African American students with LD. The next section – questioning for reading comprehension – begins with the impact of questioning on cognitive processes, shifts to how questioning is used as a strategy during instruction, and concludes with the value of questioning in supporting the reading comprehension of students with LD and other struggling readers. Situating this study within a conceptual framework of the teacher mediating transactions between student and the text, the final section of this literature review examines teacher expertise and decision making.

**Theoretical Framework**

The theoretical framework that guides this study is Marie Rosenblatt’s (1978) transactional theory. Her theory made a profound effect on the study of reading comprehension. The emergence of transactional theory earmarked a dramatic philosophical shift from viewing reading comprehension as a product of learning that is assessed to viewing reading comprehension as an interactive, constructive, and holistic process of learning (Maria, 1990; Snow, 2002). Rosenblatt (1978) viewed the process of reading comprehension as a transaction which takes place between the reader and the text, where the reader is very much a part of, and actively engaged in constructing meaning. This model is consistent with a report published by a
team of researchers who studied reading comprehension, citing reading comprehension as a process involving the reader, the text, and the purpose for reading (Snow, 2002).

Situating knowledge of the text and the learner, teachers must be familiar with the transactional process that takes place between the reader and the text. Rosenblatt (1983) put it best when she wrote, “reading is a transaction, a two-way process, involving a reader and a text at a particular time under particular circumstances” (p. 268). This quote is essential to understanding instructional practices where teachers facilitate this text-student transaction and provide instructional supports as students’ comprehend text. When students experience text for themselves, the transaction takes place is independent of the teacher and intimate to the text and the student. It is up to the teacher to equip students with different ways to experience that text (Rosenblatt, 1983), carefully observe students’ responses to the text, and know how to fluidly move in and out of the transaction of reader and text in ways supportive to students’ reading comprehension. This transaction is different using the same text for different students or when students interact with the same text at different time periods. Many people experience text differently when read a second time after having had different life experiences. Rosenblatt (1983) attributes these changes to experience, both as individuals and when interacting with others. Experiences can cause students to comprehend text during the transactional process in ways where our experience enhances the text while, and at the same time, the text enhances our experiences due to the aesthetic stance taken when reading (Rosenblatt, 1983).

**Reading Comprehension**

Researchers view and define the role of reading comprehension in different ways. With the passage of time, the concept of reading comprehension has shifted from a by-product of decoding to an integrated, holistic process. What is viewed as effective reading comprehension
instruction, therefore, has been influenced by philosophical changes. This section will look broadly at reading comprehension and share literature responding to the following questions. What philosophical underpinnings of reading comprehension have influenced the field? How do educational researchers define reading comprehension? What will serve as the operational definition for reading comprehension in this study? Finally, what has been accepted as effective reading comprehension instruction in the field of education?

**Operational definition of reading comprehension.** The study of reading comprehension is relatively new in the field of education. It became a dominant research focus in the fields of education and psychology when a philosophical shift occurred from a behaviorist theory to an information-processing model (Maria, 1990). In fact, from the early 1900s to the 1960s and 1970s, there was a behaviorist view of learning that reading comprehension as a product or result of students having learned how to decode text (Maria, 1990). Since then, the information-processing model situates reading comprehension as a transactional process involving the reader, the text, the activity/purpose, and the sociocultural context (Maria, 1990; Pardo, 2004; Snow, 2003). In addition, Rosenblatt’s (1978) transactional theory made a profound effect on the study of reading comprehension. It earmarks a pivotal shift in the study of reading comprehension changing its view from an assessed learning product to an interactive, constructive, and holistic learning process (Maria, 1990). Subsequent definitions of reading comprehension have included common elements of transactions between the reader, the text, and the context. Instead of reading comprehension being viewed as a residual effect of the reading process, this thinking situates reading comprehension within the reading process as an integral part of it.
Perhaps one of the most comprehensive definitions of reading comprehension is:

“Reading is the holistic process of constructing meaning from written text through the interaction of (1) the knowledge the reader brings to the text; (2) the reader’s interpretation of the language that the writer used in constructing the text; and (3) the situation in which the text is read.” (Maria, 1990, p. 14). Stated in a similar but more succinct manner is one definition published by the RAND Reading Study Group. Reading comprehension is “the process of simultaneously extracting and constructing meaning through interaction and involvement with written language. It consists of three elements: the reader, the text, and the activity or purpose for reading” (Snow, 2002, p. xiii). Similar definitions including interactions between the reader, the text, and the context are also found in the literature (Snow, 2003; Pardo, 2004). Some definitions of reading comprehension inherently include decoding as a component referring to reading comprehension as a way to help students understand text (Maria, 1990). Other definitions focus on the researchers focus on the meaning making process of reading (Fountas & Pinnell, 2001) where students construct meaning (Pardo, 2004). Recent studies highlight the metacognitive qualities of reading comprehension where students are required to know what they understand, what they do not understand, and which strategy they can use to repair meaning (Harris, Alexander & Graham, 2008; Keene, 2010; Pardo, 2004).

Even with these differences in defining reading comprehension, there are certain essential elements common to reading comprehension. Decoding is a part of reading comprehension, either as a contributing factor or a part of the process. Reading comprehension is multidirectional involving the reader, the text, and the context for reading. The reader is actively engaged with the text using prior knowledge and constructing meaning. It is from these essential elements that an operational definition of reading comprehension for this study has been drawn.
Since reading comprehension is such an integral part of the reading process, this study refers to the two synonymously. Consequently, this study defines reading comprehension as a building process where the reader uses tools readily available to him/her (decoding, critical thinking, reading strategies, metacognition, schema, etc.) to construct an understanding of text. This process can be complex and time consuming for actively engaged, struggling, and proficient readers, and it is necessary for the reader to have explicit, intentional instruction, scaffolded support, and numerous opportunities to develop reading comprehension using text of different genres and difficulty levels. Given that the focus of this study is to listen in on the types of reading comprehension questions asked of students during small group reading instruction, an operational definition of a reading comprehension question must also be given. In essence, a reading comprehension question is a question which checks students’ understanding of the text, knowledge of the content, or metacognitive uses of specific reading comprehension strategies used to process text. Reading comprehension questions are viewed holistically as a tool teachers use to help students construct meaning from text. Therefore, questions that assist students in decoding words will not be the focus of this study.

**Effective reading comprehension instruction.** Due to its countless citations in current research studies, its influence on existing classroom practices, and its decision-making power in both local and national educational policies, one cannot debate the impact and influence at the elementary level of the report on reading instruction published by the NRP (2000). The report identified the components of effective reading instruction as: phonemic awareness, phonics, reading comprehension, fluency, and vocabulary (NRP, 2000) (see Figure 1 for information about each).
### Components of Effective Reading Instruction

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| **Phonemic Awareness** | The sounds of speech that we speak can be represented with letters and words using an alphabetic system. Phonemic awareness curricula capitalizes on the early stages of child development by using rhythmic listening activities to get young children to pay attention to the separate sounds in words (Adams, 1998). Phonemic awareness:  
  - is predictive of reading proficiency at the end of first grade and in learning how to read.  
  - sets apart proficient readers from struggling readers.  
  - can be taught but not mastered with ease due to the variations in how different people pronounce different phonemes or units of sound (Adams, 1998). |
| **Phonics**        | Phonics instruction involves teaching major letter-sound correspondences including long vowels, short vowels and digraphs. (Ehri, Nunes, Stahl & Willows, 2001; Jeynes, 2008). Systematic phonics instruction, when compared to less systematic instruction produced greater effects, and the synthetic phonics approach produced slightly better results than the analytic phonics approach (Ehri, Nunes, Stahl, & Willows, 2001). Phonics instruction should begin earlier in kindergarten and first grades rather than later with older readers or readers in need of remediation (Chall, 1967; Adams, 1998). |
| **Fluency**        | Fluency is an essential part of the reading process involving speed, accuracy, and prosody (NRP, 2000). High oral reading rates have been linked with proficient reading comprehension (Pinnell et al., 1995). Students need to be able to read text fast enough in order to give reading comprehension the mental attention it needs, especially as the content of text becomes increasingly less familiar and more difficult to students (Hiebert & Fisher, 2005). |
| **Vocabulary**     | Vocabulary includes sight words, Tier 2 & 3 descriptive vocabulary, and academic vocabulary (Marzano, 2004); provide both direct and indirect opportunities to learn vocabulary in repetitive ways (Marzano, 2004). |
| **Reading Comprehension** | Reading comprehension is defined as the process where readers construct meaning by interacting with text using prior knowledge, previous experience, information in the text, and the stance the reader takes in relationship to the text (Pardo, 2004). Instruction needs to be explicit, intentional, and metacognitive (Pearson, 2008; Harris, Alexander & Graham, 2008). |
Changes in ways to determine the effectiveness of reading comprehension instruction naturally followed after changes in ways to conceptualize and define reading comprehension processes. As reading comprehension came to be viewed as a reading process, measuring effective reading instruction slightly shifted from a focus on student achievement in the 1960s and 1970s to a focus on process-product relationships in the 1980s (Foorman & Torgesen, 2001). The judgmental term “best practices” commonly used during the 1990s has now been replaced with “evidence-based research” (Foorman & Torgesen, 2001). These shifts in thinking helped to move areas of reading research towards a more extensive focus on the process of reading comprehension along with its relationship to student outcomes.

Countless books, handbooks, research studies, articles, and national reports focus on reading comprehension instruction. Of the five components of effective reading instruction cited by the NRP (2000), reading comprehension appears to be the most abstract component. Pearson (2008) notes a shift in the field of reading to include a focus on reading comprehension, a phenomenon that he notes can only be observed indirectly. Tracing a timeline of reading comprehension’s brief 30 year history in reading instruction, Pearson (2008) describes reading comprehension as the intersection of the text, task, and reader and describes the process of reading comprehension to be transformative as the author’s ideas becomes the reader’s. Janssen (2002) suggests that educators and researchers capitalize on this inner process using the self-questioning literary reading strategy to promote students’ reading achievement. Self-questioning during reading is a natural, self-regulatory process that is beneficial to students and gets them actively involved in the reading process (Janssen, 2002). She notes that when students respond to questions about text, they are called upon to infer and hypothesize, further developing their reading comprehension processes. Furthermore, “teaching students to activate relevant prior
knowledge during reading enhances questioning, restructures the schemata and, consequently, leads to better reading comprehension” (Janssen, 2002, p. 98).

Arguing that the NRP’s report on reading comprehension should have included qualitative studies, Almasi, Garas-York, and Shanahan (2006) make a case for reading comprehension instruction within supportive classroom contexts. Their meta-analysis of 11 additional qualitative studies contributed findings on the role of prior knowledge, text, strategy instruction, and classroom learning environments. Prior knowledge was affected by the way in which new knowledge was contextualized within old knowledge, as well as genre clues, the amount of information presented, and topic familiarity. The teacher and types of discussions that took place within learning environments affected how students used prior knowledge and textual links to comprehend. The other significant finding involved explicitly teaching reading comprehension strategies in a meaningful, integrated way – not just in isolation (Duke & Pearson, 2002; Harris, Alexander & Graham, 2008). These findings are also consistent with the report on reading comprehension published by the RAND Reading Study Group (Snow, 2002). More specifically, the learning environment should include: (1) authentic literature, (2) explicit instruction for using multiple strategies, (3) opportunities for discussion, and (4) tools for organizing thoughts and learning text structure (Almasi, Garas-York, & Shanahan, 2006; Keene, 2010).

Reading comprehension instruction involves practices in three major categories: process, content, and metacognition. Reading instruction focused on the process emphasizes strategies used by readers as they become proficient readers. A focus on content emphasizes instruction that helps students better understand the text’s content. Reading comprehension instruction in metacognition requires a self-awareness of the reader acknowledging when understanding is
breaking down and determining which reading process strategy can be used to fix it. Generally speaking, however, effective reading comprehension instruction is said to be explicit, intentional, and provided within a supportive environment (Duke & Pearson, 2002; Keene, 2010; Pardo, 2004; Sporer, Brunstein, & Kieschke, 2009).

Although there is an abundance of literature on the process of reading comprehension, reading comprehension is still complex and should include instruction on using multiple strategies. This is understandable due to the complex nature of reading comprehension. Reading comprehension involves “higher level mental processes that includes thinking, reasoning, imagining, and interpreting” (Kamhi, 2009, p. 179). Good readers use strategies to process text at the word or phrase level that includes: rereading, brainstorming, underlining keywords, and semantic mapping (Janssen, 2002). In addition, instructional routines such as reciprocal teaching instruct students on ways to holistically process text using strategies such as asking questions, summarizing, clarifying, and predicting (Janssen, 2002; Sporer, Brunstein, & Kieschke, 2009). Researchers from this meta-analysis estimate that questioning takes up 75% of instructional time. Therefore, it is essential that we understand the importance of questioning in the classroom. From teacher ‘thinking aloud’ strategies to other types of self-questioning approaches (signal words, main idea, etc.), research shows more favorable results for the use of prompts and less favorable results for using question types (i.e. inferential and literal questions) (Janssen, 2002). No differences were found for peer assisted versus teacher assisted self-questioning instruction (Janssen, 2002). The implication for classroom instruction in light of this body of research is that self-questioning needs to be explicitly taught. Two major findings from this meta-analysis are that self-questioning instruction improves students’ reading comprehension of text, with signal words, generic question stems, and story grammar elements being the most successful types of
questioning prompts (Janssen, 2002). These findings are consistent with the current use of story maps, transition words, and higher order thinking question stems in today’s classrooms. Strategy instruction improves students’ reading comprehension and can also been applied to other texts that students are exposed to (Pearson, 2008).

**Reading comprehension Instruction and Students with LD**

This section of the review of literature narrows it focus to reading comprehension instruction for students with LD. When it comes to reading comprehension instruction, students with LD need more intensive, explicit strategy support to remediate difficulties they have with detail recall, inferences, conclusions, predictions, and metacognition (Sencibaugh, 2007). After an overview of reading research for students with LD is provided, the literature review will focus on examples of Tier 2 intensive interventions where students with LD were provided with necessary, intensive, instructional supports.

**Reading research on students with LD.** Researchers and practitioners have focused on remediating reading difficulties for students with LD. The great debate of whether to use phonologically-based or contextually-based instructional methods to support students with LD led Swanson (1999) to synthesize 34 years of intervention studies. Given the information processing and phonological processing deficits common of students with LD, Swanson focused this meta-analysis on student achievement in word recognition and reading comprehension. Phonological deficits make it difficult for students to develop phonemic awareness skills (Lipka, Leseau, & Siegel, 2006; Molfese, 2006) – a critical component of learning to read and an element that is predictive of later reading success. While these students have difficulty with processing text at the word level, there is another type of student who can easily recognize words
but have difficulty processing information in order to comprehend text (Lipka, Leseau, & Siegel, 2006).

An additional component of Swanson’s study attended to comparing treatment effects of interventions involving direct instruction, strategy instruction, and a combination of direct and strategy instruction. Swanson (1999) found that direct instruction did improve word recognition, and that combined instructional models positively influenced reading comprehension. It is especially important to note that it was not merely the instructional method that made the difference; it was the way in which it was implemented that yielded such power to the treatments. Among the components of strategy instruction that yielded greater effects on students’ reading comprehension were: directed questioning, teacher modeling, group instruction, and the use of strategy cues. Likewise, it was found that sequencing, segmentation, and the use of advanced organizers were important components for word recognition instruction (Swanson, 1999).

In light of these results, a fair question to pose is how teachers develop self-questioning strategies in students with LD who are known to have difficulties with metacognitive processes. Metacognition, simply defined as thinking about one’s own thinking, contributes to the ability of students with LD to actively monitor their reading comprehension when reading (Gajria, Jitendra, Sood & Sacks, 2007; Gersten, Fuchs, Williams & Baker, 2001; Sencibaugh, 2007). Sencibaugh (2007) found that metacognitive instructional approaches such as self-questioning would greatly benefit students with LD. Other characteristics of students with language based LD include difficulties with semantics, detail recall, drawing conclusions, predicting, and making inferences (Sencibaugh, 2007). The most successful instructional approaches for students with LD that explicitly teach such metacognitive strategies include teacher-led questioning and
self-questioning techniques (i.e. activating prior knowledge), text-enhancement strategies (i.e. imagery), and strategies involving basic skills and reinforcement (i.e. repeated reading) (Sencibaugh, 2007). Boulineau, Fore, Hagan-Burke, and Burke (2004) found that explicit story grammar instruction using story-maps improved students’ ability to identify story elements when reading narrative text.

When promising research based strategies merge with classroom instruction, the educator’s job is not over after students have learned the strategies. This is particularly the case for students with LD who have difficulties deciding which strategy to use and when is the appropriate time to use them (Gajria, Jitendra, Sood & Sacks, 2007; Gersten, Fuchs, Williams & Baker, 2001). Reading comprehension strategy instruction must continue with the teacher: adjusting the difficulty level of text, individualizing the strategy for students with feedback and progress monitoring, fading teacher support, and teaching students to generalize the strategy in other contexts and reading materials (Sencibaugh, 2007). Gersten, Fuchs, Williams, and Baker (2001) discuss other difficulties elementary age students with LD had in learning to read. Language deficits prevent students with LD from comprehending text as they struggle with understanding the structure of both narrative and expository text. Story elements, inferred character traits, abstract vocabulary terms, and the numerous structures that expository text can take on are a few of the reading comprehension troubles experienced by students with LD.

**Reading comprehension instruction.** Students with LD require more intensive reading comprehension instruction (Berkeley, Scruggs, & Mastropieri, 2010). Interventions can be put in place to support specific instructional needs of students across different instructional settings. Given that increasingly large numbers of students with LD receive the bulk of their instruction in general education classrooms, they will undoubtedly become a part of the schools Response to
Intervention (RTI) plans. RTI is a model that uses assessment data and progress monitoring information to provide strong early intervention and a more valid identification of students with disabilities (Fuchs & Deshler, 2007; Vaughn & Roberts, 2007). With research based practices with the whole classroom being the focus of Tier I instruction, teachers can use a 10 to 20 week intervention plan (based on student data) for Tier II as students work towards ‘catching up’ with their peers (Vaughn & Roberts, 2007). Since one-on-one instruction is often too expensive for school districts, small groups of students engage in 20-30 minute sessions during Tier II often within the general education classroom (Vaughn & Roberts, 2007). Students who make good progress but who are not ‘caught up’ yet, will continue to receive Tier II support (Vaughn & Roberts, 2007). More importantly, tiered intervention can help to differentiate the amount of instruction needed for diverse learners.

Interventions provide students with additional assistance, instruction and strategies after having accurately assessed student strengths and areas of need (Snow, 1998). Researchers seek to determine the most effective literacy interventions for students who have not yet presented themselves as self-extending, strategic, independent readers of grade level text (Pullen, Lane, & Monaghan, 2004; Vellutino, & Scanlon, 1999). Instruction and interventions that may benefit elementary students with LD include those that are differentiated and responsive. Studies involving teacher corrective feedback and adjustments based on student performance during the intervention have had a greater impact on students’ reading comprehension (Therrien, Wickstrom & Jones, 2006). Responsive teaching during small group and one-on-one intervention is necessary, needed, and were successful in a study conducted by O’Connor, Harty, and Fulmer (2005). One key finding was that tiered intervention helps to differentiate the amount of instruction needed for diverse learners, but it is important to know ‘how much’ intervention to
give and at ‘what time/tier’ (O’Connor, Harty, & Fulmer, 2005). Researchers should be flexible and responsive in adjusting the intensity of interventions according to student need to yield greater effects on student achievement. Attending to how students respond to specially designed interventions allow researchers to know when more intensive interventions are required for specific students (Denton, Wexler, Vaughn & Bryant, 2008; Wanzek & Vaughn, 2009).

The level of intensity and group size is highly dependent on students’ responsiveness to the intervention. Students who have severe reading difficulties and LD need more intensive well-designed, one-on-one interventions. Denton, Fletcher, Anthony, and Francis (2006) found significant growth in decoding skills, fluency, spelling, and reading comprehension for 12 of their 27 participants using a specially designed intensive intervention. It is also essential to include a reading comprehension component in interventions implemented throughout elementary school (Katz, Stone, Carlisle, Corey, & Zeng, 2008; Register, Darrow, Standley & Swedberg, 2007). Sencibaugh (2007) noted a shift in research and practice from skill based instruction involving decoding and vocabulary to cognitive and metacognitive instructional strategies for students with LD. Educators have begun to echo the sentiment that far too many students are becoming decoders and word-callers without comprehending what they have read.

The intervention studies for students with LD found in the literature are as unique as the students themselves. In addition, many of interventions are not solely focused on reading comprehension but have a reading comprehension component to them. The flexibility of tiered intervention allows for many combinations of techniques. One group of researchers used an intervention of code-based skills, fluency, reading comprehension, and English as Second Language practices to improve reading outcomes for CLD students, 75% of whom were Hispanic (Denton, Wexler, Vaughn & Bryan, 2008). This intervention was compared with the
school’s remedial reading or special education instruction. Unfortunately, the effect sizes for all groups were small or negative, and they concluded that middle school students with the most severe reading difficulties may require interventions that were more intense than the ones provided in this study (Denton, Wexler, Vaughn, & Bryan, 2008).

Calhoon (2005) also studied a group of middle school students with reading disabilities and wondered if an intervention focused on phonological skills and reading comprehension would significantly improve students’ reading comprehension, word recognition, and fluency scores. This intervention included both a peer-mediated and teacher-led component. Improvements were shown in letter-word identification, word attack and passage reading comprehension, and researchers believed that the lack of growth in fluency was related to an inability to generalize certain aspects of reading (Calhoon, 2005).

With a focus on primary aged students in 1st through 3rd grades, Wanzek and Vaughn (2009) questioned reasonable expectations for progress for very low responding students. They adjusted the intervention intensity levels and instructional techniques hoping to accelerate growth in reading for three students with disabilities. Interventions for phonics, word recognition, fluency, and passage reading comprehension were provided in small groups of three or six students. Despite this flexible delivery model, only one student showed improvement in oral reading fluency. Interestingly enough, the interventions for the two students who showed little improvement focused primarily on sight words and a language experience approach. Due to the varying levels of responses to the interventions, they concluded that a small sub-group of students will require intensive, on-going interventions.

In a different study, however, tiers of intervention appear to be an effective approach for students with LD and reading difficulties (O’Connor, Harty, & Fulmer, 2005). They found that
additional tiers of intervention are required for students who need more support. Favorable results were found for the more attuned instruction during the teacher directed small group instruction that yielded moderate to high effect sizes for reading comprehension ($d = 0.75$). Students in Tier 2 received small group sessions three times per week with 2-3 students in them, lasting 10 to 15 minutes. Students identified for Tier 3 intervention were individually tutored five days per week for 30 minutes. Outcome data for this study was measured in terms of the percentage of students referred to special education at the end of the study. Eight percent of the treatment group was referred to special education compared to 15% of the control group.

Using a sample of 16 students with LD and 14 students classified as at-risk, Therrien, Wickstrom and Jones (2006) investigated the effects of the Reread-Adapt and Answer-Comprehend (RAAC) intervention. Administered in a pull-out setting by a trained teacher over a four month period, this intervention followed eight instructional steps. Results were promising in fluency and inferential reading comprehension. Fluency improvements were generalized, and small differences were found on reading comprehension subtests between the two groups. It was concluded that more studies were needed with larger samples and longer lasting interventions to see the effects on general reading achievement (Therrien, Wickstrom & Jones, 2006).

One group of researchers compared the effect of their state’s Reading First program on students with LD and their non-disabled peers. Data were stratified for the two groups across a five-year period. Fortunately, all students made significant progress in oral reading fluency, word analysis, listening reading comprehension, and reading comprehension between 2nd and 3rd grades (Katz et al., 2008). The intervention was effective in that students with LD did not fall further behind their non-disabled peers on the Iowa Test of Basic Skills, but these same students made significantly slower progress on DIBELS fluency measures. Ultimately, the Reading First
program was not a strong enough intervention to close the pre-existing gap between students with LD and their non-disabled peers (Katz et al., 2008).

It appears as if studies that focus intently on reading comprehension have more positive effects on students’ reading comprehension. Two studies using intensive interventions had participants who showed significant progress in reading comprehension. Register, Darrow, Standley, and Swedberg (2007) developed a short-term music curriculum to improve reading comprehension and vocabulary. During 45-minute intensive sessions over a 4 week period, these researchers integrated 2-dimensional visual aids, puppets, props and instruments with listening, singing, vocabulary and reading comprehension. This treatment group improved significantly on word decoding, word knowledge and reading comprehension subtests. The treatment was effective for students with LD in reading comprehension.

Both low achieving and high achieving students were the target of an extensive intervention by Guthrie and colleagues (2009). The Concept-Oriented Reading Instruction (CORI) intervention had a significant effect on both groups of students’ reading comprehension when compared to traditional reading instruction (Guthrie et al., 2009). This intervention consisted of guided reading instruction, writing, word recognition, independent reading, reading comprehension instruction, explicit instruction on making inferences, and motivational strategies. The CORI intervention groups scored significantly higher in reading comprehension, ecological knowledge, making inferences, and word recognition with effect sizes ranging from 0.54 to 1.59 (Guthrie et al., 2009). Fluency and motivation were only marginally affected. Even though this intensive intervention was beneficial for students with reading disabilities, it was difficult to pinpoint which part of the intervention produced the effects (Guthrie et al., 2009).
There are distinct differences between the type of instruction that students with LD need, and the quality of instruction these students actually receive. As outlined above, students with LD require and benefit from explicit instruction of reading comprehension strategies that promote both literal recall and higher order thinking. Swanson (2008) conducted a meta-analysis of studies from 1980 to 2005 where reading instruction for students with LD was observed in both resource and general education classrooms. Her findings uncovered a consistent pattern of poor quality reading instruction for students with LD. Specific findings were (1) small amounts of explicit phonics instruction; (2) whole class instruction was used most often; (3) small amounts of time spent on low-quality reading comprehension instruction; and (4) the absence of vocabulary and fluency instruction (Swanson, 2008). Such disparities existed regardless of the instructional setting. In an observational study of reading instruction for students with LD in resource rooms, Swanson and Vaughn (2010) found that students made statistically significant gains in oral reading fluency, indicating the effects of research-based fluency practices found in these classrooms. However, other findings such as low quality reading comprehension instruction, limited amounts of time spent on vocabulary instruction (9.6%), and the common use of a whole group instructional delivery model, were consistent with Swanson’s (2008) previous meta-analysis. Observational studies of reading instruction for students with LD conducted within the past 30 years reveal an overall poor quality of instruction (Swanson, 2008).

**Questioning for Reading Comprehension**

This section of the literature review is dedicated to the act of questioning, and how it is used to aid students’ reading comprehension. The section will begin with the impact of questioning on students’ cognitive processes, and show how questioning practices have changed with time. The focus will then shift to the strategic ways that questioning is used in the
classrooms. Finally, questioning practices and its value for students with LD and struggling readers will be discussed.

The impact of questioning on cognitive processes. Durkin’s (1978) classic observation study did not show positive instructional practices around questioning. Consistent with other studies since then, questioning was used primarily to evaluate student knowledge. In fact, the Initiate-Response-Evaluate (IRE) routine was consistently observed (Durkin, 1978). During this routine, the teacher would initiate by asking a question. A student would be called upon to respond, and the teacher would evaluate the accuracy of that response. This type of routine did not allow for interactive classroom discussions, student generated questions, or even teacher guided supports for reading comprehension. Recent studies, however, show that questioning can have a positive impact on students’ cognitive processes as they comprehend (Hollenbeck, 2011; Lloyd, 2004). Questioning promotes active reading, and can guide students as they construct meaning in their interactions with text. When used as an instructional scaffold, a delicately imposed line of guided questions can help to clear up misconceptions and clarify student thinking (Gaskins et al., 1993; Harvey & Goudvis, 2007; Hollenbeck, 2011). Teacher questioning has also been used to probe for deeper understanding. Consequently, questioning can be used in the metacognitive process as students check in on and monitor their understanding of text (Miller, 2002; Wong & Jones, 1982).

Strategic reading comprehension instruction using questioning. Due to its positive effects on cognition, questioning has been taught to students in classrooms as a strategy to both aid and develop reading comprehension. Both the teacher and the student can ask questions before, during, and after reading (Harvey & Goudvis, 2007; Miller, 2002). Students can be taught how to generate questions, and can be shown the benefits of using questions as they
construct meaning from text (Harvey & Goudvis, 2007; Miller, 2002). Harvey and Goudvis (2007) promote the use of authentic questions during instruction and teacher-student interactions. These questions are distinctly different from questions used to assess or check students understanding. Authentic questions are those which “prompt thinking, cause us to ponder and wonder, dispel or clarify confusion, challenge us to rethink our opinions, lead us to seek out further information, and are subject to discussion, debate, and conversation” (Harvey & Goudvis, 2007, p. 124). This phenomenon is not limited to older readers. Students in primary grades have been taught the benefits of asking questions to help them understand text in school and in other areas of their lives (Miller, 2002). More specifically, they are taught that readers ask questions to clarify meaning, determine the author’s purpose, focus on specific parts of text, speculate about what is read, and locate specific answers in text (Miller, 2002).

Traditionally, teachers have used questions in a summative manner to determine how much and what information students have learned from instruction (Fisher & Frey, 2007; Parker & Hurry, 2007). A common practice used to assess students’ reading comprehension of a reading selection is to have students respond to a list of questions after reading. This is the case whether the assessment is standardized or informal, individually or group administered, or students read text silently or aloud. Fisher and Frey (2007) argue for a more expansive use of teacher questioning. It can be used as both a summative assessment of information learned by students, and formatively to check for student understanding. Checking for understanding can be used to find out what students learned from the lesson, correct misconceptions, and improve learning (Fisher & Frey, 2007). When teachers use questions to check students’ understanding, it can be in the form of response cards, hand signals, developing authentic questions, or specific classroom routines focused on questioning such as Socratic Seminar or Reciprocal Teaching (Fisher &
Frey, 2007). Teachers also use questioning when modeling the role of a strategic reader. They can model the process of asking and answering questions before, during and after reading. This practice, often in the form of think-alouds, is very useful when modeling parts of cognitive reading processes which are implicit and unseen (Harvey & Goudvis, 2007; Ogle, Klemp, & McBride, 2007).

Depending on the researcher or theorist, the types of questions that teachers and students ask have been categorized in different ways. Bloom’s taxonomy (Bloom & Krathwohl, 1956) presents categories of knowledge and levels of cognition. These levels increase in difficulty and go from concrete to abstract (Krathwohl, 2002). Question stems have been developed which parallel the type of cognitive demand placed on the student at various levels on Bloom’s taxonomy. These levels of cognition have since been revised to the following categories: remembering, understanding, applying, analyzing, evaluating, and creating (Krathwohl, 2002). Questions that begin with stems such as “Explain how…”; “What are some possible solutions for…”; “Do you agree or disagree with the statement…? Support your answer.” are those questions that emphasize thinking at the higher levels on the taxonomy (King, 1992, p.113).

Students also engage in higher-level thinking when they respond to text either in writing or orally. Reader’s response brings alive the transaction that occurred between the reader and the text as the reader interprets and interacts with it (Rosenblatt, 1983). Parker and Hurry (2007) identified three levels of reading comprehension questions as: literal or surface questions, inferential or interpretive questions, and evaluation question requiring a personal or emotional response. A common way to categorize types of questions is either as open-ended or closed ended questions. Closed-ended questions yield a brief response, such as word or phrase, while open-ended questions place more of a cognitive demand on students to provide an extended
response (Erodan & Campbell, 2008). Teachers in using high levels of constructivist teaching practices have been found to ask more open ended questions, and as many as three times the amount of questions as teachers using low levels of constructivist teaching (Erodan & Campbell, 2008).

Students, especially those with LD, require explicit instruction in reading comprehension strategies. Students with LD do not actively attend to reading tasks, apply the wrong strategy, or apply strategies incorrectly (Schmidt, 1989). Questioning as a reading comprehension strategy has been shown to help students recall ideas, and assist in activating and focusing attention (Schmidt, 1989). Questions particularly help students with LD be active readers and learners (Wong, 1979). In fact, Palinscar and Brown (1984) identified generating questions as one of four self-regulating strategies. It is important to emphasize the necessity for explicit reading comprehension instruction along with opportunities for student practice, especially since students do not transfer strategies from modeling alone (Parker & Hurry, 2007).

**Questioning for reading comprehension for students with LD and struggling readers.** It is imperative that questioning be used not only to measure but to strengthen reading comprehension for students with LD. Students with LD can be taught to answer and generate questions before, during, and after reading during whole group, small group and individualized instruction (Hollenbeck, 2011; Lloyd, 2004; Wong, 1979). There are few studies which stand out in the literature when it comes to using questioning to support and guide the reading comprehension of students with LD. Two of these studies highlight the impact of questioning on comprehending and interpreting text. The remaining two studies situate teacher questioning within the instructional format of small group instruction. In the two latter studies, instruction was more targeted due to the size of the group and the scaffolds provided to students with LD.
Over 30 years ago, Wong (1979) compared the effects of a questioning condition on students’ ability to retain and recall the main idea of selected passages. The sample included 30 students with LD and 30 students without LD. Students in the questioning conditions had target questions read aloud to them before and after they read a passage. Students in the ‘no questions’ condition had no target questions. Afterwards, all students were asked to recall all they could from the passage. While there was no effect on average achieving students in this study, the students with LD greatly benefited with significant effect sizes on the information recalled (Wong, 1979). It was gathered that the target questions promoted active reading for students with LD by helping them focus on thematically important information and giving them a purpose for reading (Wong, 1979).

Parker and Hurry (2007) replicated Durkin’s classic observation study as they observed the extent that students were helped when interrogating text and actively interpreting what they read. They questioned whether teachers were aware of the type of explicit strategy instruction they provided to students. Classroom observations and teacher interviews revealed a close connection between teachers’ perception of their instruction and their actual instruction. During interviews, about 50% of the teachers mentioned their use of literal questions, fact recall questions, and inferential questions. Evaluative questions were mentioned by 2% of the teachers. Classroom observations also revealed teachers questioning students during 70% of the interactions, and the types of questions asked was consistent with those mentioned during interviews. With regards to explicit strategy instruction, only 3% of the interactions between students and teachers provided explicit instruction in reading comprehension strategies. Observations showed that teachers were not explicitly teaching reading comprehension strategies, and, not surprisingly, students did not apply those strategies. In fact, direct oral
questioning was found to be the dominant strategy for teaching reading comprehension. Even though the range of teacher questioning was wide and appropriate, this practice still placed students in a passive role. Students were not engaged in genuine dialogue and their responses were not extended. Given the similarities between this study and the Durkin (1978) study, not much has changed since then when it comes to observing reading comprehension instruction, and the roles of questioning within instruction.

When teachers habitually ask questions after students read a passage, students begin to view questioning as an assessment or test of knowledge. Lloyd (2004) conducted a study which situated questioning within an instructional framework where students used conversations and small group discussions before and during reading. The goal was to help students understand the value of questions before and during reading. Teachers modeled asking questions when reading aloud to students and had metacognitive conversations with them on why good readers ask questions. Students practiced using questioning as a reading comprehension strategy during guided reading lessons. And students used questions as springboards for discussions during literature circles. Using this gradual release of responsibility model, some of the most productive conversations sprang from student generated questions and wonderings (Lloyd, 2004). During literature circles, students demonstrated the value of questions as they were used to clarify, explain, and add more depth to their interpretations (Lloyd, 2004). Students also used questions to support higher levels of cognition as they examined concepts and themes, and interpreted, evaluated, and synthesized text (Lloyd, 2004).

Cradled within the context of small group guided instruction, Hollenbeck (2011) observed the effect that discussing text has on the reading comprehension needs of students with LD. She found positive effects on reading comprehension for students with LD when teachers
deviated from the teacher’s manual to be more responsive to students reading comprehension needs. Students received live modeling from teachers on how to construct a clear, concise and comprehensive question, were taught how to develop thoughtful questions, and were allowed to practice their questioning skills and active reading (Hollenbeck, 2011). More support and explicit teaching would be required, however, before students with LD became adept at using questioning strategically (Hollenbeck, 2011). At such a level, expert readers would use questions when they do not understand, to make sense of text, and to assimilate new information with old information (Hollenbeck, 2011).

This review of literature situates questioning as a significant part of strategically comprehending text, thinking metacognitively, and deepening understandings of the reading process. Given this study’s interest with how teachers question students during small group instruction, it highlights how questions serve as a scaffold used by teachers to help them construct meaning from text. While some teachers may find it beneficial to teach students the strategy of questioning text or asking questions while reading, students can also learn the importance and significance of questioning as the questions which are directed to them help them better understand and comprehend text.

**Teacher Expertise and Decision Making**

When it comes to educating students, few researchers and policy makers look to those responsible for delivering instruction – the classroom teacher. Education is the foundation on which all careers and occupations are produced to move forward the economic, social, political, and spiritual systems in the United States. In fact, without educators, the United States would not be in a position to compete globally with other nations. Although the United State’s educational system is far from where it needs to be with regards to adequately educating all of our nation’s
students, school districts have at their disposal a critical piece in solving the puzzle of why some students experience great academic achievement and others do not. That critical piece is the teacher.

Inherent to the teacher’s role is the decision making process involved in planning to deliver instruction. Even though it is a common practice of school districts to determine the curricular materials used in classrooms across the United States, one cannot deny the added influence teachers bring to instructional planning as they supplement classroom curricula with: additional materials purchased from teacher’s stores; text checked-out from local libraries; materials purchased to build their own classroom libraries; written, audio and visual resources downloaded from the internet; and classroom kits checked out from local museums to support experiential learning. In fact, numerous support systems, such as teacher discounts at bookstores and free admissions to museums, have been set up to support teachers as they enhance school district curricula.

One piece of the process teachers engage in to supplement school curricula involves the selection of text for small group instruction. Teachers search for text that will support students’ academic achievement, because they recognize that not all students learn the same way, process information identically, bring with them comparable early literacy experiences, or comprehend district curricula at its set level of difficulty. Supplemental text is often used during small group instruction, after the teacher has used the district curricula to instruct the whole class. Researchers, along with district policy makers, support this type of supplemental instruction. Some school districts require teachers to use data to provide intervention during small group instruction for students not meeting state standards. Schumm, Moody and Vaughn (2000) make
a case for the using small group instruction as a strategy for responding to the needs of students with learning disabilities and severe reading problems.

Teacher knowledge. One critical element of teaching students with LD to read is teacher knowledge (Fuchs & Vaughn, 2012). Effective teachers of reading are those that explicitly teach and model comprehension strategies, monitor individual students’ use, and help students develop into strategic readers (May, 2011). Unfortunately, the type of expertise needed by this type of reading teacher is pushed aside with increasingly popular scripted curricula and school reform mandates to implement a specific set of instructional materials and methods. Many instructional programs include ready-made lesson objectives, expected learning outcomes, teacher scripts, and corresponding assessments. While scripted curricula are aligned to state standards and have an embedded scope and sequence of skills and strategies, teachers are typically left out of the decision making process. Furthermore, teachers are not called upon to use the content and pedagogical knowledge learned during their pre-service experiences.

An extensive body of recent research stated that an overwhelming amount of teachers and school administrators are not qualified to provide the types of high quality literacy instruction noted in the NRP (2000) report (Joshi et al. 2009a; Joshi et al. 2009b; Moats, 2009; Lyon & Weiser, 2009; Leko & Brownell, 2009). In order for general and special educators to learn ways to differentiate instruction for students of diverse ability levels, professional learning at both the pre-service and in-service levels is needed (Fuchs & Vaughn, 2012). Knowledge of how students learn to read and read to learn and engagement in recursive and reflective teaching and learning cycles is a starting point (Jeffries & Maeder, 2009). Professional development for teachers, administrators, and teacher educators, along with intensive and realistic field experiences for
beginning teachers are also essential (Heldfeldt et al, 2009; Lesley, Hamman, Olivarez, & Button, 2009).

Teacher knowledge – whether gained during pre-service or in-service years – continues to be an important part of the instructional process (Shulman, 1986) as teacher understandings change with time and experience (Theriot & Tice, 2009). Coursework can be one way that teachers learn to plan and implement instruction that is responsive to students of differing ability levels. In a discussion of teacher knowledge, expertise and developing reading proficiency, Lyon and Weiser (2009) state that teachers and school administrators are not knowledgeable enough to teach scientifically based reading instruction. They contend that to teach reading effectively, teachers need to “ensure that students learn and apply phonemic awareness and phonics concepts rapidly in text, relate what is read to their background knowledge and their lexicon (vocabulary), and deploy active strategies to derive meaning from print” (Lyon & Weiser, 2009, p. 476). Moats (2009) agrees that teachers need to be able to analyze language properly in order to systematically teach phonics. Teaching students to read, particularly those with a disability, is a complex process requiring specialized knowledge and instructional techniques (Guthrie et al., 2009; Moats, 2009; Reid, 1998).

Along with pedagogical and content knowledge, teachers must possess knowledge of child and adolescent development. This knowledge represents the characteristics of learners progressing along a continuum of typical development, and serves as a backdrop against which teachers can compare the abilities and progress of their current students. Characteristics of a typically developing learner include knowledge of Piaget’s stages of cognitive development and Erikson’s stages of psychosocial development. It is essential for teachers to understand that as students mature, their cognitive understandings evolve from the concrete to the abstract. In order
for students to grow, teachers must be adept in applying Vygotsky’s theory of learning within a zone of proximal development. Knowing that learning involves students gradually becoming more proficient at tasks as they progress through developmental stages, can guide teachers in adapting instruction to support student growth along a continuum (Fountas & Pinnell, 2006; Routman, 2008). Examples of literacy learning along a continuum include the developmental stages of spelling where students progress from the pre-phonetic stage to the derivational relations stage (Bear et al., 2000), and the developmental stages of becoming a proficient reader progressing from an emergent to an advanced reader (Fountas & Pinnell, 2006).

It is essential that teachers be familiar with transactional processes that take place between the reader and the text, and understand that interactions amongst the reader, text, and context for learning change the reader (Rosenblatt, 1986). Rosenblatt (1982) maintains that “reading is a transaction, a two-way process, involving a reader and a text at a particular time under particular circumstances” (p. 268). Teachers often select text with a particular purpose in mind for how this text will teach students a particular concept or lesson. Once the teacher releases that text to the student, and the student experiences that text for him/herself, there is a transaction that takes place elusive of the teacher and intimate to the text and the student. It is up to the teacher to equip students with different ways to experience that text (Rosenblatt, 1982), carefully observe students’ responses to the text, and know how to fluidly move in and out of that transaction of reader and text in ways supportive to students’ comprehension. This transaction is different using the same text for different students or when students interact with the same text at different time periods. Many people experience text differently when read a second time after having had different life experiences. Rosenblatt (1982) attributes these changes to experience, both as individuals and when interacting with others. Experiences can
cause us to connect to text during the transactional process in ways where our experience enhances the text while, at the same time, the text enhances our experiences due to the aesthetic stance taken when reading (Rosenblatt, 1982). In addition to experiences with text and language that students bring from home, teachers can create experiences where students co-construct knowledge in their transactions with text (Smagorinsky & O’Donnell-Allen, 1998). Teachers ought to use what they know about their students to guide the types of responses, reactions, or questions they elicit from students after the reading event. Knowing how to navigate this very complicated process is crucial.

The learner, the task, and the text features were important parts of the instructional design process noted by Jitendra and Gardill (1996). Prior to delivering instruction, teachers must assess students’ background knowledge (which affects their ability to connect to and learn new information), their component skill knowledge of strategies for decoding, semantics and syntax, and their knowledge of using comprehension strategies such as predicting (Jitendra & Gardill, 1996). Considering the task involves the teacher understanding how students respond to what they are asked to do during instruction. Student familiarity with the task and the type of response requested (oral or written) are important factors to consider. Finally, in considering text features, Jitendra and Gardill (1996) caution teachers to carefully note the text’s length and readability, sentence structure, and amount of extraneous information, since these text characteristics can be challenging to some learners.

Teachers engage in a decision making process for curriculum at formal, symbolic, and societal levels (Gay, 2002). According to Gay (2002), when analyzing the multicultural strengths and weaknesses of instructional materials through the formal curriculum, culturally responsive teachers “should focus on the quality, accuracy, complexity, placement, purpose, variety,
significance, and authenticity of the narrative texts, visual illustrations, learning activities, role models, and authorial sources used in the instructional materials” (p. 108) It is also important for teachers to consider the values and messages conveyed through the symbolic curriculum found in trade books, bulletin board decorations, and other images (Gay, 2002). Finally, in text selection, Gay (2002) cautions teachers to be aware of the inaccurate or prejudicial messages conveyed through the societal curriculum found in newspapers, magazines, television programs, and movies. As students progress through elementary school and develop a larger societal awareness, such inaccurate texts could be empowering when culturally responsive teachers engage students in strategies such as Questioning the Author (Beck et al., 1997) requiring them to use their prior knowledge to synthesize and construct new knowledge. A part of teaching students to become literate involves their ability to critically evaluate the text they read, so text selection can also involve students analyzing the validity, reliability and logic of what they read (Ladson-Billings, 1992). Certain texts that students encounter can have a lasting effect throughout their lives. Tatum (2005) refers to this phenomenon as textual lineages. Teacher decision making processes are instrumental in providing responsive instruction (Tatum, 2009). Anchored in clearly defined platforms and focused with overarching essential questions, powerful instruction begins with identifying texts that engage learners and focus on resilience and self-determination (Tatum, 2009).

As noted earlier, students in the United States are diverse. When instructing academically diverse students – particularly those with LD – educators engage in a thoughtful process considering the multiple aspects of the learner, the lesson, the text, and lesson objectives and outcomes (Paterson, 2007; Sperling, 2006). During this multifaceted process, teachers consider: the usefulness of text in achieving learning objectives (Rickford, 2001), ways to fold in new
content using students’ prior knowledge, culturally responsive pedagogy that engage learners (Ladson-Billings, 2001; Gay, 2002), specific knowledge of individual learners (Paterson, 2007), and instructional scaffolds that foster student learning (Frey & Fisher, 2010; Reid, 1998; Rodgers, 2004). Such instruction does not occur in a vacuum, but is interdependent upon characteristics of teacher disposition such as care and persistence (Murray & Naranjo, 2008; Jones, 2011; Shulman, 1986).
Methodology

The purpose of this study was to identify ways that general education teachers use reading comprehension questions as a tool during small group reading instruction where students with LD are included. More specifically, this study sought to determine: (1) how often general educators ask reading comprehension questions to help students understand fictional narrative text, (2) what types of reading comprehension questions general educators ask to help students understand fictional narrative text, and (3) how general educators follow-up when students’ responses to their reading comprehension questions are incorrect or incomplete.

This chapter contains: an explanation of the research approach, the process for recruiting participants, a description of the study’s setting and participants, the tools and procedures used for collecting data, procedures for analyzing data, and steps for establishing reliability.

Research Approach

Qualitative research methods were chosen for this study because of the researcher’s interest in the intriguing and often elusive phenomena of cognitive processing, specifically, how teachers use questions to facilitate students’ reading comprehension processing. While the frequency that teachers ask reading comprehension questions can be captured with a quantitative tally, framing the study within the context of teacher-student interactions during small group reading instruction allows the researcher the opportunity to analyze the type of teacher questioning in more depth and to illustrate how such practices may support students’ comprehension of fictional narrative text. “Qualitative methods permit inquiry into selected issues in great depth with careful attention to detail, context, and nuance” (Patton, 2002, p. 227).

There are as many as 26 different types of qualitative research methods practiced in the fields of education and psychology (Mertens, 2005). Regardless of this quantity or how these
methods may be categorized, they all share some basic characteristics. Qualitative research methods (1) allow phenomena to be studied in depth, (2) use multiple methods in inductive and holistic ways, (3) occur in natural settings, (4) rely on the researcher to be the data collection tool, and (5) allow descriptive accounts to be made (Denzin & Lincoln, 1994; Freebody, 2003; Mertens, 2005; Patton, 2002). In addition, there are certain roles that are characteristic of qualitative researchers. They have been described as witnesses (Goffman, 1989), storytellers (Wolcott, 1994), problem solvers in concrete situations (Denzin & Lincoln, 1994), and agents of educational and social change (Freebody, 2003; Rogers, 2011). Fieldwork, therefore, becomes an invaluable tool as the qualitative researcher fulfills these roles. Goffman (1989) describes fieldwork as a researcher being right there with a set of individuals “as they are responding to what life does to them” (p. 125). To this end, qualitative research methods are a “means of recognizing or capturing the unpredictability, idiosyncrasies and quirkiness built into the experiential life-world of human beings” (Freebody, 2003, p. 37).

**Observations.** One type of commonly used qualitative research method is observation. The purpose of observation is “to take the reader into the setting that was observed” describing for the reader what occurred and how it occurred (Patton, 1987, p. 12). Observations allow data to be collected as they happen (Patton, 2002). In addition, descriptive, verbatim transcriptions provide a type of inherent validity (Freebody, 2003). Intrinsic to the observational process is the notion of getting into an observational setting, negotiating that space in order to collect data, and making a smooth transition to exit the setting (Adler & Adler, 1994; Goffman, 1989; Patton, 2002). Many methodologists also include reflection and data analysis in the stages of observation (Adler & Adler, 1994; Delamont, 2004). The extent to which a researcher participates in the setting ranges in degree from nonparticipation (such as collecting data through videotaping) to
complete participation as a natural participant (Mertens, 2005; Schatzman & Strauss, 1973). There is a balancing act involved in the art of observation as researchers negotiate that space. Goffman (1989) warns the observer to practice both strategic and moderate habits, being careful not to over-do it or under-do it. In the same way, Patton (1987) describes the researcher’s role in participant observation as developing an insider’s view of what is happening from the position of an onlooker who does not disturb the dynamics of the participants or program.

Classroom discourse. Another specific type of qualitative research method in the field of education is classroom discourse analysis. The discourse, or talk, that occurs in the classroom serves a powerful function. It is the means by which students learn communication patterns and forms, curricular content, societal structures, functions of schooling, and roles of power and accountability (Cazden, 1988; Freebody, 2003; Gee, 2011). At its lowest level, discourse is “an act, word, or collection of words signaling an interaction” (Freebody, 2003, p. 95). From there, interactions combine to move along a continuum of turn-taking, responses, transactions (i.e. discussions), and classroom lessons (Freebody, 2003).

Participation in classroom discourse is both the means and the outcome of learning (Freebody, 2003). Previous observational studies in this area reveal the typical pattern of Initiation – Response – Evaluation (IRE) in classrooms where the expert (teacher) prompts or questions the novice (student), listens to the novice’s response, and gives an evaluative response to the novice (Cazden, 1988; Freebody, 2003). In a recent study, a more intricate variation to the IRE discourse pattern was found including teacher scaffolds such as prompts, cues, models, and explanations (Frey & Fisher, 2010).

It is quite typical that field research in the social sciences includes strategies for watching, listening, and recording (Schatzman & Strauss, 1973). To that extent, the qualitative
research methods used to collect data for this study include classroom observations, audiotaped classroom discourse, and field notes. This study relied heavily on collecting data as they occurred naturally within the classroom setting. Teachers gave permission to have their small group lessons audio-taped in order to capture firsthand the frequency and types of questions asked during small group reading instruction. Direct observation and verbatim transcriptions of classroom discourse gave firsthand data not reliant upon self-report or perceptions of instruction, and field notes provided a rich contextual background of the nuances and intricacies of each classroom studies. Frey and Fisher (2010) observed 18 teachers in kindergarten through sixth grade, and found that teachers use prompts, cues, questions, and direct explanations or modeling to scaffold students’ understanding. These rapidly occurring cycles began and ended with the teacher posing a question. Teachers showed flexibility as their responses were adjusted among the four categories depending on how students responded to their questions (Frey & Fisher, 2010). This study replicated the methods used by Frey and Fisher (2010) while observing general education teachers providing small group reading instruction to groups that included a student with LD. Based on approval restrictions, the students with LD included in the small group reading lessons were not identified.

**Recruitment Process**

A small, purposefully selected, convenience sample of five teachers was recruited for this study. Sample sizes used in classroom observation studies of reading instruction can range from a few participants to hundreds of participants depending on the nature of the study and its funding sources. In a meta-analysis of observation studies over the past 25 years, Swanson (2008) reported a much smaller range of participants used. Of the 21 studies synthesized in this
analysis, nine studies used 14 or less participants. Therefore, small sample sizes are typical in studies focused on reading instruction for students with LD.

Purposeful samples are typically used in qualitative research – not to generalize findings to larger populations – but to study more in depth a phenomenon of interest (Patton, 2002). The researcher was interested in the reading comprehension questioning practices of general education teachers who provide reading instruction in an inclusive classroom to African American students with LD in 4th or 5th grades in a large urban school district. Participants were recruited through direct contact at their schools, which are located in a large metropolitan area. Schools in the recruitment pool needed to meet the following inclusionary criteria: (1) 51% or more of the students are African American and (2) 51% or more of their student population qualify for free or reduced lunch. Seven schools, that the researcher had previous contact and interactions with the administrators, met these criteria and served as the potential recruitment pool. The researcher had no previous contact, interactions, or working relationships with any of the teachers who would be approached to participate in the study. Letters of support and approval were obtained from the school district and school administrators. These letters of support, along with this study’s data collection tools, were submitted to the Institutional Review Board for approval (see Appendix A). Once approval was received, administrators were then contacted one by one to begin the recruitment process. The goal was to enroll the first five teachers who met eligibility criteria. If not enough teachers agreed to participate from the first school then the next school administrator was contacted and the following process was initiated. After administrators were contacted recruitment efforts focused solely on teachers, starting with one school and moving to the next until the desired amount of teachers were recruited. Flyers were placed in teachers’ mailboxes, located in the main office of the school. The researcher requested time
during a staff meeting to speak with teachers about the scope of the study and request volunteers. Teachers who expressed interest in the study met with the researcher after school hours to complete a Teacher Screening (see Appendix B). At the first recruitment site, two of the teachers who were interested in the study were not selected, because their students with disabilities did not have LD. Recruitment efforts stopped after the second school since recruitment efforts there yielded enough participants for the study. Each teacher who was interested in participating in the study at the second school met the inclusionary criteria, and all five participants across both schools signed consent forms (see Appendix C). Teachers who participated in the study received $50 for personal use and $200 for classroom materials.

**Setting and Participants**

Two public elementary schools in a large urban Midwestern school district served as the setting for this study. Both schools had an African American student population of 95%. The schools’ special education populations ranged from 6% to 15%, and the percentage of students who qualified for free or reduced lunch ranged from 75% to 95%. Based on state standardized tests, 80% of the students in third through eighth grade either met or exceeded state standards in reading at both schools.

There were five teacher participants in this study, each with less than ten years teaching experience (mean = 6 years of experience) (see Table 1). Each teacher (1) instructed students in 4th or 5th grade; (2) used small group instruction to teach reading to groups of eight or fewer students; and (3) had at least one student with LD in one of their small reading groups. Two participants taught 4th grade students, and three participants taught 5th grade students. Teachers reported using small group instruction to teach reading four to five days per week. The
percentage of students with LD included in their classrooms ranged from 10% to 31%, and the average class size was 26 students.

**Instruments**

**Teacher questionnaire.** After teachers signed consent forms to be a part of this study, teachers completed a questionnaire. The researcher orally read the questions to each teacher and typed their responses directly into a laptop computer. The questionnaire was used to collect teacher demographic data (teaching experience, certifications, educational background), general information on the students in the classroom (number of students, general ability levels of students), and summary data on the students with LD included in their classroom (student’s age, ethnicity, strengths and areas of concern, interests, general level of academic progress) (see Appendix D). Given that each teacher’s small group instructional practices differed across settings, teachers were also asked about their process for grouping students.

**Classroom observation.** Each teacher was observed twice providing small group reading instruction using the Classroom Observation tool (Appendix E), and a schedule for classroom observations was set up at the convenience of the teachers. This yielded a total of 10 observations. The length of each small group reading lesson ranged from 16 to 28 minutes (see table 2). Each teacher was observed twice over the course of ten weeks with at least one week in between the first and second observations. Observations in four of the five classrooms occurred with at least two weeks between each visit; however scheduling conflicts in the 5th classroom required observations to be scheduled across a four-week period. Across both observations in the three 5th grade classrooms, the same group was observed in each classroom. Due to the scheduling conflicts, observations in the 4th grade classrooms were spread out across two student assessment periods, during which time teachers used data to change the groups’ make-
Table 1

*Teacher Demographics*

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Alyssa</th>
<th>Brooke</th>
<th>Caitlyn</th>
<th>Danielle</th>
<th>Eve</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years of Teaching Experience</td>
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<td>2</td>
<td>3</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Degree</td>
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<td>B.A.</td>
<td>B.A.</td>
<td>M.A.</td>
</tr>
<tr>
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<td>Elementary Education</td>
<td>Elementary Education</td>
<td>Elementary Education</td>
<td>Elementary Education</td>
</tr>
<tr>
<td>Endorsements</td>
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<td>ELA &amp; Science</td>
<td>Social Science</td>
<td>None</td>
</tr>
<tr>
<td>Reading Certificate or Endorsement</td>
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<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>National Board Certification</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes (Literacy)</td>
</tr>
<tr>
<td>Grade Level</td>
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<td>4&lt;sup&gt;th&lt;/sup&gt;</td>
<td>4&lt;sup&gt;th&lt;/sup&gt;</td>
<td>5&lt;sup&gt;th&lt;/sup&gt;</td>
<td>5&lt;sup&gt;th&lt;/sup&gt;</td>
</tr>
<tr>
<td>Class Size</td>
<td>16</td>
<td>26</td>
<td>25</td>
<td>30</td>
<td>29</td>
</tr>
</tbody>
</table>

up. Using the criteria that the group must have at least one student with a learning disability and focus on comprehending fictional narrative text, the teacher determined the group that was to be observed. Fictional narrative text was selected because it is a genre commonly used during small group reading lessons in elementary school classrooms, and its structure and text characteristics lends itself to a broad variety of questioning types and comprehension strategies. Questioning
that supports students comprehension of fictional narrative text vastly differs from the type of questioning needed to help students comprehension the factual content, text features (e.g., headings, ), and text structures (e.g., compare and contrast, cause and effect) of informational text (Bryant, Ugel, Thompson, & Hamff, 1999).

The observation tool was both structured and open-ended, and consisted of three main sections: logistical information, the physical environment, and open-ended field notes. Observations ranged from 30 to 45 minutes in length. This time included small group reading lessons lasting 15 to 30 minutes, plus time to record logistical and classroom environment data. Teachers selected which group would be observed using the criteria that each group needed at least one student with LD and the lesson focus must be comprehension instruction of narrative text. The logistical data section included information such as the number of students with and without LD, and the lesson’s start and ending times. The physical environment section included a description of how the classroom furniture was arranged, and a list of the instructional charts posted in the environment. The open-ended section of the observation tool contained space for field notes to capture both verbal and non-verbal interactions during the small group reading instruction. Verbal interactions included teacher prompts, cues, questions, or modeling and explanations (Frey & Fisher, 2010). Non-verbal interactions captured included gestures, pointing, and facial expressions. The open-ended section for field notes contained boxes to collect data every five minutes. Within each five-minute box, the actual time was recorded at the beginning of each minute using bullet points. Observer comments (research memos) were recorded both during the observation and within 48 hours of each observation, and were placed in a second column, parallel to the field notes. The purpose of these comments was to record the observer’s personal, reflective, analytical, or hypothetical notes or memos (Klingner, Sturges, &
Harry, 2003). Comments recorded during the observation were prompted by the researcher’s impression of the climate of the classroom, questions asked by teachers, instances of students attending to the researcher, or other behaviors that stood out. Comments recorded after the observations were prompted by patterns noticed in teacher behavior, and the researcher’s overall thoughts on the observation.

The researcher piloted the classroom observation tool in three different elementary classrooms during small group reading instruction. During this time, the researcher observed and recorded field notes and notes on the: instructional charts, physical arrangement of the classroom, and details of the lesson. To determine content validity, each teacher received a summary of the classroom observation to review. They were asked to highlight phrases or sentences that they thought did not accurately reflect the lesson. None of the teachers highlighted anything on the report. They each commented on how unfocused or inattentive individual students were and displayed a bit of anxiety about not redirecting students. The classroom observation process was then modified based on recommendations and responses from the teachers and the researcher.

**Audiotaped classroom discourse.** In order to capture verbal interactions between teachers and students, classroom discourse during small group reading instruction was audiotaped. A small digital voice recorder was placed on the table in front of the teacher during each teacher-led small group reading lesson. The researcher transcribed data from the voice recorder verbatim. To check for accuracy, a retired teacher and administrator randomly selected three of the transcripts, to check the accuracy of the transcription against the audio recording. Overall, the transcripts were determined to be accurate. Minor errors that were corrected included replacing similarly sounding words or phrases within the transcript.
**Stimulated recall interview.** Stimulated recall interviews have been used in educational settings to gain insight into the types of questioning strategies used by instructors and the ways those strategies helped students process information (Barnum, 2008). Vikstrom (2008) used stimulated recall to study teacher competence and student learning. Stimulated recall is a qualitative research method that involves recording an event and using the recording at a later time to allow participants an opportunity to discuss the event (Lyle, 2003). The audiotaped or videotaped event serves as a stimulus to help participants relive and review the event to help reveal the thought processes that occurred during the event (Rowe, 2009). Stimulated recall was used in this study to gather insight into the thought processes and instructional decisions of teachers as they helped students comprehend text during small group reading instruction. Probes for this study’s stimulated recall interview mirror questions found in previous studies of teacher decision making, cognitive processing, and student learning processes (Barnum, 2008; Edwards & Marland, 1984; Rowe, 2009; Stogh & Palmer, 2003; Vikstrom, 2008).

After the second observation, each teacher met with the researcher immediately after school for a stimulated recall interview. Each interview lasted approximately 45 to 60 minutes. During this interview, the audiotape of the second small group reading lesson was played and paused at various points by both the teacher and the researcher. Before beginning the interview, the researcher stated that the purpose of the interview was to have the teacher explain the rationale for instructional decisions made during the small group lesson to help students comprehend text. Also at this time, teachers were shown how to pause the audio recording and encouraged to do so any time during the interview to share their thoughts on the lesson. The audiotape was paused by the researcher or the teacher throughout the interview. When the researcher paused the recording, she posed prompts from the interview protocol. When the
teacher paused the recording, she spoke freely of her thoughts on the lesson. No more than 2-3 minutes passed in between stopping points made by either the teacher or the researcher. The researcher also stopped the recording at predetermined stopping points, representing times when teachers helped students comprehend text in different ways (instructional charts, activating prior knowledge, asking comprehension questions, etc.).

The interview tool consisted of a standard introduction that was stated at the beginning of each interview, and a series of prompts. The standard introduction included statements of the purpose and procedures for the interview. The goal of the stimulated recall session was for teachers to reflect on and describe the rationales for instructional decisions made during the lesson. When the teacher did not give elaborate descriptions of her thought processes, the researcher used prompts to elicit responses from the teacher. The prompts include questions aimed at helping the teacher reflect on the instructional decisions made during the small group reading lesson. The questions focused on teachers’ thoughts about: the students’ understanding of the text, students’ understanding of the comprehension strategy taught during the lesson, and the questioning strategies used. Appendix F lists prompts that were used during the stimulated recall interview.

Procedures

After approval to conduct this study was obtained by the researcher’s Institutional Review Board, teachers who met the inclusionary criteria were recruited to participate in this study. Recruitment and subsequent data collection took place on an ongoing basis as teachers expressed an interest in being a part of the study and met eligibility criteria. Upon agreeing to participate, the researcher met with each teacher to complete informed consent procedures, the Teacher Information Questionnaire, and discuss data collection procedures for the study.
Teachers were asked to share the days of the week and time of day that they have small group reading instruction. The researcher and participants scheduled the two classroom observations at this time, although due to conflicts that emerged in the schedule as the study progressed additional observation dates and times were later scheduled. Teachers were emailed three days before each scheduled observation for background information on the lesson (number of students in the group, lesson focus, expected student outcomes, title and level of the text to be used, and any other instructional materials that were to be used). A reminder email was sent the day before each scheduled observation. Data were collected for each participant across a two to four-week period.

Classroom observations focused on small group reading lessons that focused on fictional narrative text where at least one student with LD was included. On two separate occasions, teachers were directly observed and audiotaped by the researcher (n=10). The purpose of the direct classroom observations was to gain insight into the teacher-student interactions and classroom context. This additional information helped to contextualize the tape-recorded interactions of classroom discourse (Perakyla, 2004). During both of the classroom observations, a digital voice recorder was placed on the small group reading table in front of the teacher. Small group reading instruction, a typical classroom practice for these participants, was observed. This involved the teacher guiding a small group of students through the process of comprehending narrative text selected by the teacher.

After the second classroom observation, the teacher and researcher met after school for a stimulated recall interview. At the beginning of the interview, a standard introduction was read to each participating teacher stating the purpose and procedure to be followed. The purpose of the stimulated recall interview was to provide teachers with an opportunity to reflect on the lesson
and the instructional decisions made throughout the lesson. Teachers also had an opportunity to describe their thoughts, reactions, and/or feelings about the lesson. Using the audiotape of the second small group reading lesson, both the teacher and the researcher paused the tape at various points. At each stopping point, the teacher was prompted to describe the rationale for the instructional decisions that she made at the time. Teachers were given the opportunity to pause the tape at whichever points she chose. However, in the event that a long period of time passed, the researcher paused the tape and asked the teacher a question relevant to the lesson.

**Data Analysis**

Data analysis in qualitative research is often a recursive process where the researcher engages in multiple, non-sequential stages at one time (Perakyla, 2004). Data analysis processes generally involve combinations of the following steps: collecting, reviewing, organizing, categorizing, searching for recurring patterns, theorizing, and describing (Freebody, 2003; Langer, 1985; Huberman & Miles, 1994; Mertens, 2005; Patton, 2002; Perakyla, 2004; Strauss & Corbin, 1994).

Consistent with qualitative methodology, constant comparative analysis (Strauss & Corbin, 1994) is a qualitative technique used to find recurring patterns across and within sources of data. For example, Dooley and Assaf (2009) compared the beliefs and practices of two teachers towards literacy instruction within the context of high-stakes testing. Instead of comparing one teacher with the other, Dooley and Assaf (2009) looked for patterns that emerged in the data across the cases. Given that instructional practices differ amongst educators, and an individual’s teaching style has foundations in his/her disposition, pedagogical knowledge, and content knowledge level (Feinman-Nemser, 2008; Shulman, 1986), it is difficult to standardize the art of teaching. While experiments have been done to determine which instructional practices
yield greater academic success, the questions in this study are not focused on student achievement outcomes or standard approaches to teaching. As classrooms in the United States continue to become more diverse and inclusive, it is important to explore and learn more about supportive instructional practices.

Data were analyzed in this study using: descriptive statistics on the overall frequency of questions and the frequency of the types of teacher questioning, line by line analysis of classroom discourse for teacher responses to students’ incorrect or incomplete answers, and analytical descriptions of classroom contextual information obtained from field notes. Data analysis of field notes had its foundation in preliminary findings from observer comments noted during the data collection phase.

**Teacher questionnaire.** Responses to the teacher questionnaire were analyzed after being entered into a Microsoft Excel spreadsheet. These data were also used to generate a chart of teacher demographic data. The researcher highlighted words, phrases, and quotes in the teacher responses on the spreadsheet in order to summarize and report data from the questionnaire about the academic progress, interests, and concerns of students with LD included in the teachers’ classrooms. Such information was used to provide additional context for teacher responses during classroom observations and the stimulated recall interview. The teacher questionnaire also generated important information on the grouping practices of teachers in this study.

**Classroom observation and classroom discourse.** Field notes for classroom observations were inputted directly into a laptop computer on the field note template. When the researcher transcribed the audiotaped lessons, corresponding field notes were merged into one document. Consequently, data from field notes were included in the analysis of audiotaped
classroom discourse. Field notes on the classroom layout and instructional charts provided additional context for the findings of this study. Field notes taken during the actual small group reading lesson provided context for the audiotaped discourse and included information such as which student was speaking, facial expressions of the teacher and students, gestures, pointing, and other non-verbal movements. All data were organized and coded by hand. Data were coded for the number of reading comprehension questions asked, the type of reading comprehension question asked, and the type of teacher response to students’ incorrect or incomplete answers to each reading comprehension question asked.

The following steps, recommended by Freebody (2003), were used to analyze the audiotaped classroom discourse. During the first step of analysis all questions asked by the teachers were identified. Once identified each question was reviewed to determine if the question was a comprehension question or not. Classroom discourse that occurred both before and after each identified comprehension question was analyzed to identify the category each comprehension question belonged to. Specific episodes that included a students’ incorrect or incomplete answer to teachers’ comprehension questions were selected to determine the frequency and type of teacher responses. Audiotaped classroom discourse was also reviewed to gauge the percentage of each small group reading lesson spent focused on comprehension instruction. During this process, discourse for each minute represented on verbatim transcripts were read and charted. Percentages of comprehension instruction were tallied for each minute that teachers: modeled thinking and how to chart text clues; engaged students in discussing the meaning of text, vocabulary words, or key concepts; asked students reading comprehension questions; and responded to students incorrect or incomplete answers to reading comprehension questions. Time spent orally reading or helping students to decode text and questioning involving
logistical directives (e.g. Where is your pencil?) were not included in the percentage of time spent on comprehension during small group instruction.

Coding systems for each of the research questions were developed for both the audiotaped classroom discourse and the field notes from classroom observations. As data from audiotaped discourse was transcribed, field notes were merged into the transcribed document. Engaging in a process of analytic induction (Huberman & Miles, 1994; Strauss & Corbin, 1990), this study’s coding system followed a layered approach. Pandit (1996) explained this process using three types of coding as: open coding which generates labeled and categories; axial coding which allows the researcher to make connections between categories and subcategories; and selective coding which integrates the categories. In this study, classroom observation data were openly coded both using a priori and emergent categories. Axial and selective coding processes helped to determine broad categories, patterns, or themes that emerge of teacher questioning practices and classroom interactions.

The first step in the coding process involved identifying questions and reading comprehension questions. A second coder, a doctoral student in reading education, was used to identify each question in 40% of the transcripts, and determine which identified question was a reading comprehension question. Transcripts were coded separately and disagreements were discussed to arrive at a consensus of what was to be counted as a reading comprehension question. Questions were defined as an inquiry made by the teacher to a student or group of students for the purpose of obtaining a response, information, or to check for understanding. Characteristics of a question include a statement beginning with a question word (who, what, when, where, why, how), or a statement ending with a word of inquiry (okay, right).
Comprehension Questioning

Reading comprehension questions were defined as a question which checks students’ understanding of the text, knowledge of the content, or metacognitive uses of specific reading comprehension strategies used to process text. The following types of questions were coded as reading comprehension questions. Questions that focus on: a specific comprehension strategy or literary element (i.e. main idea, author’s purpose, text support), check understanding of the text (i.e. So what’s happening here?), key concept words inherent to the meaning of the text (i.e. graphic organizers, Venn diagrams), vocabulary words (i.e. soaring, tropical cyclones), and building or activating prior knowledge. The focus of reading comprehension questions is to help students construct meaning from text. Questions that assist students in decoding words were not the focus of this study, and therefore, were not counted as reading comprehension questions. However, questions that prompted students’ understanding of vocabulary words and major concepts related to the text were counted as reading comprehension questions.

Descriptive statistics were used to enhance the narrative account of the frequency and type of reading comprehension questions asked during small group instruction. When generating a frequency count of reading comprehension questions, there were times when the same question was repeated without time in between each question to allow for a student response. Since this occurred infrequently, each reading comprehension question was counted with a frequency of one. More commonly found were instances where a comprehension question was rephrased in a different way. Such instances were also each given a frequency count of one since they were rephrased in a way that required students to access or think about additional information.

The comprehension questions asked during this study were categorized using a priori codes found in the Frey and Fisher (2010) study that identified the instructional moves teachers made during small group instruction. A few adjustments were made to the categories based on
the themes that emerged in this study’s data and resulting from reliability coding of questions found in the classroom transcripts. The seven reading comprehension codes used were: literal elicitation, inferential elicitation, elaboration, clarification, divergent, heuristic, and activating prior knowledge.

Once all the comprehension questions were identified, each was coded to determine the type of comprehension question. Afterwards the episodes containing reading comprehension questions and teacher instructional moves to students’ incorrect or incomplete answers were selected for closer examination. These episodes were those in which teachers used questioning to assist students’ reading comprehension processes. Specific details from the selected episodes were examined to generate themes, patterns, and additional codes for the ways teachers responded to students’ incorrect or incomplete answers. Finally, the patterns were elaborated upon using comparative data collected during classroom observations and other episodes. This type of inductive reasoning has methodological parallels to Glaser and Strauss’ (1967) grounded theory approach. Using a priori codes for prompts, cues, modeling, and explanations, transcripts of classroom observations and audio-taped classroom discourse were analyzed for the responses teachers gave when they followed-up to students’ incorrect or incomplete responses. Teacher responses were classified as instructional moves. Teacher instructional moves are quickly occurring, complex instructional decisions requiring teachers “to draw on curricular and developmental knowledge to apply scaffolds that guide” student learning. (Frey & Fisher, 2010, p. 85).

**Stimulated recall interview.** Once transcribed, these interview data followed an analysis process similar to the audiotaped classroom discourse. Transcripts of the stimulated recall interview were analyzed using emergent and a priori codes. A priori codes for the following
teacher instructional moves were used in this study: prompts, cues, and modeling or explanations. An additional four codes emerged from openly coding data. Patterns in each teacher’s decision making processes were generated through line by line, microscopic coding (Rowe, 2009). Categories were identified and the relationships among them were analyzed. Finally, selective coding was applied as common trends and themes among the data emerged.

The transcript was reviewed for patterns, trends, or themes revealing teacher decision making as they used questioning during small group instruction to teach reading. Data obtained during the stimulated recall interview went through the process of constant comparative analysis. Additionally, stimulated recall data was triangulated with data acquired from field notes, audiotaped classroom discourse, and teacher questionnaires. Even though the bulk of data analysis occurred after data were collected, there were times when data collection and analysis occurred simultaneously. This “continuous interplay between analysis and data collection” (Strauss & Corbin, 1994) is rooted in constant comparative analysis.

**Reliability**

Reliability for this study was established in three ways: field notes, inter-rater agreement, and observations repeated across time. Field notes were used as a reliability check. They were systematically and chronologically (two per participant) collected at four levels: (1) descriptive, verbatim, narrative account; (2) researcher memos or notes commenting on the description; (3) a fieldwork journal of experiences, confusions, breakthroughs, etc.; and (4) a running record of analysis and interpretation (Kirk & Miller, 1986). These four ways of recording and analyzing similar observations strengthened this study’s reliability. Kirk and Miller (1986) refer to internal reliability as synchronic reliability and define it as “the extent to which two simultaneous observations, or two observations of an unchanging target, yield the same information. The four
layers of field notes taken during this study allowed the researcher to “check the strength of the data” (Kirk & Miller, 1986).

Inter-rater reliability was established for: the frequency of reading comprehension questions asked, the types of reading comprehension questions asked, and the types of instructional moves made by teachers to students’ incorrect or incomplete answers to reading comprehension questions. Using a priori codes, an additional coder was trained for each area where inter-rater reliability was established. Kennedy (2005) recommends achieving a minimum of 80% reliability for educational research by calculating inter-rater reliability on 33% of the collected data. Three different coders were used in this study – each to establish inter-rater agreement on one of the research questions. The coder for the first research question was a doctoral student, former general education teacher, and reading coach. The coders for the second and third research questions were retired after having served many years as a teacher, reading coach, and building administrator. Each coder was trained using coding directions, an oral explanation of the coding directions, and question and answer sessions. The researcher explained coding directions to each coder. Coding directions included the research question, operational definitions for codes, examples of classroom discourse that fit each code, and directions for how to code each transcript. Question and answer sessions took place after the initial explanation of the coding directions and involved clarification questions from the coder.

The coder and the researcher independently coded the types and frequency of questions using practice segments of transcribed discourse. A total agreement formula \( \frac{S}{L} \times 100\% \) was used for calculating agreement on: what constitutes a question, what constitutes a reading comprehension question, how often reading comprehension questions were asked, which category each reading comprehension question would be placed in, and what types of
instructional moves were made by teachers when students incorrectly or incompletely answered reading comprehension questions. Using the total agreement formula, the smaller total (S) of one coder was divided by the larger total (L) of the other coder, and that number was multiplied by 100. Inter-rater reliability for research question number one was 93%. Additional coding sessions for two transcripts were employed until a rate of 85% inter-rater reliability was obtained for research question number two. Inter-rater reliability for research questions number three was obtained at a rate of 87% agreement.
Results

The focus of this study was to investigate how 4th grade and 5th grade general education teachers used questioning in small group reading instruction where students with learning disabilities (LD) are included. Specifically, the study looked at the frequency and type of comprehension questions asked by teachers, as well as how teachers responded to answers students provided. This chapter begins with a section that provides a general overview of the class and describes the context that small group reading instruction was provided in. The following three sections mirror the research questions of this study: frequency of comprehension questions, types of comprehension questions, and teachers’ response to students’ incorrect or incomplete answers to the comprehension questions.

Classroom Contexts

Over the course of 10 weeks, 10 small group reading lessons were observed across five 4th grade and 5th grade general education classrooms in two elementary schools. Each of the small groups included at least one student with LD. In each of these classrooms during the reading period, there was one teacher present and an average of 26 students (ranging from 16-30 students per classroom). Three of the teachers reported meeting with two small groups per day. Alyssa, one of the 5th grade teachers, reported meeting with three small groups per day, while Eve, another 5th grade teacher, reported meeting with one small group per day. The average size for these small groups was about four students.

There were several commonalities across the five classroom learning environments including: desks arranged in clusters of four or five, a classroom library, a kidney bean shaped table used for small group instruction, and a variety of instructional charts posted in the classroom to support reading instruction. Each classroom had either teacher-made or student-
made instructional charts about reading comprehension strategies. Charts focused on one particular strategy, gave a definition of the strategy, examples of the strategy found in stories or novels, and sometimes a graphic organizer using the strategy. In each of the classrooms, there was an instructional chart posted about the procedures for selecting text and student expectations during independent reading time. In one teacher’s classroom, Danielle’s, there were student generated charts entitled: “Predict and Set Purpose”, “Questioning”, and “Cause and Effect”. While in the other classrooms there were primarily teacher generated strategy charts with titles that include: “Summarizing Fiction”, “Character Traits”, “How and Why Characters Change”, “Authors Reveal Character By”, “Cause and Effect”, “Predictions”, and “Questioning”.

Each classroom had a section earmarked for the classroom library. The classroom libraries in each room contained a large quantity of books housed in approximately five to six bookcases per classroom. Brooke’s classroom library consisted of an overabundant amount of books housed on eight bookcases. In the other classes, a smaller but ample quantity of books was housed. Books in each classroom were placed in colorful plastic baskets and categorized by genre (historical fiction, graphic novels, mystery, biographies), or topic (animals, butterflies, slavery, world history).

Each teacher began her reading block with a whole group lesson that included reading aloud a picture book or a novel and demonstrating a reading comprehension strategy designed to enhance students’ development of a reading comprehension skill. Following the whole group reading lesson for the day, students independently practiced the focus skill from that lesson while the teacher met at a kidney bean shaped table with specifically selected groups of students for small group reading instruction. During each of the 10 observations, teachers indicated that students were grouped based on how well they mastered reading comprehension skills, as
measured by their performance on both standardized and informal assessment measures. All the teachers determined students’ comprehension skill proficiency by reviewing the results on the Scantron or the Northwest Evaluation Association (NWEA) MAP assessments. These two formative assessments are administered online at the beginning, middle, and end of the school year, are aligned to state or national standards, and calibrate the difficulty of test items according to each student’s response to each preceding test item. Alyssa, however, also used individualized running record assessments (Fountas and Pinnell Benchmark Assessment System) along with NWEA data to group her students and determine what aspect of decoding, comprehension, and fluency to teach. Teachers described the reading levels of students in their classrooms as ranging from 1st/2nd grade level through 7th/8th grade level. Teachers described changing their groups on a weekly, bi-weekly, or monthly basis depending on student performance on quizzes, individual assessments, and student work samples. As shown in Table 2, small group lessons lasted from approximately 15 to 30 minutes with the mean length of the small group lessons being 21.6 minutes (SD = 4.83).

Standardized assessment data were also used to determine the focus of the small group lesson. The majority of the small group lessons observed could be best categorized as focusing on comprehension strategy instruction which meant teachers described or explained a strategy, modeled, and/or provided guided practice with corrective feedback as they taught students cognitive strategies (Jitendra, Burgess, & Gajria, 2011; May, 2011). During eight of the lessons, teachers explained a reading strategy, shared examples, and guided students in applying the strategy to different forms of narrative text. The remaining two observed lessons more closely resembled reading skill lessons. During those lessons, students were expected to comprehend
text using previously learned reading skills. When students had difficulty comprehending or decoding text, the teacher intervened with prompts, cues, and explanations.

Table 2

*Characteristics of Small Group Reading Instruction Averaged Across Two Lessons per Teacher*

<table>
<thead>
<tr>
<th></th>
<th>Length of Small Group Lessons (Minutes)</th>
<th>Number of Minutes Spent on Comprehension Instruction*</th>
<th>Group Size</th>
<th>Students with LD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alyssa</td>
<td>25</td>
<td>12 (48%)</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Brooke</td>
<td>28</td>
<td>23 (83%)</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Caitlyn</td>
<td>19</td>
<td>7.8 (41%)</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Danielle</td>
<td>16</td>
<td>14 (88%)</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Eve</td>
<td>20</td>
<td>14 (70%)</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td><em>M (SD)</em></td>
<td>21.6 (4.83)</td>
<td>14.2 (5.55)</td>
<td>4.2 (1.09)</td>
<td>2.2 (1.30)</td>
</tr>
</tbody>
</table>

* Parentheses represent the percentage of the small group reading lesson that was spent on comprehension instruction.

Small group reading material and resources. In each lesson, teachers used and/or referenced fictional narrative text from a variety of genres, including poetry, historical fiction, realistic fiction, folktales, mystery, and fantasy. Teachers also used text from a variety of sources including: the leveled readers that accompanied their Houghton Mifflin classroom basal series, text from novels (*Ninth Ward*), online resources (www.readingaz.com), intervention kits (Scott Foresman Teacher Vision), teacher resource workbooks (Strategies that Work by Teacher Created Resources), and leveled readers from publishing companies (Mondo Publishing).

According to the teachers, the readability of the text used matched the students’ ability level. In
two of the 5th grade classrooms, teachers indicated that students were instructed with text written at a second grade level. Danielle described her group of students as reading three grade levels below the 5th grade. Another 5th grade teacher, Alyssa, indicated that the instructional reading levels of the students in her group ranged from the beginning of first grade to the middle of second grade. In addition to variety in genre and sources of text, there was variety in the length of text used. The text ranged from two short paragraphs of text found in teacher resource books to several pages of text found in leveled readers, and chapters of an entire novel. Dry erase boards, markers, charts, and student notebooks were supplemental materials commonly used during the small group lessons.

**Students with LD.** Only small groups that included at least one student with LD were observed. However, the number of students with LD included in these groups varied considerably, ranging from 25% to 75%, representing one to three of the students in the group. Across all of the classrooms observed in this study, there were a total of 11 students with LD, who represented 52% of the 21 students observed. Two of the eight 4th grade students had LD, and nine of the 14 5th-grade students had LD. With the exception of Alyssa, the teachers reported having students with LD spread out across a few groups in their class. Teachers emphasized that their students with LD were very diverse in reading level/ability, mastery of specific comprehension strategies, achievement, strengths and interests. When describing their students with LD (without revealing identities), teachers often spoke of character traits beyond reading abilities, including factors of motivation and enthusiasm, reading preferences and habits, academic performance, and personal preferences such as a desire to engage with the same text and activities as their nondisabled peers. These factors were used to determine which students with LD were included in which small groups for reading instruction.
When asked about the strengths of the students with LD included in their classrooms, teachers consistently emphasized students’ motivation to learn and their responsiveness to the modifications made to instruction. They were, however, concerned that many of their students with LD were still not reading at grade level or applying strategies during independent reading despite the students’ motivation and the teachers’ instructional efforts. In addition to these concerns, Brooke, one of the 4th grade teachers, was concerned about her students with LD being identified by other students in the classroom as having reading difficulties. She intentionally separated the students with LD by placing them across different groups.

My biggest concern is that they feel comfortable in the classroom and don’t feel like they’re always being pulled out or focused on so the other students know that they are the ones who don’t understand. I try not to put them all together in the same group. When I can, I consciously try to split them up even when I don’t have to. They don’t all have the same needs anyway. (questionnaire 11/29/11)

In addition to these concerns, each teacher described the achievement of their students with LD as varying from student to student. Caitlyn, Danielle, and Eve described the progress of each of their students with LD individually. Alyssa collectively described her students as making significant progress. In the following quote, Brooke’s summary describes variation in student achievement based upon teacher support.

It (achievement) varies from kid to kid. One student needs very little support and does really well with reminders and meeting in small group a couple times per week. Then the other end of the spectrum includes students who need a lot of support from me and has limited success with completing work from me and completing it successfully.

(questionnaire 11/29/11)
Comprehension instruction. Given that the focus of small group instruction for these teachers was reading comprehension, it is not surprising to note that an average of two thirds (or 14 minutes) of the time spent during the lesson was spent on comprehension instruction. Comprehension instruction was measured in one-minute intervals from verbatim transcripts of audiotaped classroom discourse. Comprehension instruction included instances when teachers: modeled thinking and how to chart text clues; engaged students in discussing the meaning of text, vocabulary words, or key concepts; asked students reading comprehension questions; and responded to students incorrect or incomplete answers to reading comprehension questions. As seen in Table 2, the mean percentage of time spent on comprehension instruction across the 10 lessons of all five teachers was 66% or 14.2 minutes. This percentage was higher for three of the five teachers who spent 70% (14 minutes), 83% (23 minutes), and 88% (14 minutes) of their small group lesson focused on comprehension instruction. For the two remaining teachers in this study, however, there was a marked difference in time focused on comprehension. Alyssa and Caitlyn took a slightly different approach to the purpose of small group instruction when compared to the other teachers. The mean percentage of time spent on comprehension instruction for their small groups were 48% (12 minutes) and 41% (7.8 minutes) respectively. During their interviews, these two teachers spoke of their students’ extreme difficulties with decoding text and low-test scores on decoding assessments. They, in turn, used small group instruction as another opportunity to work on other components of reading instruction in addition to comprehension. In contrast to the other three teachers who spent brief amounts of time allowing students to read aloud text as they taught comprehension strategies focused on making inferences, finding the main idea, characterization, Alyssa and Caitlyn spent considerably more time helping students decode the text before comprehending it. The portions of the reading
lessons that were not spent on reading comprehension instruction across all observed lessons were typically used to listen to students read aloud text, give logistical directives to students, copy or glue notes about comprehension strategies into student notebooks, assist students in decoding words while reading text aloud, provide a model while guiding students through the process for recreating charts to gather text clues for practicing reading strategies, or explicit phonics instruction.

There were two different ways that these five teachers demonstrated “reading aloud text”. In one scenario, teachers listened to individual students read aloud text while checking on their fluency and decoding abilities. In this instance, teachers helped students decode words in the text. The other scenario closely resembled round robin reading, and involved students taking turns reading aloud sections of text. Teachers did not assist students with decoding. In this scenario, the teacher asked students comprehension questions after several sections of text were read aloud. The focus was not primarily on comprehending the text that was read aloud, but instead, the focus was on using the text that had been read aloud to practice the comprehension strategy as a group. When calculating amount of time spent on comprehension instruction, the times where text was read aloud was not factored into the calculations.

**Frequency of Reading Comprehension Questions**

Teacher questioning typically takes up a vast majority of the teacher-student interactions during instruction (Chin, 2007; Marzano, Pickering, & Pollock, 2001; Parker & Hurry, 2007). The teachers in this study spent a significant amount of time posing different types of questions. They posed an average of 61 questions per small group lesson, which was an average of 2.9 questions per minute (see Table 3). The percentage of comprehension questions varied a bit for three of the teachers from session to session due to differences in the length of the lesson, time
spent orally reading text, and time spent assisting students decode unknown words. However, for two of the teachers, the percentage of comprehension questions was consistent. Given this study’s focus, comprehension questions were distinguished from other types of questions asked during the lesson. Reading comprehension questions were operationalized as a question that checks students’ understanding of text, knowledge of a strategy, or metacognitive uses of specific reading comprehension strategies. Figure 2 shows examples of reading comprehension questions and other types of questions posed by the teachers in this study. Of all teachers’ questions, an average of 62.4% were coded as reading comprehension questions. Teachers were observed asking questions throughout the lesson, before, during, and after reading text. During comprehension strategy instruction, questions were posed at the beginning of the lesson as teachers queried students existing knowledge of the comprehension strategy, and at the end of the lesson to assess students’ new knowledge of the comprehension strategy. Also during these skill-based lessons, comprehension questions related to concepts and vocabulary terms were asked prior to students receiving or reading the text.

Table 3

_Average Frequency and Percentages of Questions Asked During Small Group Instruction_

<table>
<thead>
<tr>
<th></th>
<th>Mean number of Questions</th>
<th>Average Number of Questions per Minute</th>
<th>Mean Percentage of Comprehension Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alyssa</td>
<td>72</td>
<td>2.9</td>
<td>47%</td>
</tr>
<tr>
<td>Brooke</td>
<td>61</td>
<td>2.2</td>
<td>92%</td>
</tr>
<tr>
<td>Caitlyn</td>
<td>48</td>
<td>2.5</td>
<td>46%</td>
</tr>
<tr>
<td>Danielle</td>
<td>56</td>
<td>3.5</td>
<td>61%</td>
</tr>
<tr>
<td>Eve</td>
<td>68</td>
<td>3.4</td>
<td>66%</td>
</tr>
<tr>
<td><em>M (SD)</em></td>
<td>61 (9.54)</td>
<td>2.9 (0.56)</td>
<td>62.4% (18.69)</td>
</tr>
</tbody>
</table>
The purpose of reading comprehension questions is to help students construct meaning from text. Questions that assist students in decoding words were not counted as comprehension questions in this study. Questions that prompted students’ understanding of vocabulary words or major concepts related to the text were included in the percentage of reading comprehension questions asked.

Figure 2

**Comprehension Questions**

<table>
<thead>
<tr>
<th>Examples</th>
<th>Non-Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>How did the boys feel when they first saw Paul standing tall? How do you think they felt?</td>
<td>What is the ‘y’ sound in the middle of that word?</td>
</tr>
<tr>
<td>Okay, so can one of you guys tell me what main idea is?</td>
<td>Can I have a volunteer to read the first paragraph?</td>
</tr>
<tr>
<td>So when would you need to use a Venn diagram?</td>
<td>Does that sound like a long ‘a’?</td>
</tr>
</tbody>
</table>

**Types of Reading Comprehension Questions**

Each teacher in this study asked a variety of types of questions throughout their lessons; however, the findings of this study are based only on the reading comprehension questions asked during small group reading lessons. After reviewing each comprehension question to determine its characteristics and function within the lesson, seven category types of questions were identified. Table 4 lists the reading comprehension category types, definitions, and examples of reading comprehension questions posed by teachers in this study. The three most frequently used comprehension questions by teachers were literal elicitation, inferential elicitation, and divergent question. Other question types regularly used were activating prior knowledge and elaboration questions.
## Table 4

**Operational Definitions for Types of Reading Comprehension Questions**

<table>
<thead>
<tr>
<th>Type of Question</th>
<th>Operational Definition</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Elicitation</strong></td>
<td>To unearth misconceptions and check for factual knowledge</td>
<td>• What other pieces of text are there on this cover besides the title?</td>
</tr>
<tr>
<td>(Literal)</td>
<td></td>
<td>• What happened when Roberta saw Paul?</td>
</tr>
<tr>
<td><strong>Elicitation</strong></td>
<td>To unearth misconceptions and check for factual knowledge inferred through higher order thinking</td>
<td>• Why were the crows able to see and smell the pie?</td>
</tr>
<tr>
<td>(Inferential)</td>
<td></td>
<td>• How do you know that she is happy?</td>
</tr>
<tr>
<td><strong>Elaboration</strong></td>
<td>To extend the length and complexity of the response</td>
<td>• Why do you say tricky?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Do you want to add anything to that?</td>
</tr>
<tr>
<td><strong>Clarification</strong></td>
<td>To repeat information in a different way, for clarity, or to be better understood</td>
<td>• It looks like games in the background?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Is it a family reunion?</td>
</tr>
<tr>
<td><strong>Divergent</strong></td>
<td>To discover how the student uses existing knowledge to formulate new understandings (This involves students putting pieces of knowledge or information together based on what they already know.)</td>
<td>• What would have happened if the crows did not share?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• What would be another good title for this story?</td>
</tr>
<tr>
<td><strong>Heuristic</strong></td>
<td>To determine the learners’ ability to problem solve</td>
<td>• What kind of movie do you think this is?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Do we have an inference based off what we know along with our text clues?</td>
</tr>
<tr>
<td><strong>Activate Prior Knowledge</strong></td>
<td>To repeat information learned in a previous lesson or to repeat what a student has said (This is often in the form of a declarative statement that is pronounced as a question.)</td>
<td>• Do you remember how to make an inference?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• What do we know about books that have animals as main characters or animals on the front cover?</td>
</tr>
</tbody>
</table>

**Literal elicitation questions.** In order to gain a better understanding of the types of higher order thinking questions teachers posed in this study, the a priori code ‘elicitation’ was subdivided into literal and inferential. Literal elicitation questions require students to recall factual information directly stated in the text. Inferential elicitation questions require students to infer factual information from the text that is not directly or explicitly stated. Teachers varied significantly in the types of comprehension questions asked during lessons (see Table 5). Literal elicitation questions were asked most frequently out of all the category types \( N = 21.6; \ SD = 3.36 \). On average, this comprehension question type was posed 28.5% of the time during a lesson. In fact, they were posed nearly twice as often as inferential elicitation questions. Literal elicitation questions require students to recall factual information. For example, in a lesson on main idea and supporting details, one teacher asked, “What is a detail?” During a lesson on making inferences, another teacher asked students to identify the types of text clues shown on the cover of a book. She asked, “What is this title?” Literal questions that elicited factual information were the most commonly asked type of question for three of the five teachers. The teacher with the heaviest usage of literal elicitation questions was Caitlyn given that 54% of her questions were literal elicitation questions. The other two teachers, Eve and Brooke, showed different patterns of usage for this question type. Eve asked the least amount of literal elicitation questions, and in fact, she asked nearly twice as many inferential elicitation questions as she did literal elicitation questions. The literal elicitation category ranked third for Brooke, a 4th grade teacher who asked divergent questions most often in her lessons.
Table 5

<table>
<thead>
<tr>
<th></th>
<th>Alyssa</th>
<th>Brooke</th>
<th>Caitlyn</th>
<th>Danielle</th>
<th>Eve</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Elicitation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Literal)</td>
<td>24 (36%)</td>
<td>19 (17%)</td>
<td>24 (55%)</td>
<td>24 (36%)</td>
<td>17 (19%)</td>
<td>21.6 (3.36)</td>
</tr>
<tr>
<td>(Inferential)</td>
<td>11 (16%)</td>
<td>12 (11%)</td>
<td>4 (9%)</td>
<td>12 (18%)</td>
<td>29 (32%)</td>
<td>13.6 (9.24)</td>
</tr>
<tr>
<td><strong>Elaboration</strong></td>
<td>9 (13%)</td>
<td>5 (5%)</td>
<td>6 (14%)</td>
<td>7 (10%)</td>
<td>11 (12%)</td>
<td>7.6 (2.41)</td>
</tr>
<tr>
<td><strong>Clarification</strong></td>
<td>4 (6%)</td>
<td>14 (13%)</td>
<td>3 (7%)</td>
<td>3 (4%)</td>
<td>7 (8%)</td>
<td>6.2 (4.66)</td>
</tr>
<tr>
<td><strong>Divergent</strong></td>
<td>6 (9%)</td>
<td>25 (23%)</td>
<td>4 (9%)</td>
<td>6 (9%)</td>
<td>16 (18%)</td>
<td>11.4 (8.93)</td>
</tr>
<tr>
<td><strong>Heuristic</strong></td>
<td>7 (10%)</td>
<td>11 (10%)</td>
<td>0 (0%)</td>
<td>10 (15%)</td>
<td>1 (1%)</td>
<td>5.8 (5.07)</td>
</tr>
<tr>
<td><strong>Activate Prior</strong></td>
<td>6 (9%)</td>
<td>25 (23%)</td>
<td>3 (7%)</td>
<td>5 (7%)</td>
<td>9 (10%)</td>
<td>9.6 (8.88)</td>
</tr>
</tbody>
</table>

Teachers used literal elicitation questions with great frequency and in multiple ways. They were used (1) to check for understanding as students read aloud sections of text; (2) as scaffolds when students had difficulty answering questions that required more complex cognitive processes; and (3) to help students identify text clues that would support inferences they made. The lesson excerpts below illustrate these two functions of literal elicitation questions. In the following example, Brooke used literal elicitation questions to intermittently check for student
understanding. Her 4th graders had just finished reading a section of the story *How People Got Wisdom*, an Ashanti Tale retold by Benjamin Kahn (2004).

Brooke: Okay so let’s stop real quick, and remember to stop, reread and ask ourselves if we know what’s going on in the story. So what’s going on so far? Who’s Anansi? And what’s going on with him? (literal elicitation question)

S1: Well Anansi is this spider and a long time ago, nobody had any wisdom.

Brooke: It says Anansi wasn’t wise and neither was anyone else. So who’s Nyame? (literal elicitation question)

S2: The king of the world, I guess.

Brooke: Look back into the text to see exactly who he is.

S2: He was the god of the sky.

Brooke: The god of the sky. And what’s going on between these two characters? S3.

S3: The god of the sky gives, gives Anansi a – some sweet yams and a golden web. But then Nyame wanted the Anansi—he wanted Anansi to do a favor.

Brooke: What’s the favor? (literal elicitation question)

S3: The favor is he wants, he wants Anansi to get to give the pot, the wisdom pot to the whole world.

Brooke: Yeah, he wants him to share that wisdom pot. I really liked the way S3 looked back into the text instead of just trying to remember everything on her own. (observation 1, 1/25/12)

In the following example, Caitlyn uses literal elicitation questions as a scaffold to support students in answering more complex question types. She was guiding her students through the process of determining the main idea of a selection entitled, *Mr. Greyfinch’s Garden*.
Caitlyn: What would be another good title for this story? The options are: going on vacation, getting old, the fruit trees, or moving to a new house.

S1: Moving to a new house!

Caitlyn: Well, let’s think about it.

S2: Fruit trees!

Caitlyn: What about ‘going on vacation’? S3, does this have anything to do with going on vacation? (literal elicitation question)

S3: No. They talk about him moving in.

Caitlyn: Yeah. Okay. What about getting old? (literal elicitation question)

S2: No!

S1: They didn’t say anything about he was getting old.

Caitlyn: They didn’t say anything about him getting old. They said what? What did they talk about? (literal elicitation question)

S2: He will be – Mr. Greyfinch moving into a garden. (observation 2, 2/8/12)

In her interview, Brooke commented on yet another function of literal elicitation questions. Her students were reading *Visiting a California Ghost Town* when one student made an inference without first identifying text clues. Brooke used literal elicitation questions to help him identify the text clues needed to support his inference. Here she explains the rationale for that decision.

Brooke: So the problem I had with a lot of the students in my class when we were making inferences and even trying to figure out what reading with context clues was jumping straight to that prediction. Or “I think this word means…” instead of stopping and thinking “Okay these are my clues. This is what I know about this. Now I think this word
means this.” The same thing (occurs) with making inferences. So here I tried to back him up saying what did you see that made you think that? What clues do you see there? (interview, 1/31/12)

**Inferential elicitation questions.** The second most commonly asked question type in this study was inferential elicitation questions. Compared to literal elicitation questions, which were asked an average of 21.6 times in a lesson, inferential elicitation questions were posed an average of 13.6 times in a lesson. On average, this type of question made up 18% of the comprehension questions asked in a small group reading lesson. Inferential elicitation questions require students to infer information from the text not explicitly stated by logically putting together details that were explicitly stated in the text.

Inferential elicitation questions made up about one-third of the comprehension questions asked by Eve in her small group lessons. During her interview, she stated the importance of her students understanding why things happened. Alyssa and Danielle were the teachers who used inferential elicitation questions with the next highest frequency. This questioning category made up 16% and 18% (respectively) of Alyssa and Danielle’s comprehension questions. Alyssa gave a rationale similar to Eve in the following statement as she explains the decision making process she engages in when deciding which questions to ask after her students read a story.

Alyssa: I want it to be a mixture of inferring questions and a mixture of literal questions. I do typically 5 – 6 questions per story in general. I like to have at least 2 inferring questions if not 3. I’d rather have – lean on the side of more inferring than factual unless it’s a non-fiction text. I want them to understand why some things happen. I think inferring is extremely hard, because sometimes they don’t have that background knowledge to help them. (interview, 11/28/11)
Here is an example where Alyssa began a question and answer session with an inferential elicitation question after her 4th graders read the story *Crows Share a Pie* by Robert Charles. Student responses to Alyssa’s inferential elicitation question posed here will allow her to assess if her students used higher order thinking skills to critically process this text.

Alyssa: Why were the crows able to see and smell the pie? (inferential elicitation question)

S1: Because they was flying around in the sky?

Alyssa: Because they were flying around in the sky. That’s one reason. Yeah.

S2: Because they saw the – that first crow saw this. Well he saw –

S3: Before that all happened-

S4: Yeah, that’s when two more came.

Alyssa: So one crow saw it first right?

Ss: Yeah

S4: And then the other crow saw him and the pie. So that’s when they just swooped down. (observation 2, 11/28/11)

Danielle used inferential elicitation questions in a different way. She used this category to have her students practice one strategy (identifying the main idea) before she explained a new, yet related strategy (identifying supporting details).

Danielle: So what did you think it was mostly about? (inferential elicitation question)

S1: He’s trying to wash the dog.

Danielle: Ok. A boy trying to wash a dog. *(addressing other S)* What did you say?

(inferential elicitation question)

S2: Um, that the boy is washing the dog.
Danielle: Ok, perfect. *(reciting what they said as she writes it down)* The boy is washing the dog. Okay. Now we talked about main idea being the big idea. We also talked about these details. So those are the little pieces that happened. So you thought about this picture. The boy is washing the dog. A small detail might be ‘there are bubbles’. That’s a smaller idea. *(observation 2, 11-29-11)*

**Divergent questions.** The third most commonly asked question type were divergent questions. On average, divergent questions were posed 15% of the time in small group reading lessons. Eve and Brooke asked this question type most often, and it made up 18% and 23% respectively of the comprehension questions asked during their lessons. For Alyssa, Danielle, and Caitlyn, this question type accounted for 9% of the comprehension questions asked during a lesson. These questions are constructivist in nature since they require students to verbalize new understandings using existing knowledge. Unlike inferential elicitation questions that require students to ‘read between the lines’ of text to state factual information, divergent questions require students to generate new understandings using existing knowledge. Examples of divergent questions found in a lesson on making inferences include: “What clues do you see that tell you what this book is going to be about?” and “How can we use this title to also help us make an informed inference?”

Brooke, a 4th grade teacher, used divergent questions throughout a lesson on making inferences. While reading the folktale *How People Got Wisdom*, her students were using the text clues they had charted with their prior knowledge to make inferences.

Brooke: How can we use this title to also help us make an informed inference? *(divergent question)* *[while pointing to book cover]* This title says *How People Got Wisdom.*

S: Like what it is about?
Brooke: Yeah.

S: Maybe how people got smart or tricked or something.

Brooke: Why do you say tricked?

S: I looked at the word wisdom and I was thinking wisdom meaning smart or thinking or something like that.

Brooke: So where does tricky come in? (divergent question) Because that’s an interesting idea. That’s a good idea.

S: Well I was looking at how he got captured (observation 1, 1/25/12)

In the following example, Eve posed a divergent question at the end of this excerpt. She used the divergent question to clear up a misunderstanding her student had about the motivation for the main character’s sadness.

Eve: And what’s your character trait? What do you say she is?

S: It’s in this paragraph [She starts reading aloud.] “Lanesha, I don’t know who he is. Or where he is. Or if, if he still is. Your momma died before she could say. Your momma died before she could say.”

Eve: And so tell me what character trait are you saying.

S: Sad.

Eve: That she’s sad. About…Okay. So that text support that you gave me, is that about her mother dying?

S: Yes.

Eve: (reading aloud same text S4 just read emphasizing the word ‘he’) [Pointing to book while reading aloud.] “Lanesha, I don’t know who he or where he is. ” Who is the ‘he’? [T moves her hand back and forth over section of text S just read.]
S: The father. Because in the paragraph above it says, “I wish I could see my father. Dead or alive. It don’t matter.”

Eve: Okay. So Lanesha’s the one saying that she wishes she could see her father. So which one does this support: that she’s sad about her father or her mother? (divergent question) (observation 2, 12/20/11)

Teachers used divergent questions to help student clear up misunderstandings (as in Eve’s example), and to help students pull together important pieces of information from text as they generated new understandings (as in Brooke’s example). In both cases, divergent questions were helpful scaffolds to students to process text at a higher cognitive level. Both Eve and Brooke stood out as teachers who frequently used divergent questions in their lessons. Twenty-three percent of Brooke’s comprehension questions were divergent questions, and 18% of Eve’s questions were divergent questions. Divergent questions were a useful category type for Brooke given that both of her lessons were on making inferences, a skill that requires students to generate new understandings based on existing knowledge or information. Eve used both of her small group lessons to help her students with LD process grade level text at a higher cognitive level and clear up misunderstandings they had about the text. The following interview excerpt explains Eve’s rationale for the previous interchange.

Eve: “So as I was reading I kept emphasizing ‘he’, ‘he’. Yes, she’s sad but I wanted her to understand why she was sad….She said because the mom passed away. But in the particular text that she’s citing, it’s more about that she doesn’t have a father. She doesn’t know where he is. That would be an accurate character trait but you need to understand the voices. So I think she was getting it mixed up as to what they were talking
about and why Lanesha was sad at that moment. And at that particular text passage, it was about the father.” (interview, 12/20/11)

**Activating prior knowledge questions.** Despite its popularity as an opening technique during small group lessons, questions that activated students prior knowledge were not the most common type of questions asked during this study. This type of comprehension question was asked an average 12.7% of the time during a small group reading lesson. A common characteristic across teachers in this study was that they each activated students’ prior knowledge of a related text, vocabulary terms, or a specific comprehension strategy at the beginning of the lesson. Teachers commonly asked a series of questions that prompted students to remember and articulate information learned from previously taught, but related, lessons. For example, prior to beginning a lesson on main idea, Caitlyn questioned students’ background knowledge on the meaning of main idea. She continued to question and probe students as she listened for the types of procedural knowledge they had retained with regards to the process of determining the main idea.

Caitlyn: Okay. So yesterday we talked about that we were going to be working on picking out the main idea of a fiction passage. What does that mean – the main idea? What do I mean by that? (activating prior knowledge questions)

S1: What the story, what the story is about.

Caitlyn: What the story is about?

S1: Right.

Caitlyn: So, well how is that different from a summary then? Because isn’t a summary telling what the story is about?

S1: Yes.
Caitlyn: Yeah, think about it. The main idea…

S1: The main idea – it’s like what’s the main part of the story- (T cuts her off; S4 has his hand raised and she calls on him.)

Caitlyn: I see a few people that have their hand up. S4, what do you think the main idea is?

S2: Like, it can be like the problem. (T writes ‘problem’ on the dry erase board.)

Caitlyn: Well maybe.

S3: Probably like the point of the whole story.

Caitlyn: the whole point of the story (writing on dry erase board) (observation 2, 2/8/12)

In this next example, Eve was guiding her 5th graders through a characterization lesson using the main character, Lanesha, from the novel *Ninth Ward* by Jewell Parker Rhodes (2010). She gave a general statement on characterization, and then proceeded to activate their prior knowledge on how character is determined.

Eve: Alright, so what we’re doing now is thinking about some of the things that we know about Lanesha. So the focus is, today, thinking about her character. What type of person she is. So every time that we talk about characterization, it’s talking about what type of character or person that people are based on different things that are said in the book. So who remembers when we talked about characterization before? [T maintains eye contact with students in the group.] What did we say? How do we know about someone’s character? (activating prior knowledge questions)

S1: the actions

Eve: So the actions. That’s one. So write that down (referring to the graphic organizer & pointing to place on a student’s paper), just all the way to the side. So you look at
the actions. What does that person do? What’s another way that we can know about a
person? S2.

S2: their feelings

Eve: Their actions, their feelings, what else? How do we know about people? (no
response) How do we know about you? (observation 2, 12/20/11)

During interviews, teachers stated their rationale for engaging students in the process of
activating prior knowledge as taking them through a process of constructing knowledge,
determining what was retained from previous lessons, and confirming the necessity of strategy
instruction for this particular group of students. In the following example, Caitlyn explains why
she did not begin the lesson by stating the definition of main idea:

Caitlyn: My thinking behind that (activating prior knowledge) was – I flip back and forth
– but I feel that the best way to get them thinking is to make them do that first. So
instead of just telling them what it is, getting them to come up with ideas about it on their
own and then somehow creating the actual definition. More like that exploring to figure
it out first - Constructing their own meaning, I guess. (interview, 2/8/12)

During her interview, Brooke used her students’ responses to prior knowledge questions
posed at the beginning of the lesson to confirm the need of this reading strategy lesson for this
particular group of students.

Brooke: I think they at least had an idea… Now each of them individually had a certain
part of what making inference involved but none of them gave the full answer. Like
someone said ‘you use clues’. Someone else said ‘and you use what you already know.’
But no one kid said all of those things together which is kind of the whole point of
making an inference. But that’s okay because that’s the whole reason why they’re in this
group is because they can’t do that right away…So they were kind of right where I wanted them to be actually. Like ‘we kind of know what this is but, we can put all of our ideas together to come up with a better, more cohesive picture of what making inference actually involves.’ (interview, 1/31/12)

**Elaboration, clarification, and heuristic questions.** Elaboration, clarification, and heuristic questions were the least often posed type of comprehension question by the teachers. On average, elaboration questions were posed 7.6 times per lesson, clarification questions were posed 6.2 times during a lesson, and heuristic questions were posed an average of 5.8 times per lesson. In each of these questioning categories, one or two teachers’ heavy use of this questioning type considerably raised the average.

In the following example, Alyssa uses elaboration questions to help her students go more in-depth on their responses to literal and inferential elicitation questions. They have just finished reading the story *When Paul Bunyan Came to Middleburg Elementary School*, and are now responding to her questions about the text.

Alyssa: Right. Where was Paul? Where was Paul at?

S: in the woods

Alyssa: O.k. why was he in the woods?

S: cause, because to hide.

Alyssa: O.k. How did the boys feel when they first saw Paul standing tall? How do you think they felt?

S: They were like, whoa!

Alyssa: So explain. What do you mean ‘like whoa’? (elaboration question)
S: Cause they never did see him because of how tall he was that – they never did see him stand up as high as he could. So that’s why they were like ‘whoa’ because of how tall he was. (observation 1, 11/16/11)

The next question category that was least often used was clarification. Brooke stood out as the teacher who frequently used clarification questions. She posed clarification questions an average of 14 times across two small group lessons, which is considerably higher than the group average of 6.2 clarification questions per lesson. Brooke’s clarification questions often took the form of repeating students’ responses to other comprehension questions while charting their responses. Other times that she used clarification questions were when she summarized multiple responses from students into one just before charting the response. In the following example, Brooke is charting clues that her students identify from a photograph of a scene from the movie Grease. They will use the clues plus what they know about the clues to make an inference.

Brooke: Okay, those are good clues. What about our clue that these are hairstyles and clothes from the past? [T is holding dry erase board up and pointing to board]

S1: It could be—like this is an old movie.

Brooke: So you know in old movies they wear clothes and hairstyles people wore during that time.

S2: Sometimes you might, because I seen, we saw the man in all black. I seen his hairstyle before.

Brooke: You have?

S2: He works at Forever 21.

S3: That’s Elvis. (referring to John Travolta in the picture from the movie Grease).
Brooke: So you know that it’s an Elvis hairstyle and you know that this is a hairstyle from awhile ago right? (clarification question)

S4: Back in the days, they hair used to be like all straight up like Alfalfa. I know it’s old because of how they dressed alike back in the day.

Brooke: So then what we know is that they dressed like that in older movies. (observation 2, 1/31/12)

Heuristic questions were the least often used questioning category in this study. Danielle stood out as one of the two teachers who asked more heuristic questions in her lessons than other teachers in this study. Heuristic questions, which determine students’ problem solving ability, were frequently used in Danielle’s lesson on charting details from text into the appropriate sections of a Venn diagram. She posed the following questions during that lesson which required problem solving actions on the part of the students.

“What information did you find to add to your chart?”

“Okay and why did you put it in that section?”

“So on one side, what do you think will be on your Venn diagram?” (observation 1, 11/22/11)

**Teachers’ Responses to Students Incorrect or Incomplete Answers**

Even after they set up a supportive learning environment (small group setting, text selected at students’ instructional level, flexible and data-informed grouping processes), Alyssa, Brooke, Caitlyn, Danielle, and Eve engaged their students in a variety of scaffolded interactions to help them comprehend text. Comprehension questions were asked quite frequently throughout these small group reading lessons. When students did not respond correctly or completely to the questions, teachers followed-up with seven different types of responses (see Table 6). Across the
five teachers, students incorrectly or incompletely responded to approximately one-third of reading comprehension questions asked (n = 24) (see Table 6).

Table 6

*Average Number and Percentage of Incorrect or Incomplete Student Answers*

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Number of Reading Comprehension Questions</th>
<th>Number of Incorrect or Incomplete Student Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alyssa</td>
<td>67</td>
<td>24 (36%)</td>
</tr>
<tr>
<td>Brooke</td>
<td>111</td>
<td>32 (29%)</td>
</tr>
<tr>
<td>Caitlyn</td>
<td>44</td>
<td>18 (41%)</td>
</tr>
<tr>
<td>Danielle</td>
<td>67</td>
<td>21 (31%)</td>
</tr>
<tr>
<td>Eve</td>
<td>90</td>
<td>25 (28%)</td>
</tr>
<tr>
<td>Average</td>
<td>75.8</td>
<td>24 (32%)</td>
</tr>
</tbody>
</table>

Teachers used instructional moves as scaffolds, and each instructional move varied in the amount of teacher support it delivered. Teacher instructional moves are quickly occurring, complex instructional decisions requiring teachers “to draw on curricular and developmental knowledge to apply scaffolds that guide” student learning. (Frey & Fisher, 2010, p. 85). The seven instructional moves used in this study were: prompts, cues, models or explanations, acceptance, rephrased or repeated questions, processing time, and corrected answers. Table 7 lists definitions of these instructional moves along with examples used by the teachers in this study. Throughout each of the small group reading lessons, teachers engaged in a variety of
instructional moves designed to promote students’ reading comprehension.

Table 7

*Teacher Instructional Responses to Students’ Incorrect or Incomplete Answers*

<table>
<thead>
<tr>
<th>Type of Instructional Move</th>
<th>Purpose</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prompts</td>
<td>To help students think about background knowledge, take students through a process, or use metacognition to reflect on knowledge.</td>
<td>“What strategy can help you?”</td>
</tr>
<tr>
<td></td>
<td>To follow-up with explanations, examples, posing a leading question for the student, or planning what the student should do next when prompts or cues were unsuccessful.</td>
<td>“What’s another way that we can know about a person?”</td>
</tr>
<tr>
<td>Models or Explanations</td>
<td>To follow-up with explanations, examples, posing a leading question for the student, or planning what the student should do next when prompts or cues were unsuccessful.</td>
<td>“The things that people say let’s you know what type of person someone is.”</td>
</tr>
<tr>
<td></td>
<td>To follow-up with explanations, examples, posing a leading question for the student, or planning what the student should do next when prompts or cues were unsuccessful.</td>
<td>“So actions right? That’s why you’re saying that she’s sad?”</td>
</tr>
<tr>
<td>Accepted Approximations</td>
<td>To confirm or praise approximate answers and encourage further processing.</td>
<td>“Well, maybe.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“Okay, somebody disappears, but what does it mean?”</td>
</tr>
<tr>
<td>Rephrased/Restated Questions</td>
<td>To help students process the question in a different way</td>
<td>“Or how would I know what type of person you are? How would I know?”</td>
</tr>
<tr>
<td>Processing Time</td>
<td>To allow students’ time to process or further think about a question, prompt, or cue; to promote student independence.</td>
<td>“Okay.” (pause)</td>
</tr>
<tr>
<td></td>
<td>To allow students’ time to process or further think about a question, prompt, or cue; to promote student independence.</td>
<td>“Think about it.” (pause)</td>
</tr>
<tr>
<td>Corrected Answers</td>
<td>To inform students of the correct response and/or continue with other aspects of the lesson.</td>
<td>“But she’s not a bear. That’s a cartoon!”</td>
</tr>
<tr>
<td>Corrected Answers</td>
<td>To inform students of the correct response and/or continue with other aspects of the lesson.</td>
<td>“But she’s not a bear. That’s a cartoon!”</td>
</tr>
</tbody>
</table>
These moves occurred quickly and sometimes subconsciously. Other times, teachers were very intentional on the amount of additional support provided through their interactions with students during small group instruction. With the exception of Caitlyn who initially ignored two responses from a student during a lesson on main idea, teachers responded to each of their students’ incorrect or incomplete answers. During her interview, Caitlyn explained how she initially ignored the student’s response as she processed and thought about how to address it later on during the lesson.

Caitlyn: This is one of those ‘but it was about the garden’. I kind of ignored that because I had to process how I was gonna go about making him understand. And then I came to it what I was gonna do. So when he said it, I ignored it. I didn’t address it at that point. So I processed and then I figured out a way to try to help them understand why it wasn’t the fruit trees. (interview, 2/8/12)

Three of the seven instructional moves (prompts, cues, and models or explanations) found in this study were from a priori codes in the Frey and Fisher study (2010) that focused on ways teachers used scaffolds to check and foster student learning during small group instruction. The following four types of teacher instructional moves emerged during this study: accepted approximations, rephrased or restated questions, processing time, and corrected answers. There were times when teachers praised, confirmed, or accepted a student’s answer that was almost or partially correct. Teachers usually followed up to students’ approximate responses by restating the original question or posing a rephrased question to help students give a more complete response. Both of these instructional moves encouraged students to continue to process information to achieve a correct answer. Other times, teachers paused and maintained eye
contact with students when they responded to a comprehension question with silence. This move also encouraged students to further think about the question, but gave no additional teacher support. In the event that the teacher wanted to move on with the lesson or inform students, she told students the correct answer. This type of instructional move was typically followed with either another comprehension question or additional strategy instruction. As an example, during a lesson on determining the main idea, the teacher asked her students what was the difference between the city and the suburbs to prompt their thinking about the main character’s garden. Her students’ responses showed they lacked prior knowledge on the topic, and she eventually abandoned that line of questioning. Here is her rationale for those instructional moves.

Caitlyn: Because I was like, here’s an easy question. What’s the difference between the city and the suburbs? Come on guys, just think about it. What’s the difference? Come on, there’s tons of stuff. Not realizing that they had not constructed their own meaning of what the difference was. So I’m thinking this would be an easy question to guide them to thinking about ‘Did Mr. Greyfinch know that he was going to have a garden?’ And then saying, okay, well make the inference. What do you know is the difference between the city and the suburbs? And then eventually they would come to the realization that the city has less greenery. The suburbs might have more greenery and my guided questions just stopped flat. So that was not working. (observation 2, 2/8/12)

One feature of these instructional moves is that they each involve a different level of teacher support. Figure 3 displays the teacher instructional moves placed along a continuum ranging from a high level of teacher support to a lower level of teacher support. Instructional moves such as repeating or restating the question and pausing to give students processing time involve little to no teacher support. Processing time involved the teacher maintaining eye contact...
with a student or group of students and pausing for two seconds or more after posing a reading comprehension question. In those instances, the responsibility is placed entirely upon the student to do the cognitive work required to answer the question. When a teacher offers verbal acceptance of a students’ approximation to a response, there is a low amount of support. The cognitive responsibility is placed upon the student to give an additional response, but the student has received feedback from the teacher that he/she is almost at the correct response. Prompts and cues involved a moderate level of teacher support. In these cases, the teacher either cues the students’ attention to where he/she can find the answer or prompts the student with a question or statement to help determine the answer. The burden of cognition is still placed upon the student, but there is moderate support from the teacher to aide in this process. Finally, a teacher who models or explains how to get the answer or tells students the correct answer has given a high level of support and taken responsibility for cognitive processing.

Figure 3

Teacher Instructional Moves Along a Continuum of Support

<table>
<thead>
<tr>
<th>High Teacher Support</th>
<th>Moderate to Low Teacher Support</th>
<th>Little or No Teacher Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Answers</td>
<td>Cues</td>
<td>Repeated or Rephased Questions</td>
</tr>
<tr>
<td>Models or Explanations</td>
<td>Prompts</td>
<td>Processing Time</td>
</tr>
<tr>
<td>Accepted Approximations</td>
<td>Accepted Approximations</td>
<td></td>
</tr>
</tbody>
</table>

Figure 3. Teacher instructional moves placed along a continuum of high to low teacher support. Adapted from *Guided Reading: Good First Teaching for All* by I. C. Fountas and G. S. Pinnell, 1996, Portsmouth, NH: Heinemann, p. 26.

**Frequency of teachers’ instructional moves.** Variance was found in how these instructional moves were used in each teacher’s small group lessons (see Table 8). The majority
of teacher responses to students’ incorrect or incomplete answers included: models or explanations, prompts, and cues. These three categories accounted for 76% of the instructional moves used during the lesson, with models or explanations used 30% of the time, prompts 24%, and cues 22% of the time. Teachers critically thought about their instructional moves throughout the lesson. During her interview, one teacher explained her struggle between telling her students information about the main idea versus having them construct that knowledge on their own. In the following excerpt, she describes how she cued students’ attention to information in the text as a way of helping them construct a better understanding of the main idea.

Table 8

<table>
<thead>
<tr>
<th></th>
<th>Alyssa</th>
<th>Brooke</th>
<th>Caitlyn</th>
<th>Danielle</th>
<th>Eve</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prompts</td>
<td>15 (27%)</td>
<td>13 (24%)</td>
<td>12 (18%)</td>
<td>15 (27%)</td>
<td>27 (24%)</td>
<td>16.4 (24%)</td>
</tr>
<tr>
<td>Cues</td>
<td>9 (16%)</td>
<td>7 (13%)</td>
<td>20 (30%)</td>
<td>15 (27%)</td>
<td>24 (21%)</td>
<td>15 (22%)</td>
</tr>
<tr>
<td>Models or Explanation</td>
<td>15 (27%)</td>
<td>12 (23%)</td>
<td>19 (29%)</td>
<td>19 (34%)</td>
<td>38 (34%)</td>
<td>20.6 (30.1%)</td>
</tr>
<tr>
<td>Accepted Approximations</td>
<td>4 (7%)</td>
<td>7 (13%)</td>
<td>10 (15%)</td>
<td>2 (4%)</td>
<td>5 (4%)</td>
<td>5.6 (8.2%)</td>
</tr>
<tr>
<td>Rephrased or Restated Questions</td>
<td>5 (9%)</td>
<td>8 (15%)</td>
<td>2 (3%)</td>
<td>2 (4%)</td>
<td>14 (13%)</td>
<td>6.2 (9.1%)</td>
</tr>
<tr>
<td>Processing Time</td>
<td>2 (4%)</td>
<td>0 (0%)</td>
<td>4 (6%)</td>
<td>1 (2%)</td>
<td>0 (0%)</td>
<td>1.4 (2.1%)</td>
</tr>
<tr>
<td>Corrected Answers</td>
<td>2 (4%)</td>
<td>6 (11%)</td>
<td>2 (3%)</td>
<td>1 (2%)</td>
<td>4 (4%)</td>
<td>3 (4.4%)</td>
</tr>
<tr>
<td>Total Instructional Moves</td>
<td>56</td>
<td>53</td>
<td>66</td>
<td>55</td>
<td>112</td>
<td>68.4</td>
</tr>
</tbody>
</table>

Note: The percentage of each type of instructional move was calculated per teacher by dividing the number of instructional moves for that category by the total number of instructional moves. Types of instructional moves were averaged per category across teachers to obtain the mean.
Caitlyn: I knew it was coming up and I knew it was another way the authors relay the main idea. So I kind of wanted them to correlate the two without me saying, ‘Authors often choose a title that shows you the main idea.’ So kind of going back again to them constructing their own meaning from it. Pointing things out but making them realize why I pointed things out. (interview, 2/8/12)

The least often used instructional supports were processing time and corrected answers. Even though teachers rarely gave students correct answers to their reading comprehension questions, they also rarely gave students processing time as an instructional scaffold. Processing time involved the teacher maintaining eye contact with a student or group of students and pausing for two seconds or more after posing a reading comprehension question. Two other types of scaffolds were used for students’ incorrect or incomplete answers. Teachers either accepted students’ approximations or restated the question. This occurred at a slightly higher frequency at 8% and 9% respectively.

Instructional moves that were used less frequently tended to be more individualized to particular teachers. When students’ responses were incorrect or incomplete, Eve was most likely to rephrase or restate the question. Caitlyn was most likely to accept approximate responses from students or allow them processing time. And Brooke was most likely to correct students’ answers to reading comprehension questions.

**Models and explanations.** Eve, Danielle, and Caitlyn used models and explanations most often during their lessons to help students respond completely or correctly to reading comprehension questions. In the following example, Eve read aloud a section of text as an example of the main character’s character trait. Her students were having difficulty responding to
her questions asking for a specific character trait, and using examples from the novel as a rationale for selecting that particular character trait. Here she models the process.

Eve: Look at that paragraph. It says, “One day I’ll be able to read all of Shakespeare’s words and understand everything he’s saying like star-crossed, which doesn’t mean stars zigzagging across the sky. It means doomed.” So I’m saying that Lamesha likes to learn. That’s one of the character traits I would say for her, is she loves learning. And I’m supporting that from the text when it says that she wants to read Shakespeare and understand it. So she likes to learn. (observation 2, 12/20/11)

When her students had difficulty supporting the character trait they had selected with a rational and evidence from the text, Eve modeled that process using an example. During her interview, she explained her rationale for such explicit modeling.

Eve: I saw them kind of thinking about it and ‘where do I put the quote’ and things like that. So I said, alright, let me give you an example. Because that’s what helps them. I think what would have been better is if I had it already written down for them. So that they could see it. Because at that point I was speaking it to them and showing it to them in the book as it was written. But to help them to connect the dots even further, I should have already had it written down so it would be there for them to see. (interview, 12/20/11)

This next example shows Caitlyn thinking aloud and using an example to explain the significance of the title of a passage. Previously, she had stated that the main idea of a passage was something that is stated over and over again. Here she wants her students to understand the significance of the title. When they do not respond correctly or completely, she models the thinking process.
Caitlyn: What do you notice about the title?

S1: You have to identify.

Caitlyn: What about identify? What does that mean?

S1: (no response)

Caitlyn: The title of the passage – I’m sorry – not the title of the notes. What’s the title of the passage?

S1: Mr. Greyfinch garden.

Caitlyn: (T inflects her voice when repeating S comment; she points with her marker in the air and touches her nose and she models thinking aloud.) Mr. Greyfinch’s garden! Look what we asked ourselves. We asked ourselves what we kept seeing over and over. We said Mr. Greyfinch. They talked about him moving, and they talked about a garden. And the title says Mr. Greyfinch’s garden. (Explanation using an example)

S2: Mr. Greyfinch moved. He wanted to have a garden at his house so he could plant.

(observatation 2, 2/8/12)

Prompts. Both Alyssa and Danielle used prompts to help their students cognitively engage in problem solving. In the following example, Alyssa prompted one of her students to use context clues to figure out the meaning of a word while he was reading aloud a page of text from the story Paul Bunyan Visits Middleburg Elementary School.

Alyssa: O.k. so you need to make sure that you’re monitoring when you’re reading. You need to make sure that what you’re reading makes sense. If it doesn’t make sense, you need to stop and go back and re-read. (prompt) O.k. How did the boys feel when they first saw Paul standing tall? How do you think they felt?

S: They were like, whoa!
Alyssa: So explain. What do you mean ‘like whoa’? *(prompted S to reflect on info & elaborate on response)*

S: Cause they never did see him because of how tall he was that – they never did see him stand up as high as he could. So that’s why they were like ‘whoa’ because of how tall he was.

During her interview, Alyssa shared the importance of prompting students to think about whether a word choice makes sense.

Alyssa: I always want them to ask if it makes sense. I think it’s more of the strategies themselves, what I want them to use when they’re trying to figure out the words.

With context clues - I wanted to see - because he struggles when I confer with him.

Sometimes he struggles with vocabulary and understanding what it means. That’s why I asked him, ‘what do you think that word means?’ *(interview, 11/16/11)*

During a lesson on finding the main idea, Danielle prompted one of her students to explain the rationale behind his answer. At this point during the lesson, each student was giving a smaller detail that relates to the main idea of a picture.

Danielle: Yes. You see bubbles flying. *(writes his response on the paper)* Lovely.

Jacob, you have a small idea that relates to this?

S: Um, the boy is trying to snuggle up with his dog.

Danielle: He’s trying to snuggle with his dog? Okay. *(T smiles)* How do you know that? *(prompt)*

S: Because you see bubbles flying. The boy is happy.

Danielle: Okay, so the boy is happy and smiling
During her interview, Danielle explained why she prompted her student to explain his thinking and that the prompt unveiled information for Danielle that was dissimilar to her own thinking.

Danielle: Because to me it didn’t look like he was going to snuggle with the dog so I was wondering where he got that. Because maybe to him there was something in there, so I wanted to know his reasoning. To me, I didn’t think that at all. (interview, 11/29/11)

**Cues.** Cues represented the third most frequently used type of instructional move for helping students understand text. Caitlyn, Danielle, and Eve each used a large amount of cues during their lessons. For Caitlyn, this type of instructional move represented nearly one-third of the instructional moves used during her lessons. She frequently used voice inflection and emphasized certain parts of her explanations to auditorily cue students into important information. In the following examples, Caitlyn repeatedly cued students’ attention to information repeated in the text. They were reading a short story about a character moving to a new home that was surrounded by a large garden.

Caitlyn: So if we look at the first paragraph – we just re-read it – what are they talking about there? Are they talking about the garden, him moving in, or the new home? *(cue to verbal info in text)*

S1: They’re talking about the garden.

Caitlyn: In the *first* paragraph. *(cue to verbal/text info.)*

S2: Moving, the new home. They’re talking about his new home. Moving in.

S3: They’re talking about the new home.

Caitlyn: Why do you say the new home?
S3: Because he waves goodbye to his city apartment and moves everything he owns to the cottage in the suburbs. *(S is reading aloud from the text).* (observation 2, 2/8/12)

During her interview, Caitlyn explains her thinking behind the process of cueing students’ attention to the text as a way of determining the main idea of a piece of text.

Caitlyn: At that point, I was asking them what were some things that were repeated because I was trying to guide their thinking to what the main idea is. So that’s why I asked them what was repeated. Because typically that’s what the main idea usually does. It’s the same thing repeated over and over. *(interview, 2/8/12)*
Discussion

This chapter provides a discussion of the findings from this study’s investigation of teachers’ questioning practices and instructional moves during small group reading instruction in fourth and 5th grade classrooms where students with LD were included. The observation of teachers’ questioning practices revealed a heavy emphasis on literal elicitation questions. In fact, literal elicitation questions were asked most frequently, were used to check students’ understanding of the story, and served as scaffolds to help students process higher level questions. Not only did teachers use questions as scaffolds during small group reading instruction, but they also used a variety of other instructional moves to support students as they comprehended fictional narrative text. Teachers were very persistent in their use of instructional moves as they accepted students’ approximate answers to comprehension questions, incorporated processing time, rephrased questions, prompted, cued, modeled, and provided explanations for students. The use of prompts, cues, models, and explanations has been noted to foster learning during small group teacher-led instruction (Frey & Fisher, 2010). Such instructional moves facilitated the comprehension processes for students with LD during small group reading instruction. Students’ incorrect or incomplete answers to reading comprehension questions were not accepted as final. Teachers used scaffolds to help them achieve correct or complete answers, and rarely responded by informing students of the correct answer.

As students with LD are educated in general education settings at increasing rates (U.S.D.E., 2011), it is important to understand the type and quality of instruction they are exposed to. This study provides a snapshot of what a small group of general educators are doing to support students, including African American students with LD, during comprehension instruction. It is critical that we begin to determine if general education teachers are using
effective practices in inclusive settings, since high quality comprehension instruction is essential to supporting the needs of all learners, including students with LD (Swanson, 2008). Given the flexibility that small group instruction provides to teaching reading in a differentiated way (Ford & Opitz, 2008), it appears to be a natural place for meeting the needs of exceptional learners and indeed teachers were observed supporting students in these small groups. In fact, research boasts of the benefits of small group instruction showing that strategies taught during small group instruction can at times be more effective than one-on-one tutoring (Klingner, Vaughn, Arguelles, Hughes & Leftwich, 2004). Small group instruction allows teachers and specialists to implement tiers or levels of interventions for students with LD at increasingly more intensive and flexible levels of support (O’Connor, Harty, & Fulmer, 2005). The level of teacher support can be calibrated depending upon students’ responses, needs, and/or strengths, which teachers in this study indicated that they did. Hollenbeck (2011) found guided questions during small group instruction helpful in that they can clear up misconceptions and clarify student thinking. Even though the small group setting used by teachers in this study allowed for greater opportunities to push students’ comprehension, the fact remains that teachers relied most heavily on elicitation or recall questions.

**Questioning During Small Group Reading Instruction**

In this study, teachers asked comprehension questions quite often throughout their small group lessons that included one or more students with LD. In fact, consistent with previous studies, the vast majority of teacher-student interactions consisted of teacher questioning with teachers asking questions at a rapid rate (Chin, 2007; Marzano, Pickering, & Pollock, 2001). Such a frequent and rapid rate of posing questions limited the amount of processing time for
students in the group, particularly for those students with LD included with their general education peers.

Furthermore, the types of questions posed by teachers varied depending upon the context of the lesson. The types of questions that teachers asked depended on the lesson’s objective, comprehension strategy being taught, teachers’ knowledge of their students previous use of the strategy, and how students responded during the lesson to teachers’ reading comprehension questions. An overriding factor that seemed to drive the type of question asked was the purpose of the lesson. Research suggests that it is not just the type of question that matters, but how the teacher uses a line of questioning to help students arrive at some type of understanding (Newton, 2002). Good questioning skills has been referred to as “asking the right question at the right time to achieve your goal” (Newton, 2002, p. 6). Matching the type of question with the purpose for the lesson was one type of pattern that emerged during this study. For example, both of Brooke’s lessons focused on teaching students to make inferences informed by their own knowledge and clues from the text. It is not surprising then that Brooke asked the greatest percentage and amount of divergent questions, questions that require students to generate new understandings based on existing knowledge or information.

The rationales given for why teachers asked particular questions were unique to the focus of the lesson and expected lesson outcomes, and were less dependent on the type of fictional narrative genre used. Teachers did not comment on the type of text or its characteristics when explaining instructional rationales. Instead, they spoke of purposes such as helping students clear up misunderstandings (divergent questions), constructing their own meaning (activating prior knowledge questions), understanding the reasons why things happened (inferential elicitation
questions), and slowing students down to process particular details of text (literal elicitation questions).

The teachers relied most heavily on elicitation questions during small group reading instruction. Elicitation questions (literal and inferential) comprised almost half of the reading comprehension questions posed by the teachers during small group instruction. Even though the small group setting used by teachers allowed for greater opportunities to push students’ comprehension, the reality was that teachers relied most heavily on elicitation or recall questions. This finding was consistent with previous studies on teacher questioning. Literal elicitation questions – questions that elicit a right or wrong factual answer - were asked most often indicating that teachers focused mostly on low level, knowledge oriented questions (Ornstein, 1987; Cazden, 2001). Little appears to have changed in the past 25 years when it comes to the major type of comprehension questions teachers ask during instruction.

However, the comprehension questions used by teachers served a dual function: to assess students’ understanding of text and to foster student learning as teachers guided students to construct meaning from text. Although teachers in this study used literal elicitation questions at a frequency rate that is consistent with previous research, they used the questions in unique ways. The multiple functions of the literal elicitation questions by teachers gave this questioning category more than a robotic question and answer format. When asked, teachers discussed their intent for using literal elicitation questions within a cyclical approach that fosters student understanding of text. Teachers indicated they used literal elicitation questions to help students find text support for reading strategy lessons. For example, in lessons that focused on inferring, teachers used literal questions to cue students’ attention to details of text or clues needed to construct an inference. Since there is a metacognitive layer to strategy instruction when the
teacher instructs students on how, when, and why strategies are effective (Afflerbach, Pearson, & Paris, 2008) “so that learning becomes deliberate, self-directed, and self-regulated” (Jitendra, Burgess, & Gajria, 2011, pg. 136), these types of questions may help students develop their independent use of the strategy. Such an instructional practice can be very beneficial to students with LD who have difficulty flexibly applying previously learned strategies to comprehend text (Gersten, Fuchs, Williams, & Baker, 2001).

Another instance where literal elicitation questions were heavily used occurred during a lesson on character traits. During this lesson, literal elicitation questions were posed to students as they searched for text to support the character trait they had decided upon for the novel’s main character. Given that all of the lessons focused on reading comprehension strategies and skills, literal elicitation questions contributed to the goal of helping students practice or apply comprehension strategies. While literal elicitation questions were used to provide factual recall information from the stories students read, they may serve as building blocks to help students achieve answers to more difficult, higher level types of questions such as divergent or heuristic questions.

The essence of good teaching includes questioning from four different categories: sophistication (high or low level), cognitive hierarchy (knowledge to evaluation), direction (convergent to divergent), and valuing (personal or subjective questions) (Ornstein, 1987). Although teachers were observed using a variety of question types, the overreliance on low level type questions is still a concern. Questions that elicit information about text should be integrated with interpretive questions that unveil deeper meanings within text and questions that evaluate understandings beyond the text (Fountas & Pinnell, 2006; Morgan & Saxton, 2006). The power of questioning can have a far extending reach as it is used metacognitively to help students check
in on and monitor their understanding (Miller, 2002; Wong & Jones, 1982) or inventively to stimulate imaginative thought (Frey & Fisher, 2010). Open-ended questions within a reader’s response format also promote higher-level thinking (Erodan & Campbell, 2008; Parker & Hurry, 2007). Morgan and Saxton (2006) advocate for questions that “have the power to generate vivid ideas, spur the imaginations, and provoke both teacher and student into a shared, creative learning experience” (pg. 17).

Teachers need to be encouraged to ask questions that stimulate imaginative thought, along with other open-ended questions that promote Rosenblatt’s (1986) aesthetic stance and enhance transactions between students and text. Rosenblatt’s (1993) transactional theory stresses the importance of the reader, the text, and the context as pivotal in readers constructing meaning from text. The interplay of each of these forces brings about a change in the reader, hence the transactional nature of reading. During small group reading instruction, including those groups that include students with LD, teachers play a vital role in mediating such transactions. The multiple uses of literal elicitation questions along with teachers’ comments about intentionally posing more inferential questions after students have read text shows the intentionality of the types of questions posed during small group reading instruction. This also gives a bit of insight into the decisions teachers make as they try to move away from traditional uses of factual recall questions. They have not however made it to the level of transactional theory discussed in Rosenblatt’s research (e.g. Rosenblatt, 1986, 1993).

Although the type of teacher questioning found in this study were not dialogic in nature or resemble the type of constructive discussions advocated for in Rosenblatt’s research, the teachers made occasional attempts to integrate other types of higher order thinking questions throughout their small group reading lessons. Recognizing the need to developmentally progress
towards more higher order thinking questions, a subcategory of inferential elicitation questions were identified from the set of questions that teachers asked. Inferential elicitation questions require students to infer details from the text that are not explicitly stated. Although this category of questions still required students to recall information from the text, it does require a slightly higher level of cognition as students use convergent thinking to respond to how and why questions about text details. Next to literal elicitation questions, teachers used inferential elicitation questions most often. Teachers posed such questions intentionally when they focused on pushing students’ understanding of text. Teachers stressed the importance of inferential questions in assessing students’ understanding of why things happened the way they did in the text, and to gauge how well students critically thought about the details of text. Another example of the unique functions of elicitation questions was revealed when one teacher, Danielle, used inferential elicitation questions to have her students practice a previously taught reading strategy (finding the main idea) before she moved on to a different but related comprehension strategy (supporting details).

In light of these findings, it is important to consider how these teachers’ questioning styles can benefit students with LD. Students with LD typically need additional support when it comes to understanding the type, time and purpose for using particular comprehension strategies after they have been taught (Gajria, Jitendra, Sood & Sacks, 2007; Gersten, Fuchs, Williams, & Baker, 2001). Teachers in this study used targeted questions to promote active reading for their students with LD (Wong, 1979) and provided the type of guidance necessary for helping students with LD flexibly use reading comprehension strategies. During small group reading, teachers interacted with their students (including those with LD) as they processed narrative text, and reported providing additional supports to groups where students with LD were included. Much of
what was observed in these small groups was aligned with Swanson’s (1999) recommendations regarding directed questioning, teacher modeling, group instruction, and strategy cues as methods that yield greater effects on students’ comprehension; thus indicating that small group reading instruction was a useful setting for providing this type of support for students with LD.

**Teachers’ Highly Supportive Instructional Moves**

Analyzing ways that teachers respond to students’ incorrect or incomplete answers to reading comprehension questions can help us see shifts in teacher questioning from the robotic initiate-respond-evaluate questioning patterns of the past (Cazden, 2001; Reid, 1998) towards questioning patterns that inform teachers of student understanding and support comprehension. Questions can be used to both check student understanding and guide student thinking to answer more complex questions. Instructional moves such as prompts, cues, questions, and direct explanations/modeling, describe teacher responses to students’ incorrect or incomplete answers to reading comprehension questions (Frey & Fisher, 2010). Furthermore, teachers often began and ended an instructional move cycle with a question, and adjusted the type of scaffold based on their students’ responses (Frey & Fisher, 2010). These instructional moves were very organic in that they were not pre-planned. In fact, they occurred in the moment, since teachers could not predict with certainty students’ responses to their reading comprehension questions. Given that reading is a two-way transactional process between the reader and the text (Rosenblatt, 1983), it is essential that teachers support students’ comprehension of text with necessary instructional supports. Since this transaction involves “a reader and a text at a particular time under particular circumstances” (Rosenblatt, 1983, p. 268), the success of these instructional supports is inherently dependent upon teachers’ knowledge of their students as readers. The teachers in this
study spoke extensively of the strengths, needs, interests, and academic progress of the students with LD included in their classrooms.

A common instructional move cycle found in this study was: prompting students to do the cognitive work, cueing students’ attention to where information/answers could be found, posing a leading question, then giving an extremely clear or thorough explanation which leads students to the correct answer. When teachers had students with LD included in their small groups, they incorporated additional instructional supports (processing time, praising students’ approximations, rephrasing questions). In fact, teachers explained differences in the readability level of text that they used for various groups in their class, depending on students’ abilities and level of performance. Groups with struggling readers and students with LD tended to have text at lower readability levels and included picture support. Even though all groups received reading instruction on comprehension strategies, students performing at lower levels received easier text, picture support, additional time, and scaffolds during the lesson. Such additional supports were found in Rodgers’ (2004) study of the types of teacher-students interactions that scaffold reading performance.

When it came to providing scaffolds that helped students comprehend text, the teachers can be fairly and affectionately described as stubborn. When students did not respond correctly or completely to teachers’ reading comprehension questions, teachers engaged students in a variety of prompts, cues, models, explanations, and rephrased questions. They also provided processing time, and praised and accepted students’ approximations (Many, 2002). Providing the correct answer was the least frequently used type of teacher response (Rodgers, 2004), and it was used in some instances as a time saver to move on to other important parts of the small group lesson. In fact, during her interview one teacher, Alyssa, took quite a bit of time to recover from
her shock at providing a student with a correct answer to a word that he was decoding during reading. In addition, a couple of the teachers emphasized the importance of teaching students to independently use strategies. It was pleasant to observe teacher persistence during this study as they worked diligently to help students comprehend text. Such instructional moves were also grounded in teachers’ intimate knowledge of their students. During interviews, teachers explained why they provided specific instructional supports as they linked it to prior knowledge of their students’ cognitive abilities, standardized assessments, personal interests, learning patterns, performance during previous small group lessons, and other information obtained through daily interactions. Studies have found that caring, persistent, and actively engaged teachers are especially supportive of African American students with LD since such actions foster individual resiliency through data-informed instruction (Jones, 2011; Murray & Naranjo, 2008; Paterson, 2007).

Although teachers differed on the frequency and types of instructional moves that they used to scaffold student learning, the learner was the constant part of the equation when they explained why they modeled, explained, cued students’ attention, gave a correct answer, or even ignored a student’s response. Common phrases found in their rationales centered on getting the student to understand why or construction meaning. This suggests that teachers made decisions based on their assessment of their students understandings or grasp of the material during the lesson. This type of “on-the-go” teacher is organic, cannot be planned for, and is highly dependent on the students’ responses. Decisions about instructional moves to use were also fluid and based on the level of understanding students demonstrated at that moment. With the exception of Caitlyn, who used a variety of instructional moves, individual teachers did; however, tend to rely more heavily on one particular type of instructional move.
The teachers’ instructional decisions made in this study can be described as both intentional and flexible. They were intentional based on teachers’ knowledge of the students and grade level expectations in reading achievement. During the teacher questionnaire, all of the teachers shared specific information about their students with LD included in their class as well as an overriding concern that these students were not performing at grade level. Teachers’ instructional decisions were flexible because many of them were based on their students’ responses. Teachers varied in their use of different types of questions because the purposes for their lessons and expected lesson outcomes varied. The types of questions initially posed seem to be closely related to the lesson objectives and the types of comprehension strategy teachers were instructing students to use. Their continued line of questioning and other instructional moves, however, could have been informed by their intimate knowledge of their students’ strengths, areas of need, reading abilities, and previous performance on measures of reading achievement. On a similar note, Paterson (2007) studied the instructional decisions of teachers who had students with learning difficulties included in their general education classrooms. He also found that teachers relied heavily on their academic and non-academic knowledge of individual students when making instructional decisions during lessons (Paterson, 2007).

When teachers reflected on their rationales for particular instructional decisions made during the lesson, they spoke about individual students learning patterns, and focused on the responses of their students. Eve spoke of one of her students as ‘getting mixed up’ during the lesson when she decided to model and explain the text further for that student. Caitlyn said she ignored a student’s response to give her time to think about how to address it and clear up that students’ misunderstandings. Brooke’s line of questioning to her students at the beginning of a lesson confirmed the need for additional practice with making inferences. In her interview, she
shared that their shared understandings put them in an ideal place for a lesson that would make those understandings more cohesive. Danielle directly asked a student for his rationale for a response. She said she wanted to better understand what he was thinking. Alyssa purposely prompted a particular student to make sense of the text based on her previous interactions with him during one-on-one reading conferences. Instructional decisions that are based upon the student responses are highly supportive of individual students’ strengths and needs, and build upon their current levels of understandings.

**Implications for Practice**

Instruction in a small group setting allows for greater opportunities to push students’ comprehension as well as time for increased teacher-student interactions. However, the teachers in this study relied most heavily on elicitation or recall questions, and posed reading comprehension questions at a fast rate (2.9 questions per minute), dramatically limiting students processing time. One could ponder if such rapid fire questioning gives students with LD, who have difficulty processing text, enough time to process questions intended to help them comprehend text. Processing time has been recognized as a valuable but difficult to implement instructional tool (Romano, 2010). Romano (2010) suggests strategies for teachers to help them incorporate more processing time for students such as having students write their responses before being asked to share their responses aloud. Research dating back to the late 1980’s states the benefits of wait time as: improved teacher questioning skills, active student learning in the classroom, stimulated inquiry, higher cognitive learning (Johnson, 1990; Rowe, 1987b; Tobin, 1987). Bracey (1987) suggests that teachers trained to incorporate additional wait time give themselves more time to think of more complex questions, talk less frequently, and ask fewer questions in general. Perhaps incorporating more processing time would have led to different
frequency and types of questioning styles in this study. Consequently, there is a need for additional research on incorporating processing time during small group instruction to enhance students’ comprehension – especially where students with LD are included – and how best to prepare teachers to do this.

In addition, both pre-service and in-service teachers can greatly benefit from professional development on small group comprehension instruction using teacher scaffolding techniques for students with LD. Small group instruction provides an excellent venue for differentiating instruction for the increasingly diverse student population in our schools, and has been especially effective for students with LD (Foorman & Torgesen, 2001; Vaughn, Hughes, Moody, & Elbaum, 2001; Vaughn et al., 2003). Implicit within these professional development efforts is communicating to teachers differences between ‘telling’ and ‘teaching’. As opposed to telling which relies heavily on lecture and application activities, teaching includes modeling, guided practice, and effectively applying instructional scaffolds during instruction based on the strengths, needs, and responses of students. Alongside their peers, the students with LD in this study received guidance and additional opportunities to practice using reading comprehension strategies that were taught during whole class instruction and previous small group lessons. This type of instruction may be vital to helping students with LD determine when, why, and how to use previously taught comprehension strategies (Robertson, Priest, & Fullwood, 2001; Swanson & DeLaPaz, 1998). Students’ incorrect or incomplete responses to teachers’ targeted questions helped general educators assess student understanding and make decisions as to which instructional scaffolds (e.g., prompts, cues, models) would be beneficial to helping students understand text. In order to keep pace and be responsive to the current trend of students with LD being educated in general education classrooms for the majority of their school day (McLesky &
general educators need professional development on an intersection of instructional scaffolds, questioning techniques, and explicit comprehension strategy instruction during small group instruction, particularly for students with LD who are in dire need of differentiation (Schumm, Moody, & Vaughn, 2000; Fuchs & Vaughn, 2012).

**Implications for Further Research**

While research shows us the benefits of small group reading instruction (Ford & Opitz, 2008) and its increasing popularity in initiatives such as the RTI movement (Vaughn & Roberts, 2007), additional studies need to be conducted on small group reading instruction targeting reading comprehension particularly when students with LD are involved. Teachers can use small group instruction as a strategy for responding to the needs of students with LD and severe reading problems (Schumm, Moody, & Vaughn, 2000) to address their reading comprehension difficulties including: metacognition, recalling details, making inferences, drawing conclusions, and predicting (Sencibaugh, 2007). These studies should target specific populations of students, such as African American students and students with LD, who have historically experienced negative achievement outcomes. Small group reading instruction studies should have the added emphasis on reading comprehension given the limited amount of empirical research studies found addressing African American students and comprehension, and the low-quality of comprehension instruction found for students with LD (Swanson, 2008).

A descriptive study reporting that there are indeed multiple ways that teachers use questions during small group instruction to help students comprehend text can open the floodgates for other types of studies informing the public on the benefits of small group instruction and questioning for comprehension for African American students with LD. To fill gaps in extant research, future empirical studies can go in many more directions. In order to
connect the types of instructional scaffolds used by teachers during small group instruction, an immediate next step can be conducting correlational or experimental studies that assess to the impact of small group teacher-led comprehension instruction on student achievement over time. To gain better understandings on the intensity level of instruction needed for students with LD, comparative studies can be conducted to highlight differences between instructional scaffolds and teacher questioning used with small groups of students with and without LD. Eventually, future research would be directed at measuring the impact of comprehension interventions for African American students with LD during teacher-led small group instruction.

**Limitations**

Three primary limitations of this study were the small, purposefully selected sample of teachers, the limited number of observations, and the inability to obtain specific data regarding students with LD. Teachers from schools where the researcher had a previous working relationship with the administrator were participants in this study, thus may not be representative of teachers as a whole in the district. While selecting specific cases for in depth study of a phenomenon enhances qualitative inquiry, a purposefully selected sample – which is also dependent upon volunteerism – limits the sample to a very specific subgroup and unique population. In addition, there were only two observations conducted per teacher, thereby limiting the depth of the data obtained. Additional classroom observations could have enhanced the trustworthiness of data, and give an even more accurate representation of typical classroom practice. Additional classroom observations also serve to diminish reactivity effects of having an outsider observe instruction. Due to approval requirements, the teachers were directed not to identify which students had LD, which limited the researcher’s ability to pinpoint responses made by students with LD, analyze their work samples, review their IEPs, or even speak with
them to get a better sense of their academic progress and the appropriateness of lessons for them. Overall though, the goal of this study, to view and analyze the practices of a small group of teachers in depth, was accomplished within these restrictive parameters.

**Concluding Remarks**

African American students are overrepresented in special education placements (Artiles, Harry, Reschly, & Chinn, 2002; Skiba, et al., 2002; Harris, Brown, Ford, & Richardson, 2004), and perform academically far below their ethnic peers (Lutkus, Grigg & Donahue, 2007). Duren-Green (2005) suggests as many as nine reasons for the overrepresentation of African American students in special education classrooms, including: insufficient instructional programs, teacher perceptions and attitudes, and ineffective referral and classification procedures. In fact, the overrepresentation of African American students in high incidence disabilities such as learning disabilities is well-documented in the literature (Artiles, Harry, Reschly, & Chinn, 2002; Skiba, et al., 2002; Harris, Brown, Ford, & Richardson, 2004). African American students with and without disabilities perform significantly below their White peers. Achievement gaps between black and white students across the 11 districts range from an 11-point difference in the District of Columbia to a 53-point in the cities Los Angeles and Atlanta (Lutkus, Grigg & Donahue, 2007). Sixty-six percent of the 4th grade students with disabilities from the TUDA districts performed below the basic level on the NAEP assessment. Reading achievement at the basic level for 4th grade includes: understanding the overall meaning of grade level text, connecting to the text, and making simple inferences (Lutkus, Grigg & Donahue, 2007). Researchers recommend interrupting such a negative achievement trajectory at the classroom level by situating learning within a literacy collaborative, using enabling texts and culturally responsive teaching (Ladson-Billings, 2001; Gay, 2002; Tatum, 2008; Fisher, 2009; Tatum, 2009). It is data
such as these mixed with recommended instructional practices that call researchers, school reformers, and policy makers to action.

In an odd and unfortunate way, discussions about ability, ethnicity, and socioeconomic status is interwoven together into the fabric of education in the United States. When it comes to African American students educated in urban environments, it is difficult to address one factor without explaining its relationship to the others. In most states, a child who has completed a kindergarten through twelfth grade education is expected to be college and career ready as a literate person of the 21st century capable of competing in a global economy (Illinois State Board of Education, 2010). Outcomes, however, for African American students have been far from positive. If these findings are viewed through an additional lens of ethnicity, the African American students with LD taught during this study’s small group instruction were direct beneficiaries of developmentally appropriate modeling and guided practice. In a study on factors and processes associated with school completion among high-risk urban youth, Murray and Naranjo (2008) identified resilience factors related to individual students, their family, their peers, and their teachers. Caring and persistent teachers, who used knowledge of their students and developmentally appropriate instructional practices, provided instrumental support through modeling and guided practice to African American students with LD.

This study provides examples of the high quality comprehension instruction for African American students with LD not found in previous research. Teachers recognized the need for and applied additional instructional scaffolds to help fill in gaps between students’ current uses of comprehension strategies and the expected grade level usage. Teachers used detailed knowledge of their students to calibrate the types and amount of support given during small group instruction. And teachers maintained a focus on comprehension instruction throughout the
lessons, leaving decoding instruction for other times during the literacy block. Future endeavors need to be put in place in both research and practice to promote this type of small group reading comprehension instruction for African American students with LD.
Appendix A: IRB Approval Letter

UNIVERSITY OF ILLINOIS AT CHICAGO

Office for the Protection of Research Subjects (OPRS)
Office of the Vice Chancellor for Research (MC 672)
203 Administrative Office Building
1737 West Polk Street
Chicago, Illinois 60612

Approval Notice
Initial Review (Response To Modifications)

September 19, 2011

Valerie Jones, MA
Special Education
1040 W Harrison Street
M/C 147
Chicago, IL 60612
Phone: (773) 639-8916 / Fax: (773) 734-7170

RE: Protocol # 2011-0696
“Small Group Instruction for Urban Students with Learning Disabilities”

Dear Ms. Jones:

Your Initial Review application (Response To Modifications) was reviewed and approved by the Expedited review process on September 15, 2011. You may now begin your research.

Please note the following information about your approved research protocol:

Please remember to submit approval from the Research Review Committee prior to accessing/analyzing records or recruiting/enrolling subjects at sites. Also note that the UIC IRB will hold the approval letters from school principals (since they are usually required after RRC approval) pending receipt of the RRC approval. A copy of RRC approval must be accompanied by an Amendment form when submitted to the UIC IRB.

Protocol Approval Period: September 15, 2011 - September 13, 2012
Approved Subject Enrollment #: 10
Additional Determinations for Research Involving Minors: The Board determined that this research satisfies 45CFR46.404, research not involving greater than minimal risk.
Performance Site: UIC
Sponsor: None
Research Protocol:
   a) Small Group Instruction for Urban Students with Learning Disabilities; Version 1;
Recruitment Materials:

a) Recruitment Flyer; Version 2; 09/05/2011
b) Teacher Screening (no footer)

Informed Consents:

a) Consent Form; Version 2; 09/05/2011
b) A waiver of documentation of consent has been granted under 45 CFR 46.117 and an alteration of consent has been granted under 45 CFR 46.116(d) for recruitment purposes only (minimal risk, consent will be obtained from subjects using a document including all of the elements of consent at enrollment)

Assent:

a) A waiver of child assent and parental permission has been granted under 45 CFR 46.116(d) has been granted for children as secondary subjects of this research (minimal risk, subjects may be at best indirectly identifiable, it will be impracticable to obtain permission and assent from each minor student involved in the teacher subject's classroom)

Parental Permission:

a) A waiver of child assent and parental permission has been granted under 45 CFR 46.116(d) has been granted for children as secondary subjects of this research (minimal risk, subjects may be at best indirectly identifiable, it will be impracticable to obtain permission and assent from each minor student involved in the teacher subject's classroom)

Your research meets the criteria for expedited review as defined in 45 CFR 46.110(b)(1) under the following specific categories:

(6) Collection of data from voice, video, digital, or image recordings made for research purposes., (7) Research on individual or group characteristics or behavior (including but not limited to research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Please note the Review History of this submission:

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<td>09/15/2011</td>
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Please remember to:

➔ Use your research protocol number (2011-0696) on any documents or correspondence with the IRB concerning your research protocol.
Review and comply with all requirements on the enclosure, "UIC Investigator Responsibilities, Protection of Human Research Subjects"

Please note that the UIC IRB has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

Please be aware that if the scope of work in the grant/project changes, the protocol must be amended and approved by the UIC IRB before the initiation of the change.

We wish you the best as you conduct your research. If you have any questions or need further help, please contact OPRS at (312) 996-1711 or me at (312) 996-2014. Please send any correspondence about this protocol to OPRS at 203 AOB, M/C 672.

Sincerely,

Sandra Costello
Assistant Director, IRB # 2
Office for the Protection of Research Subjects

Enclosures:

1. UIC Investigator Responsibilities, Protection of Human Research Subjects
2. Informed Consent Document:
   a) Consent Form; Version 2; 09/05/2011
3. Recruiting Materials:
   a) Recruitment Flyer; Version 2; 09/05/2011
   b) Teacher Screening (no footer)
4. Data Security Enclosure

cc: James V. Kahn, Special Education, M/C 147
    Marie Tejero Hughes (faculty advisor), Special Education, M/C 147
Appendix B: Teacher Screening

Teacher: ______________________________
School Name: _______________

### INCLUSIONARY CRITERIA

1. Do you teach in grades 4 or 5?

2. Do you teach small groups of students during reading instruction? (Note: A small group is 8 or fewer students.)

3. Is at least one student with a learning disability included in your small group reading instruction?
Appendix C: IRB Consent

University of Illinois at Chicago
Research Information and Consent for Participation
Small Group Instruction for Urban Students with Learning Disabilities

You are being asked to participate in a research study. Researchers are required to provide a consent form such as this one to tell you about the research, to explain that taking part is voluntary, to describe the risks and benefits of participation, and to help you to make an informed decision. You should feel free to ask the researchers any questions you may have.

Principal Investigator Name and Title: Valerie Jones, PhD Student
Department and Institution: University of Illinois at Chicago, Special Education Department
Address and Contact Information: 1040 W. Harrison Street, Chicago, Illinois 60612; vgue2@uic.edu; 773-639-8916
Faculty Sponsor: Dr. Marie Tejero Hughes, 1040 W. Harrison Street, M/C 147, Chicago, Illinois 60612; marieth@uic.edu; 312-413-1623

Why am I being asked?
You are being asked to be a participant in a research study about ways that teachers provide reading instruction to students during small group reading instruction.

You have been asked to participate in the research because you teach 4th or 5th grade students, use small group instruction to teach reading, and have at least one student with a learning disability in one of your small groups.

Your participation in this research is voluntary. Your decision whether or not to participate will not affect your current or future dealings with the University of Illinois at Chicago. If you decide to participate, you are free to withdraw at any time without affecting that relationship.

Approximately 10 teachers may be involved in this research.

What is the purpose of this research?
The purpose of this research is to learn more about how teachers provide reading instruction for students with different abilities, and to learn more about how teachers make the instructional decisions during small group reading instruction.

What procedures are involved?

Leave box empty - For office use only
This research will be performed at your school over the next few weeks. Observations will occur in your classroom during the school day. The teacher interview and questionnaire will take place in your classroom, or at another location in the school building that is comfortable to you. This will occur outside of your [ ] work hours.

The study procedures include 1 questionnaire, 2 classroom observations, and 1 teacher interview.

- **Questionnaire**: This questionnaire will be completed before the first classroom observation, and will last approximately 20 – 30 minutes. You will be asked questions about your small group reading instruction.

- **Observations**: There will be 2 classroom observation visits, occurring on two different school days, scheduled at least one week apart. Each of the classroom observations will take about 20 to 40 minutes (your entire small group instructional period). The two classroom observations will be scheduled by you during your regular small group reading instruction time for a small group that has at least one student with a learning disability in the group. The same small group will be observed during the second visit as well. During the observation, you will be asked to wear a digital voice recorder to audio-tape your small group lesson instruction. I will take notes during your lesson on your classroom environment and nonverbal interactions that occur during the lesson which cannot be captured on audio-tape (such as pointing to a picture, nodding, etc.). The audio-recordings will be destroyed after a written transcript has been made.

- **Interview**: There will be one teacher interview. It will take place on the same day as the 2nd observation, but no later than 48 hours afterwards. The interview will be audio-taped and will last 45 to 60 minutes. This audio-recording will also be destroyed after a written transcript has been made. We will listen to the audio-tape from that day’s lesson together, pausing the audio-recording at various spots. During the pauses, you will comment on the lesson and your decision making process. I will provide prompts to help with this discussion.

**What are the potential risks and discomforts?**

There is only a minimal chance of risk.

To the best of our knowledge, the things you will be doing have no more risk of harm than you would experience in everyday life. A risk of this research is a loss of privacy (revealing to others that you are taking part in this study) or confidentiality (revealing information about you to others to whom you have not given permission to see this information).

All responses will be kept confidential and your name will not be included on any of the data that will be collected.

**Are there benefits to taking part in the research?**

Taking part in this research study may not benefit you personally, but we [researchers] may learn new information about teacher decision making and small group reading instruction things that will help others.

**What other options are there?**

You have the option to not participate in this study.
What about privacy and confidentiality?
The people who will know that you are a research subject are members of the research team. Otherwise information about you will only be disclosed to others with your written permission, or if necessary to protect your rights or welfare or if required by law.

Study information which identifies you and the consent form signed by you will be looked at and/or copied for checking up on the research by the University of Illinois at Chicago’s Office for the Protection of Research Subjects (UIC OPRS). The State of Illinois auditors may also monitor study information.

When the results of the research are published or discussed in conferences, no information will be included that would reveal your identity.

The data collected during the questionnaire, observations, and interview will be kept confidential and will not contain any of your identifying information. Audio-tapes will be labeled with your identification number, and will be destroyed after transcriptions are completed. Teacher questionnaires will be shredded at the end of the study. All electronic files will be password protected and stored on a laptop accessible by the PIs fingerprint. All data will be kept in the researcher’s locked file cabinet in her office. The list linking your name with your teacher identification code will be kept in a locked file cabinet in the researcher’s locked home office. The list will be destroyed at the end of the study.

Will I be reimbursed for any of my expenses or paid for my participation in this research?
You will be given $50 after completing the interview after the second observation for your time spent. You will also receive classroom materials valued up to $200.

Can I withdraw or be removed from the study?
If you decide to participate, you are free to withdraw your consent and discontinue participation at any time. You can contact me at vgue2@uic.edu at any time if you would like to withdraw from the study. You have the right to leave a study at any time without penalty.

The Researchers also have the right to stop your participation in this study without your consent if you did not schedule an observation or interview after three attempts.

Who should I contact if I have questions?
Contact the researchers Valerie Jones, Doctoral Student at vgue2@uic.edu or Dr. Marie Tejero Hughes, Associate Professor at (312) 413-1623 or marieth@uic.edu:
- if you have any questions about this study or your part in it,
- if you have questions, concerns or complaints about the research.

What are my rights as a research subject?
If you feel you have not been treated according to the descriptions in this form, or if you have any questions about your rights as a research subject, including questions, concerns, complaints, or to offer input, you may call the Office for the Protection of Research Subjects (OPRS) at 312-996-1711 or 1-866-789-6215 (toll-free) or e-mail OPRS at uicirb@uic.edu.
Remember:
Your participation in this research is voluntary. Your decision whether or not to participate will not affect your current or future relations with the University. If you decide to participate, you are free to withdraw at any time without affecting that relationship.

Signature of Subject or Legally Authorized Representative
I have read (or someone has read to me) the above information. I have been given an opportunity to ask questions and my questions have been answered to my satisfaction. I agree to participate in this research. I will be given a copy of this signed and dated form.

Signature ___________________________ Date ____________

Printed Name ________________________

Signature of Person Obtaining Consent ___________________________ Date (must be same as subject’s) ____________

Printed Name of Person Obtaining Consent ___________________________
Appendix D: Teacher Questionnaire

**TEACHER DEMOGRAPHIC DATA**

1. How many years have you been a teacher? ________________

2. How many years have you been a teacher at this school? ________________

3. What areas are you certified to teach? ________________

4. Name the degrees that you have earned. Please add your major area of study for each degree.
   ________________

5. Do you have an endorsement in reading? ________________

6. Have you taken additional courses in reading? ________________ If so, which courses have you taken.
   ________________

7. Have you achieved National Board Certification? If so, what are you nationally certified in?
   ________________

**CLASSROOM DEMOGRAPHIC DATA**

1. What grade level of students do you teach? ________________
2. How many students are enrolled in your class?

3. How much time per day do you teach reading?

4. How often do you use small groups to teach reading?

5. How many groups do you meet with during a typical reading class period?

6. What is the typical length of time spent with students in a small group?

7. How many students do you generally have in one small group?

8. How do you determine which students are in each of your small groups? (PROMPT: Describe the process that you go through when you decide who will be in which reading group.)

9. Flexible grouping involves changing the students in particular groups based on how students change over time and develop as readers. Do you use flexible grouping throughout the school year?

(If the response is ‘yes’, go to #10. If the response is ‘no’, go to #11.)
10. How do you use flexible grouping? (PROMPTS: How often do you change your groups? How do you decide which student is moved to which group?)

11. Think about the standardized assessment data that you have for your class. What are the general ability levels of the students in your class? (i.e. grade level, instructional reading level)

12. How many students with a learning disability (LD) are included in your class?

13. What are the ages and ethnicity of students with LD in your class?

14. How would you describe, in general, the achievement of students with LD in your class?

15. Name the strengths of the students with LD that you serve?

16. What kind of things are the students with LD in your class interested in reading, doing, or learning about?

17. Name the areas of concern for the students with LD that you serve.
Appendix E: Classroom Observation Field Notes

Teacher ID # _________ Grade: ________________

Small Group Lesson Focus:

Expected Lesson Outcome(s):

Date: ________________  Time: ________________

Number of students present in classroom: ______________

Number of Students in Small Group: _________________

NUMBER OF STUDENTS WITH LD IN SMALL GROUP:

Lesson Start Time: ________________

Description of Classroom’s Physical Environment

•

List of Instructional Charts Posted in the Environment

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<table>
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<th>Time</th>
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Lesson End Time: ______________
Appendix F: Stimulated Recall Interview

Teacher ID # __________  Grade: __________________
Date: ________________  Time: __________________

STANDARD BEGINNING PROMPT: LET’S USE THE NEXT 45 MINUTES OR SO AS AN OPPORTUNITY FOR YOU TO REFLECT ON YOUR LESSON. WE WILL LISTEN TO THE AUDIOTAPE TO HELP WITH THIS PROCESS. FEEL FREE TO STOP IT AT ANY POINT SO THAT YOU MAY ELABORATE ON THE CHOICES YOU MADE THROUGHOUT THE LESSON AND WHY YOU MADE THOSE CHOICES.

The following prompts may be used when the audiotape is paused by either the teacher or the researcher.

• How did you decide what to say/teach here?
• What were you trying to accomplish here?
• What were your thoughts or feelings at this point?
• How do you think your statement/question about ______ affected the students’ learning experience?
• Describe the questioning technique that you used here.
• What did you notice about the book choice for this lesson? Was the text too hard, too easy, or did it seem just right? Please explain.
• What are you learning about your students as readers?
Comprehension Questioning

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Comprehension Questioning


Comprehension Questioning


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Swanson, H. L., & Deshler, D. (2003). Instructing adolescents with learning disabilities:


Comprehension Questioning
Small Group Reading Instruction for Urban Students with Learning Disabilities

Valerie R. Jones

Experience

2011 – Present R.E.A.D. AMERICA LLC Chicago, IL
Senior Literacy Coordinator
• Provide professional development and coaching for teachers on implementing balanced and responsive literacy practices
• Train staff on how to administer and analyze running records
• Use summative and formative assessments to inform coaching sessions and instructional practices

2011–present LOYOLA UNIVERSITY Chicago, IL
Adjunct Faculty
• Instruct undergraduate students in Early Childhood Special Education (CIEP 339: The Exceptional Child)

1995 – 2011 CHICAGO PUBLIC SCHOOLS Chicago, IL
Reading Specialist & Middle School Language Arts Teacher
• Develop & implement reading curriculum for 6th – 8th grade students
• Provide professional development in reading & intervention to staff members
• Collaborate with staff to develop and implement Response to Intervention curriculum

District Literacy Coordinator, CPS Office of Literacy
• Monitored implementation of Striving Readers Intervention Grant
• Provided on-site professional development for Literacy Intervention Teachers, middle school leadership teams, and administrators
• Modeled lessons and coached teachers
• Used data to create and implement year-long professional development plans for 31 Striving Readers schools

Lead Literacy Teacher
• Coordinated literacy program for students in kindergarten through 6th grade
• Provided professional development and coaching for teachers based on areas of needs identified in the SIPAAA
• Used formative and summative assessments to inform instructional practices

Special Education Teacher – Self-contained Classroom
• Instructed students with learning disabilities, emotional & behavioral disorders, cognitive delays, and traumatic brain injury in a self-contained classroom
• Continuously assessed educational plans using various formal and informal tools
• Coordinated Illinois learning standards with each students’ individualized educational goals

2004–2005 KENDALL COLLEGE Chicago, IL
Adjunct Faculty
• Instructed undergraduate students in Early Childhood Education
  - EDU 350 Primary Curriculum and Language Arts Literacy Block
  - EDU 351 Primary Curriculum and Math/Science Block
  - EDU 417 Primary Student Teaching Seminar
• Served as a member of the Early Childhood Advisory Committee

Education
2007 – 2012 University of Illinois at Chicago Chicago, IL
• Ph.D., Special Education
• Full Scholarship
• G.P.A. 4.0

2007 Concordia University River Forest, IL
• M.A., Reading
• G.P.A. 4.0

2001-2002 Lesley University Cambridge, MA
• Primary Literacy Coordinator Training
• Presented at Fountas & Pinnell Guided Reading Institute

1997 Roosevelt University Chicago, IL
• M.A. Early Childhood Education
• Full Scholarship. G.P.A. 4.0

1994 Loyola University Chicago Chicago, IL
• B.S. Special Education
• Dean’s List, G.P.A. 3.7
• Presidential Medallion Recipient

Internships
• University of Illinois at Chicago, Institute for Juvenile Research – 2008
• University of Illinois at Chicago, Reading Clinic: African American Adolescent Male Summer Literacy Institute – 2009
• University of Illinois at Chicago, Instructor (SPED 461: Political and Socio-cultural Perspectives on Special Education) – Fall, 2010

Publications
