DIFFERENCES BETWEEN HIGH AND LOW LEVEL PRESERVICE TEACHERS' INSTRUCTIONAL CONVERSATIONS WITH ELEMENTARY SCHOOL STUDENTS: A GROUNDED THEORY STUDY

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DIFFERENCES BETWEEN HIGH AND LOW LEVEL PRESERVICE TEACHERS' INSTRUCTIONAL CONVERSATIONS WITH ELEMENTARY SCHOOL STUDENTS: A GROUNDED THEORY STUDY

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Shannon Coman Henderson, daughter of Albert Russell Coman and Jane Buffington Coman, was born January 28, 1963, in North Miami Beach, Florida. She graduated Cum Laude from West Georgia College in 1994 with a Bachelor of Science in Education. After working as an elementary school teacher for five years, she received a Master of Education from Auburn University in 2003. In 2005, she received the Outstanding Graduate Student Award in Curriculum and Teaching. She presently is an instructor in the College of Education at Auburn University.

DISSERTATION ABSTRACT

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This grounded theory study attempted to explain variances observed in preservice teachers' instructional conversations with elementary school students using an instructional framework and explicit conversational scaffold. Specifically, the study focused on how 23 preservice teachers engaged in weekly interactive read alouds with second and fourth grade students over a 10 week period. Three transcripts of each preservice teachers' instructional conversations in addition to audio recordings, lesson plans, reflections, and a final paper were coded and analyzed using the constant comparative method of analysis. Data from this study revealed preservice teachers varied very little in their initial instructional conversations before introduction of the

instructional framework and explicit conversational scaffold. Findings also suggested the use of an explicit conversational scaffold raised the level of preservice teachers' instructional conversation during an interactive read-aloud with elementary school students. Further, three indicators were identified as distinguishing between higher and lower levels of conversation. These indicators comprised of a preservice teachers' ability to: (a) engage in effective uptake and responsivity, (b) maintain a "themal coherence" throughout the instructional conversation and (c) model, teach, and reveal use of *situation appropriate* research-based comprehension strategies. Finally, this study provided preliminary support for the use of transcript analysis to facilitate preservice teachers' conversations when engaged in interactive read-alouds with elementary school students.

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CHAPTER I.

INTRODUCTION

In 1997, the 105th United States Congress requested that the Director of the National Institute of Child Health and Human Development, in consultation with the Secretary of Education, convene a national panel to assess current experimental and quasi-experimental research judged to be important in teaching children to read. The resulting document, *The Report of the National Reading Panel* (National Institute of Child Health and Human Development [NICHHD], 2000), currently serves as the primary document of reference in defining what encompasses effective reading instruction. Politicians, administrators, researchers, university faculty, and classroom teachers are caught in the aftermath of its release as they struggle to incorporate the panel's findings and recommendations into schools and teacher preparation programs.

In the area of comprehension instruction, this report identified eight scientifically based strategies as being effective and offering promise for improving comprehension. These procedures consist of: (a) comprehension monitoring, (b) cooperative learning, (c) graphic and semantic organizers, (d) story structure, (e) question answering, (f) question generation, (g) summarization, and (h) multiple strategies teaching (NICHHD, 2000, p. 4-6). The report further stated that when teachers instruct these strategies, students learn the taught strategies and as a result improve their comprehension of a text. However,

while many are scrambling to incorporate the eight instructional procedures into the existing curriculum, an important aspect of the report may be being overlooked. Addressing it as "the most important finding," the panel emphasized that the implementation of strategy instruction is most effective when multiple strategies are "taught over the course of a reading session [providing] a natural basis for teachers and readers to interact over texts" (p. 4-6). In addition, the report maintains "teachers must be skillful in their instruction and must respond flexibly and opportunistically to students' needs for instructive feedback as they read" (p. 4-7).

My return to graduate school coincided with the release of *The National Reading Panel Report* (NICHHD, 2000). My graduate work was preceded by several years of teaching reading to first and second grade students in a lower socio-economic-status public school setting in the southeastern United States. In collaboration with my mentor professor, we began to explore ways to teach and implement the eight scientifically based comprehension strategies while also providing an instructional framework and explicit conversational scaffold for our preservice teachers to use as they learned how to support interactions with readers over text. Specifically, we modeled and facilitated implementation of a K-W-L procedure (Ogle, 1986) to structure our preservice teachers' conversations during interactive read-alouds. Instead of discussing what students Know, Want to Learn, and Learned, we invited preservice teachers and their students to share what they Wondered, what they Learned, and how they used what they Knew as they paused periodically to reveal their thinking about text.

During weekly reflections on our own teaching, along with reflecting upon the teaching of our preservice teachers, my mentor professor and I discussed and refined

aspects of our developing instructional framework. This instructional framework highlighted both instructional and conversational elements, and used a modified version of Ogle's (1986) K-W-L as an explicit conversational scaffold to structure preservice teachers' conversations with students. As our work progressed over the next two years, we observed marked differences in our preservice teachers' abilities to engage in instructional conversations with their students as measured by observation and transcript analysis. Despite our efforts to address the inconsistencies in preservice teachers' instructional conversations by employing an instructional framework and explicit conversational scaffold (Duffy et al., 1987), we found that the differences in conversations persisted.

Need for the Study

Research has revealed that comprehension of effective readers is an active and strategic process (NICHHD, 2000; Pressley & Afflerbach, 1995) and that skillful readers possess a repertoire of strategies that they can apply in flexible ways, depending on the text and the context of the reading task (Baker & Brown, 1984; Garner, 1987). Findings further support that in order to be strategic a reader must be able to employ strategies independently during the reading process. Unfortunately, most so-called comprehension instruction does little to develop independent and skillful readers.

Durkin's (1978/1979) landmark study documented most classroom talk follows an initiate, respond, and evaluate pattern (Cazden, 1988; Mehan, 1979). In this model the teacher initiates a conversation by posing a question, the student responds, and then the teacher evaluates the response based upon pre-determined criteria. Disguised as

comprehension instruction when applied to reading, this discourse pattern reveals teachers' *evaluation* of students' comprehension of a particular text rather than *teaching* students strategies for comprehending the particular text and how those strategies could be applied to subsequent texts. Numerous follow-up studies (Pearson & Dole, 1987; Pearson & Fielding, 1991; Pressley, Johnson, Symons, McGoldrick, & Kurita, 1989) have investigated the effectiveness of directly teaching students individual comprehension strategies. Overwhelmingly, these ensuing studies support comprehension strategy instruction as improving student comprehension and advocate strategy instruction as a component of effective reading instruction (Pressley et al., 1989; Pressley & McCormick, 1995).

In addition, studies such as those by Palincsar and Brown (1984) emphasize the need for strategies to be taught in combination rather than in isolation, with the most effective instruction embedding strategy instruction within the actual reading event rather than teaching the strategies independently and then applying them to a reading situation (Alexander, 1996; Mayer, 1996; Pressley, 2000). Further research in the school setting reveals that when students apply comprehension strategies, their transactions with the text (i.e., interpretations) play a role in their construction of meaning (Rosenblatt, 1978). Termed "transactional strategies instruction," researchers began incorporating strategy instruction into collaborative discussions of literature that draw on reader-response principles (Pressley et al., 1992). Transactional strategy instruction focuses on engaging students in conversation over text, with teachers facilitating the conversation using modeling and providing scaffolding support (Wood, Bruner, & Ross, 1976) to increase student thoughtfulness (Brown & Palincsar, 1989; Gaskins, Anderson, Pressley,

Cunicelli, & Satlow, 1993). Results in the form of read-alouds and standardized test measures support the use of transactional strategy instruction to improve comprehension (Anderson, 1992; Brown, Pressley, van Meter, & Schuder, 1996; Collins, 1991).

Follow up studies undertaken 20 years after Durkin's initial report indicate that despite the plethora of evidence that supports the value of conversation in comprehension instruction (Almasi & Gambrell, 1994; NICHHD, 2000), the nature of the verbal interactions remains relatively unchanged in our schools today (Pressley, Wharton-McDonald, Mistretta-Hampston, & Echevarria, 1998). Even teachers who attempt to implement comprehension strategy instruction within a natural context of conversing over text often provide this instruction in perfunctory rather than thoughtful ways (Villaume & Brabham, 2002). These findings are staggering considering how the importance of conversation in instruction has been stressed not only in the comprehension literature, but also in the research on effective teachers.

Effective teacher research has revealed that the most effective teachers are knowledgeable, strategic, and able to thoughtfully adapt their instruction to meet the needs of their students. Concurrently, this ability to thoughtfully adapt instruction relies heavily upon a teacher's ability to respond appropriately and meaningfully to the students they teach. Yet, a quantitative observation by Flanders (1970) revealed that while two-thirds of the school day is comprised of talk, *only* 3 to 5 percent of the talk in the primary grades is in reaction to a student's statement or the teacher using an idea expressed by the student. An equally disturbing observation is that even in those classrooms which reveal higher percentages of teacher responsiveness to student thinking, some teachers may be creating miseducative experiences with text. Pressley

(2002b) found that many teachers had difficulty managing the "many interpretations emanating from reading group discussions" (p. 21) and teacher responses to student contributions ranged from only allowing a fixed interpretation of the text to permitting any interpretation that emerged. This range of responsiveness indicates that there are inconsistencies in how teachers view their role when conducting instructional conversations over text, as well as their skillfulness in working with a student's thinking once it has been revealed to them.

Research investigating classroom talk occurring between teachers and students primarily focuses on categorizing the types of utterances present in student and teacher exchanges. In 1990, Alvermann, O'Brien, and Dillon categorized teacher responses as either controlling the discussion, sustaining the discussion, having a sense of audience, relating to pacing, or referring to the use of textual material. A case study of six teachers conducted by Gaskins et al. (1993) meticulously examined the exchanges occurring between teacher and students. In this study each utterance was initially categorized as a student or teacher utterance. Teacher utterances were then later subdivided into either initiation utterances (the teacher tells or asks) or response (the teacher responds to the student in a manner that continues the train of thought begun by the initiating utterance). In the analysis of student utterances, the researchers focused only on student responses to a teacher's utterance. The study concluded that "teachers provided feedback that sustained student involvement and processing," yet little evidence of how this occurred was provided in the transcript excerpts or through the description of categories, as many student responses were identified in the transcript as merely "student response" (p. 290).

Additionally, the categories failed to reveal whether there was a level of quality or appropriateness on the part of either the student contribution or the teacher response.

Kucan's on-going research (personal communication, December 19, 2005) looks at the kinds of questions teachers ask and how they respond to students' answers and contributions. As in the aforementioned studies, teacher responsivity to student thinking is classified into categories, with teacher responses being coded as collecting, probing, connecting, or redirecting students thinking.

Wolf, Mieras, and Carey (1996) conducted a study focusing on preparing preservice teachers to be more knowledgeable and skillful in supporting students' responses to literature. This study categorized questions preservice teachers asked as known, opinion, connection, or conditional. This study also assessed whether question type shifted from teacher dominance to child-teacher dialogue as a result of the instructional framework. Their results indicated that preservice teachers questioning practices could change as a result of the instructional framework, but the authors cautioned that it is possible that an emphasis on teacher questioning could perpetuate preservice teachers viewing themselves as the "question askers" and lead to what Heshusius calls "listening without a specific purpose, that is, listening without wanting anything from it" (1995, p. 121).

Some researchers have attempted to quantify elements of effective instructional conversation. In discussing elements of instructional conversations, Goldenberg (1991) attempts to evaluate a teacher's ability to engage in instructional conversation based on a scale that provides instructional and conversational elements for evaluating the level of conversation that takes place in a learning situation. In this model, the teacher takes the

role of a mentor and phases in to demonstrate and name particular strategies then phases out to give students a chance to use the newly acquired strategies on their own (Walker, 1996). Goldenberg notes that teachers should have an initial plan for maintaining the focus and coherence of the discussion and should also be responsive to students' statements and the opportunities they provide; however, he does not address the quality of the teacher response or whether the response moves the student further along in their comprehension of the text.

Focusing on teacher responsiveness, Duffy and Roehler (1978b) describe interactive responsiveness as "the heart of instructional effectiveness, because it is teachers' sensitivity to students' restructuring and their responsiveness to these understandings which determine what students ultimately come to understand" (p. 417). Current research has typically focused on categorizing the kinds of interactions that take place within a particular conversation and rarely have studies attempted to reveal the uniqueness that take place in the higher and lower level conversations between students and teachers.

One study which did examine what occurs in more effective conversations versus less effective conversations was undertaken by Almasi, McKeown, and Beck (1996). While this study focused on peer discussion groups rather than on teachers, it did define three aspects of conversation that deal with coherence (global, local, and themal) and that can be used to distinguish between more and less effective groups.

Working in and with a number of schools, I have found most teachers are knowledgeable concerning the eight comprehension strategies highlighted by *The Report of the National Reading Panel* (NICHHD, 2000) and are aware of the important role

conversation plays in delivering effective instruction. Yet, most of these teachers engage in an initiate-respond-evaluate (IRE) pattern of discourse (Cazden, 1988, Mehan, 1979) with their students. My informal observations concur with those of Alvermann & Hayes (1989): Even when teachers value classroom conversation and make concentrated efforts to change their current discourse, the changes made are rarely substantial and do not result in lasting changes in classroom interaction patterns.

Effective teacher research documents that a teacher who is responding thoughtfully to student thinking increases student learning. The most effective comprehension instruction takes place during natural interactions between teachers and readers, with teachers responding flexibly and opportunistically to students' thinking. Research has also shown that most classroom discourse follows an IRE pattern of discourse and efforts to change a classroom's style of discourse once it is established are rarely successful. Thus, research findings and personal observations lead me to believe it is crucial to establish effective patterns of talk early in teacher preparation programs. To this end, I endeavored to find effective ways to teach preservice teachers how to facilitate successful instructional conversations. As a teacher-educator, I observed marked differences in preservice teacher's conversations with their students during weekly observations. I concluded that I needed to observe and analyze the events that were occurring during preservice teacher's attempts to facilitate instructional conversations before addressing those differences through future instruction. There is a documented need in the literature for increased understanding and dialogue on facilitating effective instructional conversations over text—specifically with preservice teachers. Exploring what preservice teachers do when engaged in instructional

conversations may yield important information that would advance our understanding of how educators can further develop their students' learning and understanding of a text.

Purpose of the Study

My initial purpose in conducting this study was to determine if the instructional framework and explicit conversational scaffold would result in preservice teachers' engagement in higher levels of instructional conversations when reading aloud narrative and expository text with their students. However, as I became immersed in the data it became apparent that I was conducting *my observation* in a perfunctory way-- simply counting the number of comprehension strategies preservice teachers used rather than observing what was truly contributing to higher levels of conversation within these exchanges.

At this juncture, my focus and the purpose of the study shifted and I endeavored to understand what my preservice teachers and their students did during these conversations by observing and transcribing conversations of 23 preservice teachers as they conducted discussions while reading narrative and expository texts interactively to 2nd and 4th grade students. Using Glaser and Strauss's (1967) constant comparative method, I attempted to describe and interpret what is involved in preservice teachers' attempts to engage and facilitate instructional conversations with students. At a more specific level, I attempted to identify characteristics of higher and lower levels of conversation that occurred in these instructional conversations. I used qualitative research methods such as transcribing conversations, observing participants, and reviewing written artifacts such as lesson plans and reflections to examine events from a

holistic perspective as they occurred naturally. These methods are oriented toward discovery and exploration, and lead to the generation of theory that is thoroughly grounded in the data.

Research Questions

One overarching question guided this grounded theory research study:

What theory explains the differences evident in preservice teachers' instructional conversations with elementary school students when an instructional framework and explicit conversational scaffold is used?

General categories surfaced from open coding of the data and from these categories the following questions emerged:

1. What differences exist in preservice teachers instructional conversations with students before implementation of the instructional framework and explicit conversational scaffold?
2. How do preservice teachers' instructional conversations with students change over time as a result of the instructional framework and explicit conversational scaffold?
3. What characteristics defined higher level instructional conversations?
4. What characteristics defined lower level instructional conversations?

CHAPTER II.

REVIEW OF RELATED LITERATURE

This chapter provides a review of the literature that pertains to the theoretical framework and research questions on which this study of preservice teachers' instructional conversations with students was based. It is organized into five sections: (a) reading comprehension, (b) comprehension instruction, (c) classroom discussion and instructional conversations, (d) effective teacher practices, and (e) teacher preparation.

Reading Comprehension

Building meaning while engaged in the reading of a text is a multi-faceted process. One aspect of this process relies on word-level skills (Snow, Burns, & Griffin, 1998). Research strongly supports what appears self evident—if a child is unable to decode a word then he or she is unable to comprehend the meaning behind the word (Adams, 1990). Consequently, to best comprehend a text, readers must have automaticity in recognizing words to have sufficient cognitive resources available for comprehension to take place (Stanovich, 1991; Vellutino et al., 1996; Vellutino & Scanlon, 2002). If a reader is struggling to decode unfamiliar words during the reading task, few resources are available to attempt substantive construction of meaning. To ensure the availability of these resources, word recognition must be accurate, automatic,

and fluent (Gough & Tunmer, 1986; LaBerge & Samuels, 1974). In addition to decoding skill and sight word recognition, vocabulary knowledge plays a pivotal role in a child's ability to comprehend (NICHHD, 2000; RAND Reading Study Group [RRSG], 2002; Stahl & Fairbanks, 1986). Readers with more extensive vocabularies comprehend better than those with weaker vocabularies (Stanovich, 1986).

However, as reported in *Reading for Understanding* (RRSG, 2002) children who read on-grade level in Grade 3 are not guaranteed to be proficient comprehenders in later grades. This report suggests that other factors must contribute to successful comprehension. In short, while research has clearly shown that decoding and word-level comprehension abilities are a necessary component for comprehension to take place (Gough & Tunmer, 1986), they are not sufficient by themselves (Snow & Sweet, 2003).

Comprehension is Motivated and Purposeful

Comprehension is not an absolute ability. Even the most skillful readers struggle to comprehend texts when they have limited knowledge of the topic (Anderson & Pearson, 1984) and when the texts are filled with unfamiliar vocabulary (Anderson & Freebody, 1981; Stanovich, 1986). A three way interaction occurs between the reader, the text, and the activity as meaning is constructed (RRSG, 2002). A reader, consciously or unconsciously, enters every reading situation with a predominant purpose for reading. General purposes for reading include learning, applying knowledge, and being engaged. Readers sometimes choose to read primarily from an "aesthetic stance" and focus on "living through the experience"; at other times, they choose to read primarily from an "efferent stance" and focus on "carrying away accurate information" (Rosenblatt, 1978). Depending on their purpose for reading, skillful readers embark upon the reading

activity using strategies and processing that will best help them achieve those purposes (Pressley et al., 1992). However, purposes for reading change as readers interact with text features, and readers often oscillate between stances in order to best construct meaning. Reading research reveals that reading is very much an "interest driven process" (Blachowicz & Ogle, 2001) and that students process text based largely on their prior knowledge (Anderson & Pearson, 1991) and the type of reading being done (RRSG, 2002).

Consequently, good comprehenders are mentally active (Dole, Brown, & Trathern, 1996; Pressley & Afflerbach, 1995; Wyatt et al., 1993); they are able to understand the gist or what the author meant to convey (van den Broek, 1994). They also make reasonable interpretations of the text even if their personal experiences and interpretations are in conflict with story elements (Eco, 1990). The three way interaction between the text, the reader, and the activity of reading is intricately intertwined and situated within the context of the reading event.

Comprehension is a Constructive Process

Comprehension of a text does not occur "all at once" but is rather an iterative process encompassing the reader, the text, and the activity as meaning is being constructed. Pressley and Afflerbach (1995) reviewed more than 40 think-aloud studies in which readers verbalized their thought processes as they read. Their investigation revealed that skillful readers are very active before, during, and after they read. Before reading a text, readers may activate their prior knowledge by connecting to past experiences and/or perspectives as they attempt to construct meaning (Anderson & Pearson, 1984). They may formulate questions and make predictions about the upcoming

selection drawing upon their background knowledge as well as the genre of reading material. Skillful readers set purposes for reading and may choose an appropriate strategy to address those purposes.

During reading, good readers interact or transact with what they are reading and integrate this new knowledge with what they already know (Anderson, Hiebert, Scott, & Wilkinson, 1985; Paris & Oka, 1986; Rosenblatt, 1995). They answer questions they may have posed before or during the reading. They reject, support, and/or refine predictions that they have made as well as adding new predictions and questions as necessary. In addition, skillful readers remain "especially alert to ideas that relate to their reading goal" (Pressley, 2002b, p. 15). They mentally check their understanding of the text by keeping track of the overall meaning while at the same time integrating the new information into existing schema. Good readers monitor their comprehension using all four cueing systems (phonological, syntactic, semantic, and pragmatic) to figure out unknown words, to determine what is important, and to apply "fix-up" strategies when difficulties are encountered. In addition, skillful readers make unconscious and conscious inferences often relating what is stated in the text to their prior knowledge—sometimes inferring the author's intention and sometimes mentally challenging the author as they read.

After reading, good readers sometimes summarize and synthesize what has been read. They continue to make connections and evaluate whether or not they have addressed their purpose for reading. They may generate new questions that need to be answered. Good readers add new information to existing schemata by adding categories, modifying categories, and even sometimes discarding a category altogether. Good

readers also make personal interpretations which are affected by prior knowledge and experience. The verbal reports of what skillful readers do most certainly reflect the use of strategies, but they also reflect that skillful readers are aware of their "in the head" processes and use and apply that knowledge when reading a particular text (Pressley & Afflerbach, 1995). In a study investigating what readers may use to comprehend a text, Pressley (2002b) identified 30 cognitive and metacognitive processes across multiple research studies that readers can use to make sense of a text:

> making connections to background knowledge, interpreting text structures, questioning, clarifying meaning, comparing, contrasting, summarizing, imaging, setting purposes, using fix-up strategies, monitoring, cognizing, interpreting personal perspectives, identifying gists, changing hypotheses, adding hypotheses, searching for meaning, being alert to main ides, creating themes, determining importance, drawing inferences, corroborating congenial and noncongenial data, contextualizing, engaging in retrospection, generating, using mnemonic devices, predicting, organizing, and reorganizing text. (p. 3)

Research clearly demonstrates that skillful readers are purposeful, thoughtful, and reflective about the reading process (Dole et al., 1996). They possess a repertoire of strategies that they can apply in flexible and adaptable ways depending on the text and context of the reading task (Baker & Brown, 1984; Garner, 1987).

Comprehension is Socially Constructed

"Reading comprehension is the result of *reader's constructing meaning*—as contrasted with retrieving information—from the text" (Palincsar, 2003, p. 99). Social interaction where readers construct meaning together, especially when led by a more

experienced adult or peer, can play a significant role in developing students' cognitive capabilities (Piaget, 1967; Vygotsky, 1978). In *The Report of the National Reading Panel* (NICHHD, 2000), the National Institute of Child Health and Human Development noted that "having peers instruct or interact over the use of reading strategies leads to an increase in the learning of the strategies, promotes intellectual discussion, and increases comprehension" (p. 4-45). In addition, instruction that fosters students having conversations about the way that books shape the way they think and respond will affect the way these students will approach a text when reading independently (Eeds & Wells, 1989; Villaume & Worden, 1993). This socially mediated instruction is further enhanced when students are interacting over text while in their "zone of proximal development" (Vygotsky, 1978). When students are in this "zone" between what they can accomplish by themselves and what they can accomplish with a more able adult or peer, they acquire higher levels of strategy use and comprehension ability than they would if left to their own devices. This socially mediated instruction is oftentimes referred to as scaffolded instruction.

In scaffolded instruction, temporary support is provided then gradually withdrawn over time (Wood et al., 1976). In the context of reading instruction, teachers provide a great deal of support to students as they learn about reading strategies and how to implement their use when reading a text. This high level of support is evinced in an instructional procedure such as reciprocal teaching (Palincsar & Brown, 1984; Palincsar & Herrenkohl, 2002). In reciprocal teaching, teachers model the application of the strategies making their own problem solving strategies evident to students. During the conversations over texts, the teacher gradually withdraws support so that students gain

greater control over the strategies (Pearson & Gallagher, 1983). In time the teacher's role becomes more like a coach, providing feedback and prompting as necessary (Palincsar & Herrenkohl, 2002). The ultimate goal for scaffolded comprehension instruction—as it is for most any form of instruction—is that students flexibly use the strategy or process that has been scaffolded when independently reading a variety of texts.

Comprehension is a Strategic Process

Comprehension is an active and strategic process (NICHHD, 2000). To be strategic, readers must possess strategies that they employ independently during the reading process. Skillful readers activate strategies unconsciously and automatically when the reading is particularly easy for them or when it is at their independent level (Blachowicz & Ogle, 2001). When text is more challenging (i.e., at an instructional or frustration level), skillful readers activate strategies in more conscious and controlled ways to better comprehend the selection (Pressley, 1998; Sinatra, Brown, & Reynolds, 2002). Proficient readers use cognitive and metacognitive strategies to improve their ability to understand and benefit from text (Baker & Brown, 1984; Garner, 1987).

Cognitive strategies are those which readers consciously use to organize and interpret the text and include devices such as making inferences, critical analysis, use of prior knowledge, generating questions, and use of the four cueing systems to solve problems (Vellutino, 2003). Metacognitive strategies "are mechanisms that emanate from readers' awareness of the cognitive demands of the text, the goals and purposes that will be accomplished in reading given texts, and the need to generate a variety of cognitive strategies in accomplishing these objectives" (Vellutino, 2003, p. 66). Metacognitive strategies are also referred to as those that are employed when students

"think about their thinking." Students engage in the use of metacognitve strategies as they monitor their comprehension while reading a text, actively generate strategies (e.g., rereading, note taking, visual imagery) and shift strategies according to the difficulty of the text or content. Research has revealed that the strategies and skills readers employ become more sophisticated as the level of text becomes higher and more challenging (Sinatra et al., 2002).

Skillful readers are strategic as they actively solve problems during the reading process. When they encounter a problem, they are able to identify whether the problem is at a word-level or text-level and activate "fix-up" strategies accordingly. Skillful readers possess a repertoire of strategies that they apply in flexible and adaptable ways depending on the text and context of the reading task before, during, and after reading (Baker & Brown, 1984; Garner, 1987).

Comprehension is Self Monitored and Self Regulated

Initial insights into readers' abilities to think about their thinking during the reading process were a result of memory work conducted by Markman (1977). The experimental study investigated the awareness readers had of their comprehension processes while reading. Specifically, the study examined if readers knew when they did and did not understand written instructions and if they recognized when failure to understand occurred. At the conclusion of the study, Markman noted that young children appeared to be processing the written instructions at a superficial level and as a result had no awareness that their comprehension of the task instructions was faulty. Even when the absence of information was blatant and subsequent probes were made, first graders gave little indication that they did not understand the instructions. Typically they

did not realize that the written instructions were incomplete until they were asked to enact the instructions. This phenomenon is referred to as “comprehension monitoring failure.” When the children attempted to carry out the sketchy instructions, they were forced to process the text on a deeper level and subsequently realized that information was missing. Markman also found that demonstration helped children with their cognitive processing. This finding served as a precursor to research on modeling instruction. Subsequent studies revealed that failure to monitor comprehension is not relegated to young children and that adult failures at comprehension monitoring can also be significant (Pressley, Ghatala, Woloshyn, & Pietrie, 1990a, 1990b; Pressley, Levin, & Ghatala, 1984).

Self-monitoring and self-regulation during the reading task is of critical importance as it has a major impact on comprehension. When students read a text without monitoring and regulating their own understanding, they may attempt to “fill in the gaps” in ways that are inconsistent with what the author is attempting to convey--oftentimes resulting in erroneous meaning making and conclusions. Studies have supported teaching children how to monitor their text comprehension (Elliott-Faust & Pressley, 1986; Ghatala, Levin, Pressley, & Goodwin, 1986; Lodico, Ghatala, Levin, Pressley, & Bell, 1983; Rao & Moely, 1989) but are far from revealing how to teach children the many types of comprehension monitoring evinced by skillful readers (Pressley & Afflerbach, 1995).

Comprehension Instruction

At approximately the same time that Markman (1977) was conducting research in metacognition, a landmark study by Durkin (1978/1979) with upper elementary-grade classes revealed very little comprehension instruction was taking place in those classrooms. Durkin observed teachers engaging in "interrogations" and testing of comprehension but rarely providing instruction which taught students *how* they could improve their comprehension abilities. The typified pattern of discourse that dominated classroom exchanges involved the teacher asking a student a question, the student responding, and the teacher evaluating the response. This exchange was later referred to in the literature as the Initiate, Respond, and Evaluate (IRE) instructional method (Cazden, 1988; Mehan, 1979).

As a result of Durkin's work, researchers began a sustained search for ways to improve comprehension instruction. Ironically, it was during this same time period that studies of cognitive strategies began to surface in the literature (e.g., Levin, Yussen, DeRose, & Pressley, 1977; Pressley & Levin, 1977). As a result, comprehension research turned towards investigating myriad strategies to assist students in becoming cognitively aware of what they do when reading a text and how to address problems when they occurred.

Evolution of Strategy Instruction

To be clear, comprehension strategies are "specific, learned procedures that foster active, competent, self-regulated, and intentional reading" (Trabasso & Bouchard, 2002, p. 176). In early research on strategy instruction, the focus was the teaching of a single comprehension strategy (Dole, Duffy, Roehler, & Pearson, 1991; Pressley,

Johnson, et al., 1989; Pressley & McCormick, 1995). Generally, students in one group received instruction on a specific comprehension strategy while another group followed traditional reading instruction. When reading comprehension was assessed at the conclusion of these studies, the strategy-instruction group usually outperformed the traditional instruction group. These initial studies validated that single comprehension strategy instruction improved their students' abilities to comprehend a text.

Research interest then shifted to whether combinations of strategies could facilitate text comprehension. Think aloud studies had demonstrated that readers rarely apply only one strategy when attempting to make meaning of a text (Pressley & Afflerbach, 1995), so researchers sought to explore strategies that could be combined to best foster comprehension. Some of these combinations were especially promising. *Preventing Reading Difficulties in Young Children* (Snow, Burns, & Griffin, 1998) specifically endorsed reciprocal teaching that uses prediction, question generation, summarization, and clarification to teach students strategies explicitly with a gradual release of responsibility (Palincsar & Brown, 1984). Additional studies reported combination of strategy instruction resulted in increases in students' ability to comprehend the texts they were reading and gave rise to the teaching of multiple strategy use (Anderson, 1992; Collins, 1991; Pressley, El-Dinary, Gaskins, et al., 1992; Brown et al., 1996).

Teaching students how to use strategies while reading is important, but students also need to know when and where to apply learned strategies (Pressley, Borkowski, & O'Sullivan, 1984). In other words, they need to develop the metacognitive ability to know when their comprehension breaks down and how to select an appropriate strategy

to address the failure. This idea evolved into teaching strategies within the actual reading event rather than teaching strategies independently and then applying them to a reading situation. Research was undertaken to explore this nuance of strategy instruction supported by the practice of teaching comprehension strategies in context rather than in isolation (Alexander, 1996; Mayer, 1996; Pressley, 2000). Garner (1990) highlighted the utility of contextual strategy instruction: “One thing that we already know about strategy use is that it is embedded. It does not occur in a vacuum. When context varies, the nature of strategic activity often varies as well” (p. 523).

Once research studies established that elementary school students could profit from researcher-developed instruction in reading strategies, researchers and educators expanded their investigation to include teaching of the strategies in the natural classroom setting (Block & Mangieri, 1995, 1996a, 1996b; Gaskins & Eliot, 1991; Pressley, Goodchild, et al., 1989). These teacher led investigations revealed a variety of transactions which occurred among teachers, students, and text. Termed “transactional strategies instruction” (Pressley, El-Dinary, et al., 1992), the instruction focused on the transactions occurring among group members, transactions between reader and text, and transactions of socially constructed meaning. It also emphasized effective strategy instruction where “teachers and students act as a literary community, using strategies to construct and evaluate interpretations of the text . . . [with] the long term goal of the instruction that students will internalize strategic processes that are practiced in the group” (El-Dinary, 2002, p. 202).

Explicit Teaching of Strategies

The concern over struggling readers prompted the examination of explicit teaching of strategies in comprehension instruction. Citing evidence that struggling readers often missed the subtle cues and prompts provided by other activities, research was conducted to investigate techniques which provided more direct and explicit information about how reading works (Baumann, 1984; Paris, Cross, & Lipson, 1984; Dole et al., 1996). Direct explanation teaches students how to solve problems while engaged in the reading process and how to think strategically when comprehension breaks down (Duffy et al., 1986). In this model, teachers provide direct explanations to generate greater general awareness of reading strategies and to make visible what Clay (1991) calls the "in the head" processes of skillful readers. However, this direct and explicit teaching is responsive in nature and stands in sharp contrast to scripted instruction such as DISTAR (Englemann & Bruner,1974). Duffy articulates how direct explanation differs from this type of scripted instruction:

> A teacher, not a program decides what strategies to teach; a teacher, not the program develops an explanation; a teacher responds to cues from students and does not compliantly follow a script; the instructional emphasis throughout is on development of high-level, not low-level student responses; and a priority is placed on situating explanations in authentic learning occasions." (2002, p. 35)

Further, according to Duffy (2002), direct and explicit teaching of strategies differs from other approaches to comprehension instruction in two ways. When "strategy" is referred to in connection with an explicit teaching approach, it refers to a technique that "readers learn to control as a means to better comprehend" (p. 30). This

contrasts with a technique like K-W-L (Ogle, 1986), where teachers rather than students are in control of the strategy as they prompt students to brainstorm what they Know about a topic, list what students Want to learn about the topic before the reading event, and compare these lists to what students have Learned at the end of the reading.

The second way that direct explanation varies from other forms of instruction is the intentional revealing of how strategies work so that students not only gain meaning from the text they are currently reading but can apply these strategies in appropriate ways to a multitude of texts. In an intervention study carried out by Duffy, Roehler, Meloth, and Vavrus (1986), six interrelated instructional activities comprised explicit teaching of strategies. Activities consisted of teachers (a) introducing the selection to be read, (b) stating which strategy needs to be learned and when it would be used, (c) identifying the one critical attribute to focus on in order to use the strategy successfully, (d) modeling of how to think when using the strategy, and (e) using responsive elaboration (Duffy & Roehler, 1987). The findings from this study and others suggest that comprehension improves when teachers provide explicit teaching in the use of comprehension strategies (Duffy, 2002; Duffy & Roehler, 1987; Duke & Pearson, 2002). However, while direct explanation is especially important for struggling readers, an even more important implication is what the findings revealed about the "crucial role of the teacher" (Duffy, 2002, p. 34).

The Role of the Teacher in Strategy Instruction

Research makes evident that teachers must be thoughtfully adaptive and able to make adjustments to strategy instruction if they are to provide students with the right amount and types of support at the right time and respond in ways that clarify meaning

for students (Duffy, 2002; NICHHD, 2000). Even when intensively trained in direct explanation comprehension instruction, teachers were not equally effective. Teachers who modified their instruction to meet individual students' needs posted the most significant gains in student comprehension. Studies using classroom observations (El-Dinary, Pressley, & Schuder, 1992; Gaskins et al., 1993) also confirmed that successful implementation of comprehension strategies instruction varies. While some teachers introduced strategies individually, the most effective teachers expedited incorporating strategies into students' repertoire of strategies by remaining responsive to students' strategy needs during an authentic reading event. The most effective teachers oscillated between explicit instruction of a needed strategy and the support of independent student strategy use depending on the given situation and the individual students' needs.

Comprehension Techniques

To help students better comprehend text, researchers and practitioners have developed techniques and procedures to assist students in the process. Ogle's (1986) K-W-L technique improved reader's comprehension by making explicit the link between their prior knowledge and the text. The technique guided students to think about what they already KNOW about a topic (K), what they WANT to learn (W) and what they LEARNED as a result of their reading (L). In addition, other techniques employed the use of graphic organizers to help depict comprehension processes (Block & Mangieri, 1996; Schuder, 1987) and to help students organize their thinking.

However, in order to develop "inner control" (Clay, 1991), students need explicit information in how the strategy works. One of the first techniques to address this was Raphael's Question-Answer-Relationship (Q-A-R) technique (Raphael & McKinney,

1983; Raphael & Wonnacott, 1985). This technique directs students to think about and investigate how to find answers to comprehension questions which may be located "right there" on the page, between the lines, or beyond information provided in the text. Similarly, Palincsar and Brown's (1984) "reciprocal teaching" focuses on students emulating a teacher's question asking and encourages students to think strategically when reading on their own.

Other Issues in Comprehension Instruction

Research indicates that comprehension instruction should begin in the primary grades, as it is beneficial to overall reading development (Duke & Pearson, 2002). In a study conducted by Pressley, El-Dinary, Gaskins, et al. (1992), comprehension strategy instruction was significant in improving comprehension in students as early as the second grade. However, blind application of strategy instruction can lead to miseducative experiences. Sinatra, Brown, & Reynolds (2002) warned that requiring students to repeatedly demonstrate their use of strategies may interfere with the "development of automatic comprehension processes" (p. 72).

Other research documents the positive impact of many different variations of explicit strategy instruction (NICHHD, 2000). Villaume and Brabham (2002) sorted these variations into two categories—instruction that proceeds from the "outside in" and instruction that proceeds from the "inside out." When teaching comprehension strategies using an "outside-in" approach, teachers explain, model, and guide practice as students apply target strategies while reading. When working from the "inside out," teachers do not teach specific comprehension strategies but rather invite students to uncover their

own use of strategies. Open ended procedures such as think alouds provide support for this type of instruction.

Teachers must always keep in mind that the ultimate goal of reading comprehension instruction is to promote comprehension when reading independently. Unfortunately, even with instruction that targets independent use, students do not perceive and use instruction in the same way (Duffy, Roehler, & Rackliffe, 1986; Pressley, Goodchild, et al., 1989). For example, when strategy instruction is too teacher dominated, some students never learn how to apply the strategies independently (Taylor, Pearson, Clark, & Wolple, 1999; Wood, Willoughby, McDermott, Motz, & Kaspar, 1999); yet when instruction is not sufficiently direct and explicit, the converse is often true. To investigate this dilemma, a study undertaken by Dole, Valencia, Greer and Wardrop (1991) compared student centered strategy instruction and teacher directed strategy instruction in activating prior knowledge. The results indicated that teacher directed strategy instruction was more effective but the researchers cautioned that while a "teacher directed strategy may help [students] understand a text at hand, a student-centered strategy may be more likely to help students with text they read on their own" (p.62).

To further complicate matters, the benefits of strategy instruction may not always be evident immediately following the teaching of such strategies. Dole, Brown, and Trathern (1996) compared strategy instruction, story content instruction, and basal instruction. They found no differences when the students were asked to read text immediately after receiving instruction. However, the strategy group significantly outperformed the basal and story content groups when students were asked to read on

their own. Other findings reveal that the teaching of strategies improves student processes such as strategy awareness and comprehension monitoring, but does not consistently result in significant gains in reading achievement when compared to traditional basal instruction (Duffy et al., 1986; Duffy et al., 1987; Paris, Cross, & Lipson, 1984).

Additionally, strategy instruction does not guarantee student use of the taught strategy. Many factors influence whether or not students will use a strategy that has been taught. Motivation was found to be a key component of whether or not a student continues to use a particular strategy (Dole et al., 1996; Paris, Wasik, & Turner, 1991). Paris, Lipson and Wixson (1983) found that skill in implementation of a particular strategy greatly influenced readers' willingness to use the strategy. The true value of teaching students to use strategies comes when students are able and willing to use these strategies independently and transfer use to other texts (Bereiter & Scardeamia, 1987; Johnston & Afflerbach, 1985; Pressley, 1998; Roehler & Duffy, 1991).

Research in comprehension instruction is multifaceted and complex, with no easy "what works" answers for all students with all types of text. Nevertheless, research has provided some general findings to help identify what constitutes effective comprehension instruction.

Scientific Evidence in Comprehension Instruction

In 2000, the National Institute of Child Health and Human Development released *The National Reading Panel Report* (NICHHD, 2000). Trabasso & Bouchard (2002) conducted the scientific review which the National Reading Panel used as the basis for their conclusions regarding comprehension instruction. In their review, the NRP

identified 12 categories of instruction that they concluded "contained a reasonable number of studies found to be effective in teaching comprehension strategies and improved comprehension" (p. 178-185). Strategies having empirical support include (a) comprehension monitoring (discussed earlier in this review), (b) graphic organizers, (c) listening actively, (d) mental imagery, (e) mnemonic instruction, (f) prior knowledge, (g) question answering, (h) question generation, (i) story structure, (j) summarization, (k) vocabulary instruction, and (l) multiple strategy instruction. What is interesting to note is that in the final NICHHD report listening actively, mental imagery, mnemonic instruction, activation of prior knowledge and story structure were omitted, despite having been shown to be successful with both struggling and, in some cases, normal readers.

Support was strong in the 10 studies characterized as using cooperative learning strategies. These studies suggest that readers may learn best when in social situations where they are actively engaged with other learners who are at similar reading levels. Results revealed that cooperative learning increased intellectual discussion, enhanced students' responsibility for learning, and encouraged students to interact with their peers. Standardized reading comprehension tests were utilized in three of the studies and all posted significant results in comprehension performance (NICHHD, 2000, pp. 4-45).

The NRP report (NICHHD, 2000) and additional empirical studies strongly support the notion that students can be taught to use specific strategies resulting in significant improvements in understanding of the text (Block, 1993; Palincsar & Brown, 1984; Pearson & Dole, 1987; Pearson & Fielding, 1991; Pressley, Johnson, et al., 1989). Research further supports that teaching students to use such strategies results in long-

term benefits (Block, 1993; Block, 1999; Brown et al., 1996). Readers provided with cognitive strategy instruction also make significant gains on comprehension measures when compared with students who are taught using conventional comprehension procedures (Pressley, Johnson, et al., 1989; Rosenshine & Meister, 1994; Rosenshine, Meister, & Chapman, 1996).

Despite the plethora of evidence that comprehension strategies can be taught and that teaching of such strategies results in improvement in students' abilities to make meaning of text (Pearson & Dole, 1987), this body of research has had little impact on classroom comprehension instruction When Pressley and his colleagues (Pressley, Wharton-McDonald, Mistretta-Hampston, & Echevarria, 1998) observed language arts classrooms in fourth and fifth grade elementary school classrooms they found, as in Durkin's study 20 years earlier, that there was a great deal of comprehension testing but very little evidence of teachers teaching students how to process text so that they might understand and remember it.

Even with instruction that teaches students how to effectively process text, research indicates that students do not perceive and respond to instruction in the same way (Duffy, Roehler, & Rackliffe, 1986; Pressley, Goodchild, et al., 1989). Research also documents that comprehension improves when teachers design and implement activities that support students making meaning of the texts they are reading in class (Duke & Pearson, 2002). Trabasso & Bouchard (2002) insist that future research must focus on identifying teacher characteristics that influence successful instruction of reading comprehension and the most effective ways to train teachers to teach comprehension strategies. They suggest "the art of instruction involves a series of wh-

questions: knowing when to apply what strategy with which particular student(s)" and asking "how do we develop teachers as masters of this art?" (p. 186).

Classroom Discussion and Instructional Conversations

The terms "discussion," "conversations," "peer discussions," and "instructional conversations" are oftentimes used interchangeably by researchers and practitioners in the literature. Some general findings that appear to be salient regarding these terms are discussed, with a focus placed on instructional conversations at the end of this review.

Historically, reading instruction followed a skills and practice model. Teachers adhered to scripts which laid out individual skills to be taught to students and ensured reading success by making sure students mastered those skills (Otto, Wolf, & Eldridge, 1984). With the advent of research in cognitive psychology, the focus shifted from a regurgitation of a prescribed set of skills to teaching students how to organize knowledge they constructed during the reading process. Lampert describes the need to move from drill and practice towards a model in which teachers provide students with information and mediate their cognitive processing in this way:

> They [students] need to be treated like sense-makers rather than rememberers and forgetters. They need to see connections between what they are supposed to be learning in school and the things they care about understanding outside of school, and these connections need to be related to the substance of what they are supposed to be learning. (1986, p. 340)

Unfortunately as the Durkin (1978/1979) study and subsequent studies (Alvermann & Hayes, 1989; Pressley, Johnson, et al., 1989) demonstrate, this type of

instruction is rare in comprehension instruction. Engagement in discussion, that facilitates “sense making” is not predominant in our nation’s classrooms and most of the so called instruction follows an IRE (Cazden, 1988; Mehan, 1979) pattern involving a teacher initiating discussion by asking a question, a student responding, and the teacher evaluating the response (Alvermann et al., 1990; Beck, McKeown, Sandora, Kucan, & Worthy, 1996; Cazden, 1988). The research suggests possible explanations as to why teachers are slow to implement and engage in discussion. One possible reason is change is always difficult when the task at hand is difficult to enact—and discussion that builds students understanding of text has been shown to be difficult (Alvermann, O’Brien, & Dillion, 1990; Villaume, Worden, Williams, Hopkins, & Rosenblatt, 1994). Cazden (1988) reflects on the challenge:

> It is easy to imagine talk in which ideas are explored rather than answers to teachers’ test questions provided and evaluated; in which teachers talk less than the usual two-thirds of the time and students talk correspondingly more; in which students themselves decide when to speak rather than waiting to be called on by the teacher; and in which students address each other directly. Easy to imagine, but not easy to do. (p.54)

In addition to being difficult, evidence is mixed in how to best structure discussions. In a study by Dole et al. (1991), comparisons were made between story content instruction and the use of pre-developed scripts to judge student recall of text. The results indicated that use of pre-developed scripts did result in higher literal recall of text. In spite of this, the researchers cautioned that while the scripts resulted in higher student outcomes, they may foster dependency to provide prior knowledge necessary for

reading and understanding a text. This dependency may result in developing students who may be unsure of how to proceed when reading independently.

Another reason for the lack of discussion in classrooms may involve teachers' belief they are engaging students in discussion when they are not (Alvermann et al., 1990; Goldenberg, 1993; Roskos, Boehlen, & Walker, 2000). Inaccurate perception of classroom discourse may explain the disparity as to why teachers state that they value peer discussion for its cognitive, social, and affective benefits and yet not use it as an instructional tool within their classrooms (Commeyras & Degroff, 1998). To further complicate matters, Alvermann and Hayes (1989) found that even when teachers value classroom discussion and make concentrated efforts to change their current discourse, the changes made are not substantial and do not result in lasting changes to classroom interaction patterns.

A large scale research endeavor conducted through the National Reading Research Center at the University of Maryland culminated in an investigation of "transactional strategy instruction" by a team of researchers and practitioners (Brown & Coy-Ogan, 1993; El-Dinary & Schuder, 1993; Ferro-Almeida, 1993; Gaskins, Anderson, Pressley, Cunicelli, & Satlow, 1993; Pressley, El-Dinary, et al., 1992; Schuder, 1993). This body of research shed light onto why discussion is scant in the classroom setting. The research endeavor began as an effort to change current curriculum and develop a program for at-risk students. The resulting program *Students Achieving Independent Learning* (SAIL) (Bergman, 1992; Bergman & Schuder, 1992) incorporated current cognitive research and the teaching of strategies such as (a) predicting, (b) relating prior knowledge, (c) asking questions, (d) visualizing, and (e) summarization with the idea

that “good explanation blends explicit information giving and sensitive responsiveness to students in order to develop both conscious awareness of how a strategy works and richly textured understanding of text content” (Duffy, 1997; Duffy, Roehler, Meloth, & Vavrus, 1986). What became abruptly clear to researchers involved in the project was that as students applied strategies to the text they were reading, their transactions with the text (i.e., interpretations) played a role in their construction of the meaning. Thus, they began to incorporate strategic interaction into collaborative discussions of literature that drew on reader-response principles. They also realized they could promote engagement with a text by modeling the thought processes they were engaged in and then scaffolding student thoughtfulness (Brown & Palincsar, 1989; Gaskins et al., 1993). Based on theories of learning and development as to how individual cognition occurs in a group (Rogoff, 1990; Vygotsky, 1978), the researchers hypothesized social construction of the text would result in student’s internalization of the process so when reading independently they have a repertoire of strategies they could draw from and apply (Almasi, 1995; Almasi & Gambrell, 1994).

Three experimental studies evaluated the long-term use of transactional strategies instruction (TSI) highlighting the critical value of instructional conversations in teaching comprehension. Results support TSI use, indicating that students benefited from this type of instruction as evinced through read-alouds and standardized test measures (Anderson, 1992; Brown et al., 1996; Collins, 1991). Subsequent studies also found that a higher quality of teacher–student discussions, especially when providing scaffolded instruction can accelerate students’ development (Pressley, 2002b).

However, transactional strategy instruction, like classroom discussion, is difficult to implement despite findings that indicate teachers accept and value this approach to teaching comprehension (Ferro-Almeida, 1993). For example, Brown and Coy-Ogan (1993) followed a teacher over a three year period. They reported that the teacher went through a typical pattern for implementing innovative practice: stage 1—mechanical use; stage 2—experimental use; and stage 3—internalization and personalization. In addition, they found it took the teacher three years of practice before finally emerging as an expert strategies-based instructor. A similar study by El-Dinary & Schuder (1993) found that only 2 of 7 teachers accepted transactional strategies instruction during their first year of using it. They concluded that to accept transactional strategies instruction, teachers need several years of professional development, a safe and supportive school environment, respect as professionals, explanations and modeling of what good strategies teachers do, coaching and in class problem solving from master strategies teachers, and support in their efforts to adapt instruction to meet their needs as well as their students. The study also revealed when teachers felt transactional strategies instruction conflicted with their beliefs about reading and teaching of reading, believed it took too much time, or experienced problems with the many interpretations that often stemmed from discussion, they abandoned its use—despite whether or not they felt it was an effective instructional procedure.

The challenges of conducting an effective discussion or instructional conversation seems to be at the heart of teachers' reticence to engage in conversation with students. Dillon (1985) found that teachers' questions often "foil discussions," whereas non question alternatives typically foster discussion. He found that the amount

of teacher talk did not matter, as well as the kinds of questions, amount of questions, or pace of questions in determining quality of conversation. “What does seem to matter is whether the teacher asks questions or uses nonquestion alternatives” (Dillon, 1985, p. 118). Dillon explained one plausible explanation for the findings may be that the most common way for teachers to manage classroom talk was through “pseudoquestions,” where teachers already know answers to the questions they have posed. This does not allow for students to share their thinking with the teacher and as a result authentic conversations are thwarted. The use of alternatives such as informational, dialectical, and problematical contributions resulted not only in more student talk but also in more complex thought, deeper personal involvement, wider participation, greater interconnectedness, and richer inquiry. The impact of these alternative contributions by the teacher is critical because students rarely challenge the teacher’s role as the controller of classroom talk and the transmitter of knowledge without teacher modeling (Alvermann & Hayes, 1989).

Not all discussion attempts result in effective and successful comprehension (Sandora, Beck, & McKeown, 1999), and group talk is significantly impacted by the role of the teacher (Almasi, O’Flahavan, & Arya, 2001). Many students have difficulty making sense of texts when reading on their own, resulting in disengagement with the text rather than fostering questioning dispositions. Oftentimes this disengagement results in student responses to teacher questions and probes which are either literal in nature or characterized by inaccuracies and misconceptions (Beck & McKeown, 1994, McKeown, Beck, & Sandora, 1996). Other studies have supported the idea that students are more motivated and engaged when they discuss questions and issues that are important to

them (Almasi, 1995; Almasi, McKeown, & Beck, 1996; O'Flahavan, 1989; Pressley, Wood, et al. 1992).

The classroom environment has also been found to be a key factor in discussion. Almasi, McKeown, and Beck (1996) found that "engagement occurred when teachers provided an environment in which students felt free to ponder or question the text's meaning, content, character motives, text events, or author's craft" (p. 119). However, when members are not permitted to speak freely and express their personal opinions or feel as if their opinions are not valued, then discussion becomes unachieveable (Almasi et al., 1996; Almasi et al., 2001). Research also reveals "when teachers emphasize higher order thinking about texts, students will follow suit" (Alvermann & Hayes, 1989, p. 333).

Recursivity is another characteristic present in successful discussions. Almasi, O'Flahavan, and Arya (2001) found in studying peer discussions that more successful groups revisited prior topics (intertopic coherence) and made linkages between topics (intratopic coherence). They found this recursivity to be critical in the discussion of text and stated "when teachers initiate the majority of coherence and management-related discourse they short circuit student thinking, resulting in less student-to-student discourse and affecting the group's ability to learn how to sustain topics and manage its own group process" (p. 118). They advocate the use of peer discussions which differ from other types of discussion:

> Teachers only step in momentarily to model a particular social or interpretive strategy but otherwise remain on the periphery observing and taking notes as students negotiate topics for discussion, manage the conversation, and attempt to

pull pieces of the conversation together to construct a meaningful interpretation of the text. (p.102)

In contrast to peer conversations where the student takes the lead initiative, Tharpe and Gallimore (1988, 1989) and Goldenberg (1993) describe a more explicit role for the teacher during discussion events called “instructional conversations” (Tharpe & Gallimore, 1988). Instructional conversations are “discussion based lessons geared to creating richly textured opportunities for students’ conceptual and linguistic development” (Goldenberg, 1993, p. 317). Teachers in instructional conversations are often responsible for selecting topics to focus the discussion, providing links to students’ background knowledge, eliciting extended student contribution, and “weaving individual participants’ comments into a larger tapestry of meaning” (Goldenberg, 1993, p. 318). Instructional conversations are by nature instructional in intent and are designed to promote meaning. They differ from other forms of discussion as they are based on the premise that teaching through conversation requires a “deliberate and self controlled agenda in the mind of the teacher” (Goldenberg, 1993, p. 319).

In a model representing the elements of an instructional conversation, Goldenberg (1993), identifies five instructional elements (thematic focus, activation and use of background and relevant schemata, direct teaching, promotion of more complex language and expression, and elicitation of bases for statements or positions) and five conversational elements (fewer “known-answer” questions, responsivity to student contributions, connected discourse, a challenging but non threatening atmosphere, and general participation including self selected turns).

In the Instructional Conversation Model (Goldenberg, 1993), instructional conversations appear to be natural and spontaneous interactions between students and teachers, but what differentiates them from other conversations is the preparation on the part of the teacher and the objectives set for the interaction. Many teachers believe that instructional conversations happen naturally, but research suggests otherwise (Goldenberg & Gallimore, 1991; Tharpe & Gallimore, 1988, 1989). "Instructional conversations are professionally and intellectually demanding teaching/learning events that come neither easily or naturally . . . [and require] considerable time and effort from teachers" (Goldenberg, 1993, p. 322). Goldenberg delineated the following steps to plan a conversation:

> (a) select a story or book that is appropriate for your students, (b) read the story (or book) several times until you feel you understand it thoroughly, (c) select a theme to focus the discussion, (d) provide background knowledge students need to make sense of what they will be reading, (e) decide on a starting point for the discussion to provide an initial focus, plan and think through the lesson mentally; and (g) consider some suitable follow-up activities, particularly ones that will help you gauge what students have learned from the instructional conversation. (p. 323)

Most of the literature focused on discussions, classroom discourse, conversation, peer conversation, or instructional conversations mentions teachers being able to respond effectively to student responses. Linguist James Collins (1982) studied the collaborative nature of discourse during comprehension instruction with both high and low reading group lessons in two primary classrooms with working-class and lower-middle class

black children in Chicago. One of Collin's collaboration measures was of "uptake"—the incorporation of a student's answer into a subsequent teacher question. Collins found that the lower reading groups in both classrooms had fewer teacher uptakes and more instances where coherence of the text broke down as a result of disrupted turns,

In their 1990 study, Pearson, Dole, Duffy, & Roehler found that students constructed individual meaning in response to the teachers' instruction as much as they constructed meaning embedded in the text. If this is indeed the case, teacher and student responsivity should be a critical facet in discussion or instructional conversation investigations. It is thus rather surprising that to date analysis of teachers' responsivity to particular student responses is severely lacking in the literature. In much of the literature, when student responses are included in descriptions, they are usually truncated or referred to as simply "student response." One of the few studies attempting to analyze the exchanges between students and teachers was reported by Gaskins, Anderson, Pressley, Cunicelli, & Satow (1993). Conducting a case study of six teachers (four who taught social studies classes and two who taught reading) at Benchmark School, they developed an elaborate category coding matrix. To evaluate the impact of transactional strategies instruction, they focused on student responses, but the primary interest spotlighted the teacher responses to student responses in a categorical way. For example, teacher response categories included (a) accepting or rejecting the response through evaluative comments, (b) using what the student said to continue the discussion without guiding student thinking, (c) telling a correct response or answer, (d) guiding a student by providing support for student to formulate a response, and (e) explaining thinking by sharing what they are thinking (1993, p. 282). Further coding characterized a responsive

teacher-student interaction by the interactive cycle which at minimum consisted of an initiating question or comment, a response, and a minimum of two additional responses. Although the *quality* or *appropriateness* of the responses on either the part of the student or teacher was not coded, the researchers concluded that "teachers provided feedback that sustained student involvement and processing, prompting students to think more about the topic and develop more sophisticated understandings" (p. 300). Interestingly, little specific evidence of student thinking or understanding was provided in the transcript excerpts. Evidence of individual student responses when in attendance were typically categorized as "student responds" or were abbreviated. As a result the "focus of study was on what the teachers said and did rather than on specific student responses" (Gaskins et al., 1993, p. 285).

Another study by Alvermann & Hayes (1989) found that teacher responses very often limit the conversation. These researchers observed that when teachers expanded upon students' responses, they tended to do so within their own frame of reference rather than that of the students. In a subsequent study they found "this pattern of clarifying without first attempting to understand how students think was prevalent thoughout [the] classroom observations" (Alvermann, O'Brien, & Dillon, 1990, p. 313).

How students are constructing meaning is revealed through discussion and instructional conversations. Once students' thinking is "on the table" teachers can work with this thinking and continue to move students forward in the process of comprehending. However, these conversations require a thoughtful and skillful teacher who is able to work with students' thinking in effective and meaningful ways.

Effective Teachers

Research has revealed that teacher expertise is a critical component in students' ability to become a proficient comprehender (RRSG, 2002). As a result, teacher education and professional development emerged as one of the most frequently mentioned areas of concern in regional meetings of the National Reading Panel (NICHHD, 2000). Despite the crucial role teachers play in a student's ability to become a successful reader, a dearth of research exists to guide how to best teach teachers (Anders, Hoffman, & Duffy, 2000; NICHHD, 2000). In their analysis of teacher education and reading instruction, the National Reading Panel located only 11 preservice studies and 21 inservice studies that met their criteria for inclusion in the review. Consequently conducting a meta-analyses was deemed "inappropriate" due to the paucity of studies. In addition, only 11 of the aforementioned studies measured both teacher and student outcomes. It is important to note however that *The Report of the National Reading Panel* (NICHHD, 2000) only included those studies which utilized experimental or quasi-experimental methods. To further investigate the qualities for effective teaching of reading, additional studies may provide valuable information and insights into what components translate to effective practice. Currently a consensus in the research affirms effective teachers of reading are knowledgeable, strategic, adaptive, responsive, and reflective (Hoffman & Roller, 2001).

Effective Teachers Are Knowledgeable

From the 1960s to the early 1980s, the trend in reading education focused on teachers improving their knowledge base and improving their application of knowledge about both content and methods (Anders et al., 2000). Four reviews of the literature

(Anders et al., 2000; Darling-Hammond, 1999; Hoffman & Pearson, 2000; Pearson, 2001) indicated that well-prepared, certified teachers, as identified by student achievement outcome measures, were more successful than those teachers who lacked subject matter and/or pedagogical knowledge.

Block, Oakar, and Hurt (2002) created a descriptive database of preschool to Grade 5 teaching expertise that distinguished highly effective teachers from those who were less effective in the same schools and neighborhoods. The results of the study include the following: (a) indices of teaching expertise differ by grade level; (b) researchers and practitioners do agree on qualities of teaching literacy expertise; and (c) effective literacy teachers "can be distinguished by their automaticity in executing specialized teaching behaviors and self-regulated strategies" (p. 187). The researchers further concluded that automaticity cannot be developed until teachers have acquired a depth of knowledge and developed skill in applying the knowledge so they are able to respond to students in flexible and meaningful ways. Therefore, possessing specific knowledge is an essential if not inclusive component in defining the effective teacher.

Effective Teachers Are Strategic

Students learning how to comprehend a text is an extremely complex endeavor; consequently, teachers teaching reading comprehension is also extremely complex (NICHHD, 2000). Effective comprehension instruction assists students in taking responsibility for monitoring their own learning and constructing meaning from text independently (NICHHD, 2000; Pressley, Wharton-McDonald, Raphael, Bognor, & Roehrig, 2002). Every student is different and possesses an array of capabilities. As a result, instruction must be provided at different levels of explanation and demonstration

to meet the variability within our learners. To develop independence in every reader, teachers must be able to meet children where they are and take them where they need to go. This type of teaching is tactical in nature and encompasses intensive planning and preparation on the part of the teacher.

Duffy, Roehler and their colleagues (1986) developed the Direct Explanation approach in order to improve on the Direct Instruction approach (Meyer, 1988) used in most early strategy instruction studies. They argued that direct instruction was necessary, but insufficient as it neglected development of students' abilities to apply strategies independently when reading. In the Direct Explanation approach, reading is viewed as a problem solving task and teachers teach students how to think strategically when comprehension breaks down. The focus of Direct Explanation is "developing teachers' ability to explain the reasoning and mental processes involved in successful reading comprehension in an explicit manner" (NICHHD, 2000, p. 4-121). The first study (Duffy et al., 1986) did not conclusively demonstrate that Direct Explanation led to significant improvements in reading comprehension for students. However, results were encouraging enough to conduct a second study that incorporated a much more intensive program of teacher preparation (Duffy et al., 1987). The second study included professional development for teachers in the Direct Explanation approach. Results of the study suggested that Direct Explanation does increase student awareness to think strategically when reading. In addition, the findings of this study included an increase in teachers' abilities to teach strategically. An unexpected finding was the variability of student learning due to the teachers' variability in implementing the Direct Explanation approach. Results indicated that teachers who emerged as more thoughtful and strategic

when implementing the Direct Explanation approach posted results of increased student learning.

Strategic teaching requires scaffolded instruction. When providing scaffolded comprehension instruction, a teacher monitors the students as they attempt to understand and make meaning of the text they are engaged with, determines what is needed at a particular moment, and then delivers the minimal amount of support necessary to get the students "moving forward" in the business of comprehending the text. This kind of teaching is deemed as being "massively metacognitive" (Pressley, 2002, p. 406). Research shows weak teachers scaffold much less than those teachers who are more effective.

Clearly, research has brought to light that teaching strategically is a key component of effective comprehension instruction. Teachers must have a clearly devised plan for teaching students how to interact strategically with text and have the knowledge necessary to carry out such a plan.

Effective Teachers Are Adaptive

Duffy and Roehler (1989a; 1989b) championed the crucial role of direct and explicit explanation in reading instruction and the critical role of the teacher in this process. Because no two instructional situations are identical, different practices are appropriate in different situations. A teacher who is able to adjust instruction to the situation is the teacher who is most effective (Duffy, 2002; Pressley, 2002a). Duffy and Roehler (1989a; 1989b) identified three examples of how teachers can thoughtfully adapt their instruction to meet the needs of their individual students. They define good explainers as teachers who thoughtfully adapt their plans, adapt the modeling they

provide, and adapt across lesson boundaries. The distinction between direct instruction and direct explanation converges around those teachers who are constantly adapting their instruction to provide what their students need to be successful. Instead of imparting "blanket instruction" and adopting an "I taught it" mentality, effective teachers are constantly monitoring their own teaching and student learning. If student comprehension breaks down, teachers provide the appropriate amount of support to keep students on track in the comprehension process.

The importance of being able to adapt instruction to meet the individual needs of students is highlighted in a study by Dole et al. (1996). This study showed that students respond differently to strategy instruction. Further the study revealed that low achieving readers responded well to strategy instruction where the opposite was true for high achieving readers. The authors concluded that "strategy instruction [was] acting as an interference with an already automated, effortless process" (p. 81). If teachers are not able to adapt their instruction to the needs of their students then student progress may be hindered. Obviously, a critical component of this instruction is thoughtfully adaptive teachers who have the capabilities to "harness various ideas, select from a variety of principles and create different instructional combinations" (Duffy, 1992, p. 447) as they work toward meeting the individual needs of their students.

Effective Teachers Are Responsive

Teachers being able to adapt their instruction relies heavily upon their abilities to be responsive to the students they teach. Pressley (2002b) found that many teachers had problems "with many interpretations emanating from reading group discussions that used strategies: Some permitted any interpretation that emerged, regardless of whether it

seemed consistent with the reading and other seemed uncomfortable with anything except standard interpretation" (p.21). Responding appropriately to student responses in order to "keep moving them forward" in the comprehension process is not a simple task. Brown et al. (1996) found that it took teachers approximately three years to become an expert in the transactional strategies approach which relies heavily on teacher responsiveness.

Lee (2001) addressed the complexity of this challenge in a description of one teacher's responses to student contributions:

> In order to respond in the moment to these observations, the teacher had to deconstruct the students' thinking at a deeper more structural level. She then had to map her perceived understanding of the deep structure of the students' thinking to her own cognitive map of the domain (in this case, response to literature, more specifically interpretation of fiction). The teacher's response involved much more than affirming a correct or anticipated response to a performed question. (p. 129)

Lee also provides a specific example of how the teacher made a student's use of comprehension strategies visible to the entire class:

> Shanee has done something that's very, very powerful for us as readers and that is to look for things that seem to be the same, situations, things that maybe happened to different characters, different people in the story, but they're the same thing. They are always there for a reason, for a purpose, and that is one of the things good readers do is to think about that. And that's an interesting observation. (2001, p. 129).

This responsiveness or uptake on the part of the teacher is most powerful in reading instruction and may be a defining characteristic between exemplary and less effective reading teachers (Maloch et al., 2003). Duffy and Roehler (1987) deem this interactive responsiveness as "the heart of instructional effectiveness, because it is teachers' sensitivity to students' restructuring and their responsiveness to these understandings which determine what students ultimately come to understand" (p. 417). To respond effectively, teachers "must be able to comprehend students' thinking, their interpretations of problems, their mistakes, and their puzzles. And, when they cannot comprehend, they must have the capacity to probe thoughtfully and tactfully" (Cohen, 1988, p. 75).

Effective Teachers Are Reflective

Effective teachers reflect on their practice to determine what went well, what did not go well, and what they can do differently in future reading instruction. This reflection builds fluency in being able to respond constructively to student uptake and errors. The Reading Recovery program developed by Clay and implemented in the United States through a collaborative arrangement with Ohio State University (Lyons, Pinnell, & DeFord, 1993) provides evidence for reflection resulting in instructional improvements. What is unique about the Reading Recovery training is that procedures are carried out in various teaching scenarios. Results of the study suggested when teachers engaged in reflection about teaching steeped in these myriad scenarios, changes in classroom practices were evident.

Interestingly, years of teaching experience does not always correlate to a teacher's predisposition to reflect. A study conducted by the International Reading

Association's National Commission on Excellence in Elementary Teacher Preparation of Instruction identified programs at eight colleges or universities as excellent in teacher preparation and followed 101 preservice teachers in order to explore differences of beginning teachers from three different programs. This study found that graduates of recognized programs tended to speak in clear and thoughtful ways about their instruction, with a focus placed on assessing and meeting students' needs. In fact, in interviews, these beginning teachers discussed their teaching in ways similar to more experienced teachers in studies of influential and effective teachers (Maloch et al., 2003).

In preliminary work on teacher mentoring, Pressley, Roehrig, and their colleagues (2003) discovered that mentoring worked only with those preservice teachers who were open to it.

> Invariably, engaging effective teachers believe they have much, much more to learn about teaching, despite the fact that they are already pretty good by any objective measure of their teaching. In contrast, less effective teachers are much more likely to be comfortable with their teaching, much more certain that they are good teachers already and do not need to improve. (p. 406)

Teachers who believe that their teaching can be improved are more likely to reflect upon their current practices than those who do not. What is both startling and disconcerting is Pressley's finding that those who do not believe they need to improve their teaching are often times those very teachers who are unaware that they are not very good teachers and that their students learn very little.

Teacher Preparation

Hoffman and Pearson (2000) in a discussion of teacher preparation distinguish between training teachers and teaching teachers. They use the term *training* to refer to those direct actions of a teacher that are designed to enhance a learner's ability to do something fluently and efficiently and *teaching* as the intentional actions of a teacher to promote personal control over and responsibility for learning within those who are taught" (p. 32) .

While many educators argue that training is a precursor to developing the higher levels of thinking required in teaching (Cruickshank, 1987; Joyce & Showers, 1988), others caution that the broad application of training principles to all of teacher education may not meet the reality of teaching which is fraught with constantly changing conditions (Hoffman & Pearson, 2000). An illustrative study conducted by Duffy & McIntyre (1982) studied the audio tape transcripts, field notes, and interview notes of six primary grade teachers. They observed teachers predominantly monitoring pupils through commercial materials, with the focus being to evaluate and react to errors. Most startling was the teacher belief that this is how they were supposed to instruct. These teachers did not view themselves as decision makers who could and should select from alternatives.

Whether referring to inservice or preservice teachers, developing thoughtful and reflective *readers* requires instruction provided by thoughtful and reflective *teachers*. Current instruction in teacher education programs does not always educate teachers in how to become strategic themselves, but rather trains the teacher in an assortment of "what works" strategies without revealing that "what works" depends on the text, the

reader, and context of the instructional moment. Based on survey research, Maloch et al. (2003) concluded that teacher preparation is a . . .

> complex and intricate venture that encompasses much more than following a prescribed list of content that all teachers should know . . . it must include preparation in how to continue to develop professionally and how to negotiate the challenges of the culture of teaching. (p. 453)

Learning how to provide this type of instruction takes time to develop and cannot be packaged and sold. Goldenberg and Gallimore (1991) note that professional development is "more than a one-shot workshop" (p. 1). A commitment to developing teachers who can respond flexibly and fluidly to students necessitates replacing one-shot workshops with teacher education/staff development experiences that account for the complexity involved in teaching [students] how to be strategic and for the creative adaptations teachers must make as they deal with that complexity" (Duffy, 1993, pp. 244-245). In other words, training teachers may be appropriate and even a necessary first step in certain situations, but it is hardly sufficient for teaching them how to teach.

Despite the overwhelming evidence that we must prepare our teachers for the complexities of classrooms, Cohen (1988) argues that few changes have been made in teacher preparation programs:

> College and university teaching seems to have changed little during the course of this century. There is scant evidence that innovations designed to improve instruction have been adopted or used. Indeed, the evidence suggests less innovation here than in the lower schools. The argument for incentives is thus no

more compelling than explanations that focus on the conditions of teaching, defects in reform, or problems of organization. (p. 37)

Specific to reading and literacy, *The Report of the National Reading Panel* (NICHHD, 2000) noted that comprehension strategy instruction has been a focus for more than 20 years; however, they also noted that very few studies have been conducted on how to best teach preservice teachers in the use of strategy instruction. Recommendations posed by The National Reading Panel call for a "greater emphasis in teacher education and the teaching of reading comprehension" and state that "such instruction should begin at the preservice level, and it should be extensive, especially with respect to teaching teachers how to teach comprehension strategies" (p. 4-125).

Responding to *The National Reading Panel Report* (NICHHD, 2000), the International Reading Association (2003) has called for "a major investment in teacher preparation" (pp. 4-119-4-131). Research has shown that teachers do learn what they are taught (Darling-Hammond, 1999; Hoffman & Pearson, 2000; Pearson 2001) and that well designed teacher preparation programs have a positive effect on reading outcomes (RRSG, 2002). A longitudinal study conducted by The National Commission and Sites of Excellence in Reading Teacher Education investigated experiences of graduates from eight reading teacher preparation programs that were deemed as "excellent" (Harmon et al., 2001). The first year finding from teachers graduating from the eight programs indicated that "they were responding to students' needs in flexible, knowledgeable, and strategic ways" even "in the face of mandated curricula and high stakes testing" (Maloch, Fine, & Flint, 2002, p. 349).

Unfortunately not all programs are exemplary. Some beginning teachers have as many as 24 semester hours designated to reading instruction while other preservice teachers may receive as little as 3 hours (Hoffman & Roller, 2001). Such inequities in our teacher education programs may underscore why the use of scripted programs has become common place in our schools.

Reading instruction like education is not static but is in constant flow and turbulence. To cope with this constantly changing tide, research should not focus solely on the instructional technique but invest significant time in developing thoughtful and adaptive teachers (Anders, Hoffman, & Duffy, 2000; Harmon et al., 2001; Duffy, 2002, Pressley, 2002a). Research clearly supports the idea that there is no single instructional technique or instructional package that will work for all students. What is required is intensive *teaching* that develops the knowledge, skills, and disposition in preservice teachers resulting in their ability to "lead students to greater awareness of what it means to be a strategic reader and to the goal of improved comprehension" (NICHHD, 2000, p. 4-125).

Teaching children how to comprehend is an exceedingly complicated undertaking. It takes a teacher who is knowledgeable in reading comprehension, comprehension instruction, instructional conversations, and is able to thoughtfully respond to students to meet their varied individual needs. Providing the highest level of comprehension instruction embeds strategy instruction within the authentic context of students engaging in conversations over text. Duffy, in his presidential address to the National Reading Conference, described his shift from viewing teacher preparation as a time to train preservice teachers in effective instructional skills and strategies to

conceptualizing it as a time to develop reflective and responsive decision makers. He argued:

> [W]e must make a fundamental shift from faith in simple answers, from trying to find simple solutions, simple procedures, simple packages of materials teachers can be directed to follow. Instead, we must take a more realistic view, one which Roehler (1990) calls “embracing the complexities.” (Duffy, 1991, p. 15).

Clearly “reading comprehension cannot be routinized” (NICHHD, 2000, p. 4-125). It is imperative that researchers and teacher educators begin examining the kinds of instructional conversations that foster comprehension and higher-order thinking among young students. Equally important, are explorations and investigations of the most effective ways to prepare preservice teachers to facilitate these conversations.

CHAPTER III.

METHODS

This chapter describes the design of the study and is organized into six sections: (a) an overview of the study, (b) the research design and goals, (c) the setting and participants, (d) the theoretical sensitivity, (e) the materials, and (f) the data collection and analysis.

Overview of the Study

Prior research has primarily focused on the comprehension of the skillful reader, effective comprehension instruction, characteristics of the effective teacher, and identification of the elements of instructional conversations. Absent from this body of literature, however, are studies investigating the differences in conversations of preservice teachers when an instructional framework and explicit conversational scaffold is in place. Thus, this study attempted to explore reasons for the variances in preservice teachers' instructional conversations during an interactive read-aloud with elementary students using an instructional framework and explicit conversational scaffold. Twenty-three preservice teachers enrolled in their first reading instruction class participated. Working as the instructor and as the researcher conducting the study, I used transcript analysis to analyze preservice teachers' conversations with their second and fourth grade

students during an interactive read-aloud. All the preservice teachers taped and transcribed their instructional conversations using one of three different texts at the beginning, middle, and end of a ten week lab. In addition, preservice teachers were required to compare and contrast their ability to facilitate instructional conversations about text and provide evidence that they had increased their skill in thoughtfully adapting instruction in a final paper. The research question guiding this study asked:

> *What theory explains the differences evident in preservice teachers' instructional conversations with elementary school students when an instructional framework and explicit conversational scaffold is used?*

This question provided me with the flexibility and freedom to explore the phenomenon of preservice teachers' instructional conversations in depth (Strauss & Corbin, 1990, p. 37). Coding of the data resulted in the formation of categories from which the following questions emerged:

1. What differences exist in preservice teachers' instructional conversations with students before implementation of the instructional framework and explicit conversational scaffold?
2. How do preservice teachers' instructional conversations with students change over time as a result of the instructional framework and explicit conversational scaffold?
3. What characteristics defined higher level instructional conversations?
4. What characteristics defined lower level instructional conversations?

Research Design and Goals

My goal was to describe and tentatively explain the differences present in preservice teachers' instructional conversations with elementary school students. To accomplish this goal, I employed the detailed view that qualitative research provides to observe what was actually occurring during preservice teachers' interactive read-alouds in order to develop an increased sensitivity to the differences in conversation. This detailed view would not only serve to increase my understanding of preservice teachers' instructional conversations over text, but also to inform my future reading instruction of preservice teachers.

The mode of qualitative analysis guiding this study is the grounded theory approach. Grounded theory refers to explanations that emerge from the collected data. Grounded theory study may be used to address problems that emerge out of professional experience in the belief that a good research study might help to correct the situation (Strauss & Corbin, 1990, p. 35). Often referred to as "the constant comparative method of analysis" (Glaser & Strauss, 1967, pp. 101-116) in the literature, this method enables a researcher to ask questions of the data and to make comparisons that elicit new insights into the observed phenomenon (Strauss & Corbin, 1990, p. 31).

Participants and Setting

The participants in the study were 23 preservice teachers enrolled in an undergraduate reading methods course taught by the primary investigator at a state research university in the southeastern United States. All the preservice teachers were white. The gender of the participants consisted of 22 females and 1 male. Class standing

of the participants included 3 sophomores, 16 juniors, 3 seniors, and 1 master's level student with prior teaching experience who was taking the class as an elective. Of the undergraduate students, 15 were elementary education majors and 7 were early childhood majors.

The course is the first in a series of two reading courses required of all teacher candidates pursuing Early Childhood or Elementary Education certification. The course is taken during the first semester subsequent to a student's admission into the Teacher Education Program. Content is comprehensive in nature and includes the five research based components of phonemic awareness, phonics, vocabulary, fluency, and comprehension instruction.

Typically, three sections of the course are offered during fall semester and two sections are offered spring semester. Approximately 140 preservice teachers take the course during a given year, with enrollment for each section ranging between 25-35 students. Students are enrolled in either a Monday/Wednesday or Tuesday/Thursday sequence. Each class meets for 2 hours twice a week for 16 weeks and includes a 10 week (20-hour) lab component in which preservice teachers implement instructional procedures taught in the course with 3-5 elementary school students. Each of the 10 labs is 2 hours in length and conducted in a local elementary school classroom within five miles of the university.

Preservice teachers spend one morning per week during the 10-week lab sequence in an elementary school. The elementary school serving as the setting for this study has an enrollment of approximately 410 students in first through fifth grades. The majority of the elementary students are from middle class socioeconomic backgrounds,

with 27% of the school population classified as minority and 28% of the population receiving free lunches. The school employs 32 teachers, along with a principal and assistant principal. Preservice teachers worked with students from three second grade classrooms and two fourth grade classrooms. Individual classrooms reflected students of various ability levels and were considered by the school to be homogenously grouped. Preservice teachers were randomly assigned to a second or fourth grade classroom where they worked with heterogeneous groups of 3-5 students. During this time, classroom teachers provided small group instruction to their most struggling readers. Preservice teachers worked with the same group of students throughout the semester. After the teaching labs, I facilitating 60 minutes of whole group reflection and instruction in a trailer located on the grounds of the elementary school.

Theoretical Sensitivity

Theoretical sensitivity is a term associated with grounded theory and refers to a personal quality of the researcher. This sensitivity is developed to varying degrees dependent on a researcher's knowledge of the studied phenomenon, professional experience, and interactions with data (Strauss & Corbin, 1990).

As a doctoral student and graduate teaching assistant in reading education, I immersed myself in the literature to include readings on theory, research, and other publications such as the government document *The National Reading Panel Report* (NICHHD, 2000). However, as I proceeded through the data analysis, my literature focus narrowed to those writings on (a) successful readers, (b) comprehension instruction, (c) instructional conversation, and (d) effective teachers. Developing a rich

background in these areas enabled me to view the observed phenomenon from multiple perspectives and sensitized me to what is occurring in the data.

In addition to the literature, my professional and personal experience is another contributor to my sensitivity. I have five years teaching experience at the elementary school level with students similar to those observed. I used my knowledge of elementary school students and reading curriculum to guide my understanding of the setting where data were collected and the kinds of interactions I observed during the instructional conversations between the preservice teachers and their second and fourth grade students. As a teacher and mother who struggled to teach her students and son how to read and comprehend a text, I could make comparisons between my attempts to hold instructional conversations and my preservice teachers' conversations with their students. Inclusively, these experiences provided me with insight into the observed phenomenon and helped me to understand events and actions more quickly than if I had not had this background to bring to the research (Strauss & Corbin, 2000, p. 42).

Theoretical sensitivity further developed as I interacted with my data. As I analyzed the transcripts, lesson plans, tapes, reflections, and papers, I began collecting and asking questions about the data. I attempted to determine what the data were revealing to me, and making comparisons and developing frameworks about concepts and their relationships. I then used these frameworks to once again compare and revisit the existing data. This increasing sensitivity to the concepts, their meanings, and relationships is why it is crucial to interweave data with analysis in a grounded theory study as each feeds into the other increasing insight and recognition into the observed phenomenon (Strauss & Corbin, 2001). As I moved through the data, I would

intermittently step back and ask myself if the concepts I thought I saw were fitting the reality of the instructional conversation data. I also maintained an attitude of skepticism throughout the data analysis. All of my categories, explanations, and questions about preservice teachers' instructional conversations were regarded as provisional. They were always checked against the actual data and never accepted as fact. I also carefully followed standard research procedures throughout the data collection and analytic procedures to help eliminate bias and examine any of my assumptions that might have led to an unrealistic reading of the data.

Materials

The materials used in the study took a variety of forms. Three different instructional scaffolds (comprehension notes, modeled lesson plan, and K-W-L reflection chart) and one conversation scaffold (K-W-L cards) were used to assist preservice teachers in their ability to facilitate student comprehension during the interactive read-alouds. In order to develop preservice teachers' comprehension knowledge, specific notes and instruction in comprehension instruction were provided (see Appendix A). Before the teaching event, preservice teachers used a modeled lesson plan (see Appendix B) to guide their planning for the instructional conversations. During the lesson, preservice teachers used the conversation scaffold of K-W-L cards to guide the instructional conversations (see Appendix C). In addition, they used their lesson plans to provide prompts and deliver organized and meaningful instruction. At the end of the teaching event, the preservice teachers used a K-W-L chart (see Appendix D) to

structure class discussion and reflection. This discussion and reflection of teaching was at the heart of the learning situation.

Three narrative picture books were used in the interactive-read alouds during the study. The National Reading Panel (NICHHD, 2000) noted that while there is little research at the kindergarten to second grade level on reading comprehension and that an important topic at this level is the relationship between listening comprehension and reading comprehension (p. 4-126). In an interactive read aloud, teachers do the reading so that students can focus all their cognitive resources on comprehension of the text. In addition, teacher read-alouds have been shown to be a good starting point for introducing critical strategies for comprehension, as students can "focus on the strategy being introduced without actually having to read" (Ivy, 2002, p. 241).

For the first read-aloud, each of the preservice teachers was randomly assigned one of three narrative picture books. The books were selected based on readability levels, illustrations, and potential high student interest. The books also possessed themes which are common in children's literature. *Hedgie's Surprise* by Jan Brett (2000) deals with two themes, gluttony and friendship. The main characters are Hedgie (a hedgehog), Henny (a hen), and Tomten (a gluttonous boy). In this story, Henny desperately wants to raise a family of baby chicks, but Tomten keeps stealing and eating her eggs. Hedgie sympathizes with Henny's plight and offers to help her foil Tomten's efforts to steal her eggs. Cleverly they manage to thwart Tomten's attempts. The book concludes with Henny and Hedgie emerging from the henhouse with the new baby chicks. The book has vivid illustrations and the borders of the pages provide clues as to past and upcoming events in the story.

Sylvester and the Magic Pebble by William Steig (1969) is a Caldecott Medal winner with the primary theme of being careful what you wish for. The main character in the story is a donkey named Sylvester who finds a magic pebble that will grant his every wish. Unfortunately, he is startled by a lion and wishes to be a rock to elude the danger. He remains a rock for a year before the pebble is placed upon him by his picnicking parents and he has the opportunity to wish himself back to his former donkey state. The book is full of interesting words and a great source for vocabulary development and discussion.

The Three Questions by Jon Muth (2002) is based on a story by Leo Tolstoy. In this story Nikolai (a young boy) announces that he "wants to be a good person" to his friends Sonya (a heron), Gogol (a monkey), and Pushkin (a dog). He believes that if he could find answers to what he believes are the three most important questions then he would "always know what to do." He goes in search of the wise old turtle in order to have his questions answered but finds that his experiences along the journey have already revealed the answers to each of his questions. *The Three Questions* provides many opportunities for personal student contributions and connections as the questions of "When is the best time to do things?," "Who is the most important one?," and "What is the right thing to do?" are pondered by the main character, Nikolai.

After providing preservice teachers with a copy of their assigned text, I read the protocol for the instructional conversation (see Appendix E) during the final 30 minutes of the third Monday class session. I repeated the procedure at the mid-point of the semester and at the end of the semester. The protocol for the instructional conversations states one of the class assignments for the preservice teachers is to compare and contrast

the ways they engage students in instructional conversations about text at the beginning and the end of the semester. I then informed the preservice teachers that on Wednesday they would be reading a book aloud to 2-3 students at a local elementary school. Their lesson objective encompassed engaging their students in instructional conversations about the book they were reading. The preservice teachers were instructed to tape record the reading and ensuing conversation and transcribe their tapes following a model provided by the teacher/researcher. I explained to the preservice teachers that the purpose of this instructional conversation and transcription was to enable me to compare and contrast their performance at beginning of the semester to their performance at the end of the semester. I emphasized that I was most interested in how they view the instructional conversation process and their developing skill to facilitate a conversation about text with children. I then told the preservice teachers they would plan independently for the instructional conversations and provided them with 20 minutes to read through the book and draft a preliminary lesson plan. At the end of the 20 minutes, I collected the books but permitted the preservice teachers to keep and add to their notes for use in the upcoming read-aloud.

The explicit conversation scaffold I developed with my mentor professor and used in this study is a modification of Ogle's (1986) K-W-L chart. Using the K-W-L chart as a framework for the explicit conversation scaffold, we made modifications to make it more appropriate for the interactive nature of the conversations. Historically, K-W-L charts have been shown to facilitate comprehension as students assess what they "Know" and "Want to know" before reading a text. Students then record what they have "Learned" at the completion of reading a text to compare if their "Want to know" items

have been addressed. We modified the original K-W-L by breaking the chart into three separate 4 X 6 cards. We instructed our preservice teachers to use the KNOW card to make connections or make visible to students their use of prior or background knowledge assisting in their comprehension of a text. Second, we instructed preservice teachers to use the WONDER card to scaffold self-monitoring during the introduction or interactive reading of a text. The WONDER card addressed three particular types of reader wonders, represented by three graphics displayed on the card: a magnifying glass for word wonders, a crystal ball for predictions, and a question mark for general or lingering questions. Finally, we instructed our students in the use of the LEARN card to prompt students to make inferences, confirm predictions, or summarize during the reading process. I e-mailed the 4" X 6" colored KNOW, WONDER, and LEARN cards to preservice teachers as a Microsoft Word file at the beginning of the semester. The preservice teachers were told to print the cards out on cardstock and laminate them.

It is important to note that prior to the first instructional conversation, I e-mailed the preservice teachers the KNOW, WONDER, and LEARN cards. In addition, I modeled use of the cards during a reading of *Why is the Sky Blue*? by Sally Gridley (1996) on the first day of class. However, I did not require or explicitly teach how to use the KNOW, WONDER, LEARN cards to the preservice teachers prior to their first instructional conversation. After conducting their first instructional conversation, I then taught preservice teachers how to use the KNOW, WONDER, and LEARN cards using a modified version of an explicit teaching model (Duffy, Roehler, Meloth, & Vavrus, 1986). In summary, I told the preservice teachers to (a) introduce the selection to be read to their students, (b) make an explicit statement about the strategy to be learned, (c)

provide modeling of their thinking during the reading, and (d) provide and respond to student practice in the strategy. I then modeled the use of the K-W-L cards and provided guided practice as they used the cards during a simulated lesson. During their independent practice I provided written feedback as I observed them in the lab situation. For the lessons, I instructed the preservice teachers to lay all three cards facing the students so that the WONDER and LEARN card were closest to the students with the KNOW card closest to the teacher, but strategically placed directly behind the WONDER and LEARN cards (see Appendix F). As the preservice teachers modeled and probed students for their WONDERS and LEARNS throughout the interactive read-aloud, I instructed them to make evident the role that background knowledge plays in the comprehension process by connecting to the KNOW card.

Use of the K-W-L cards forced students to engage with the text and verbalize their thinking. This process of "thinking aloud" while reading is known to be effective for enhancing comprehension abilities because the reader must verbally express the type of mental processes associated with reading that are not readily observable (Baumann, Jones, & Seifert-Kessell, 1993; Davey 1983).

I also provided preservice teachers with a sample lesson plan from the demonstration lesson for them to use as a model and template when planning for their interactive read-aloud lessons. My lesson plan included the objective for the lesson, materials needed, pre-reading, during reading, and after reading components. I required the use of the KNOW, WONDER, and LEARN conversation scaffold in each lesson plan and modeling of prompts to stimulate conversation if needed. I required the use of prompts instead of questions as research suggests that a more effective plan is for the

teacher to model his or her own mental process as he or she reads aloud to students (e.g. Duffy, Roehler, & Herrmann, 1988). I emphasized the importance of teachers' relating their actual thoughts rather than a set of procedures because differences in texts and differences in readers' schemas about a particular topic require that students be flexible in their strategy use (Duffy, Roehler, Meloth, Vavrus, Book, Putnam, & Wesselman, 1986; Duffy, Roehler, Sivan, et al., 1987). I provided preservice teachers with feedback on their written plans and added observational notes I took during their implementation of the lesson. I then reviewed my notes and added additional comments before returning the plans to the preservice teachers the following class period.

Before, during, and after the lab teaching I used another modification of the K-W-L chart (Ogle, 1986) as a reflection scaffold. Paired as teacher teams, one of the preservice teachers was identified as "the teacher" and another as the "coach" swapping roles each week. Immediately before the lab, I highlighted between two and four research based components (KNOWS) that the preservice teachers should be able to recognize in the teaching situation and asked the preservice teachers to record examples from the reading event in the "K" column of the reflection sheet.

I also instructed the non-teaching partners to record any questions that emerged (WONDERS) as they observed the conversation within the interactive read aloud in the "W" column of the reflection sheet. For example, during the initial demonstration lesson a student volunteered to make a sentence with the word "possess." I asked the student to share her sentence and she responded "I possess my little brother." At that particular moment, I could not immediately respond to the student in a meaningful as to why that was not an appropriate use of the word "possess." This was recorded as a "W" on the

majority of the preservice teachers' K-W-L reflection chart. The "W" column became synonymous with "What was going through your head when the student said . . ." I then used this specific instance to discuss and investigate possible responses to the specific teaching moment with the goal of building teacher fluency.

The "L" column reflected insights gained by preservice teachers through the process of identifying a specific instructional moment and participating in the ensuing group discussion (LEARNED). For example, when the student contributed "I possess my little brother," many preservice teachers identified this as a specific instructional moment. During the whole group discussion and reflection preservice teachers concluded it is better practice to tell students "let me think about that because it just doesn't sound right" than to provide an inappropriate or "off target" response to a student contribution. This characteristic of teacher responsivity was an insight for many of the preservice teachers and was thus recoded in the "L" column of their chart.

I collected the K-W-L reflections at the end of each session and provided instructional feedback on the sheets. In addition, when noticing recurring themes across K-W-L reflection charts, I attempted to address those in subsequent class sessions.

Data Collection and Analysis

Data Collection

Data for this study included the preservice teachers' transcripts of their three instructional conversations, lesson plans, reflections, and final papers. Preservice teachers submitted materials at the end of the semester. However, the audio recordings and resulting transcripts of preservice teachers engaging in instructional conversations

over text along with the final paper provided the most insightful data for this study and served as the primary data source. Preservice teachers were required to collect three data sets of instructional conversations they had facilitated with their small groups of students during interactive read-alouds using each of the three randomly assigned texts. They completed this procedure during the first weekly session with their students, the fifth weekly session with the students, and the ninth weekly session with the students. Between each recorded conversation/ transcription they engaged in three interactive read-alouds which were not recorded nor transcribed. I provided feedback on all ten lab lesson plans, observations, and reflections, whether they were recorded and transcribed or not. In the final paper, the preservice teachers compared and contrasted their three conversations in response to the question "What evidence exists that I have increased my skill in facilitating instructional conversations about text?"

The data segments used in this study were taken verbatim from the preservice teachers' transcripts and final papers. Lesson plans and reflections were used to support or refute what I believed to be emerging from the primary data source. All preservice teachers were randomly assigned a code number from 1-23. This code number was then applied to all three transcripts, lesson plans, reflections, and final paper (e.g., PST 1). Names of preservice teachers were then eliminated. Transcripts were identified as either originating from the first session with students (i.e., -1), the fifth session with students (i.e., -2), or the ninth session with students (i.e., -3). Final papers were identified by the abbreviation "fp." Four separate sets of data for each preservice teacher were thus included in the analysis. For example, for preservice teacher number 12 the following

data was reviewed and coded: PST 12-1 (transcript 1), PST 12-2 (transcript 2), PST 12-3 (transcript 3), and PST 12-fp (final paper).

Data Analysis

The constant comparative method (Glaser & Strauss, 1967) was used to analyze and reduce the data into codifiable categories. Initially, the focus of the study was to determine if preservice teachers' implementation of comprehension strategies was evident in their conversations and if these instances led to higher levels of conversation. However, as I read and coded the conversation transcripts, papers, lesson plans, and reflections looking for quantitative differences in comprehension strategies, a pattern of interaction between the preservice teachers and their students began to emerge. This emerging revelation from the data became the focus of the ensuing study. From these initial observations I began to examine the data for specific patterns of actions and interactions during the instructional conversations. Coding of the data consisted of marking chunks of discourse (Evertson & Green, 1986) and grouping those chunks that appeared to be connected or related. As I grouped these chunks of discourse, patterns in the data began to emerge. From these patterns I began to induce categories that typified chunks of conversation. Using constant comparative analysis (Glaser, 1978), I compared, analyzed, and coded preservice teachers' transcripts, lesson plans, reflections, and final papers to understand the phenomenon taking place. This analysis resulted in the emergence of categories and links between categories in the data. As a result, I began to ask questions and make comparisons between the emerging categories and new data (Strauss & Corbin, 1990, p. 31). Working inductively, I looked for evidence to support or refute the emerging categories and theory. I found large numbers of incidents which

supported each category. Occasionally, a section of a lesson would be primarily coded under one category but would also have characteristics which could be aligned with another category. Although rare, when this occurred I multiple-coded this section of the transcript. When no new data were found that supported additional categories, the categories were considered saturated.

CHAPTER IV.

RESULTS

This chapter describes the results of the study and is organized into five sections: (a) an overview of the study, (b) the findings from Research Question 1, (c) the findings from Research Question 2, (c) the findings from Research Question 3 and 4, and (d) a summary of the research findings.

Study Overview

Prior research has focused on the comprehension of the skillful reader, effective comprehension instruction, characteristics of the effective teacher, and identification of the elements of effective instructional conversations. However, these studies do not fully explain why levels of conversation differ during preservice teachers' instructional conversations when an instructional framework and explicit conversational scaffold is used. The guiding purpose of this study was to explore preservice teachers' instructional conversations over text with elementary school students when provided with an instructional framework and explicit conversational scaffold.

Findings Related to Research Question 1

What differences exist in preservice teachers instructional conversations with students before implementation of the instructional framework and explicit conversational scaffold?

To ensure that differences in conversation over time were a result of the instructional framework and explicit conversation scaffold, the initial conversations were examined for preexisting elements and trends. Analysis of the data for this question focused solely on the patterns revealed through a comparison of the preservice teachers' first transcripts of their instructional conversations during an interactive read-aloud. While differences were present in the initial conversations, the most interesting finding was the consistent similarities present in preservice teachers' conversations with the elementary school students. The similarities in the initial transcripts are presented below.

Teacher Talk

The most noticeable similarity between initial transcripts was the ratio of teacher to student talk. Using word count as the measure of analysis, transcripts of instructional conversations overwhemingly (22 of the 23 transcripts) featured more teacher than student talk during the pre-reading and actual reading segments of the instructional conversations. However, in 4 of these 22 transcripts, student talk did outweigh teacher talk, but only when including talk occurring after the conclusion of the formal instructional conversation. Therefore, only those turns that were part of the pre-reading, reading, or after reading segments of the instructional conversation were included in the analysis. Using this measure, these four transcripts yielded more teacher than student talk and were coded as such.

Pattern of Discourse

A second similarity that emerged from a holistic observation of the initial data is the pattern of discourse present in the conversations. Of the 23 transcripts, 21 predominantly reflected an Initiate-Respond-Evaluate (IRE) pattern of discourse (Cazden, 1988; Mehan, 1979) versus a conversational one. These 21 transcripts featured conversations beginning with an initiating question, expectation of a student response, and evaluation of student response when provided. Instances of this type of talk register were also present in the four transcripts reflecting a more conversational tone (characterized by fewer "known-answer" questions and responsiveness to student comments). Overwhelmingly, preservice teachers reverted to periods of IRE participation structure throughout their initial conversations with elementary school students. This is not a surprising finding considering that most classroom discourse follows the initiate, respond, and evaluate model (Durkin, 1978/1979; Pressley, Wharton-McDonald, Mistretta-Hampston, & Echevarria, 1998) and that preservice teachers learn what they have been taught (Darling-Hammond, 1999; Hoffman & Pearson, 2000; Pearson, 2001).

Teacher Uptake and Responsivity

The predominance of the IRE (Cazden, 1988; Mehan, 1979) pattern of discourse resulted in limited occurrences of teacher uptake; defined as understanding or comprehension of the student contribution, and limited examples of responsivity, defined as the ability to respond appropriately and quickly to a student response (*Webster's Ninth New Collegiate Dictionary*, 1986). The coding of transcripts revealed few instances of preservice teachers incorporating student responses into their

subsequent responses to an initiating question. When preservice teachers did elaborate on a student response, it was generally in the form of a text to self connection which frequently led students away from building meaning of the text.

Evaluation of Student Responses

In all of the 23 initial transcripts of instructional conversations, preservice teachers positioned themselves as "the authority," controlling not only the instruction but also the participation structure. For example, consider the following exchange:

PST 5-1: Is that how you would have eaten the strawberry? [Initiating question]

S1: No. [Response]

PST 5-1: How would you have eaten the strawberry? [Probe]

S1: With whipped cream. [Response]

PST 5-1: Oooh, that would have been good. [Evaluate] How about you? [Initiate]

S2: Regular. [Response]

PST 5-1: Regular, yeah, that's how most people eat strawberries. Without the cooking. I bet it made it mushy. [Evaluate] Okay.

Here, the preservice teacher initiates the question with the student, expects and receives a response, probes for further information, and then evaluates the response based on her perspective of how strawberries are eaten. She then queries another student and the process is repeated. Preservice teachers' initial transcripts reflected the predominant characteristic of evaluating students' responses based on their own frame of reference. This constant evaluation or validation of student response resulted in placing themselves in the role of "authority figure," leading and directing the conversation throughout the initial transcripts.

Use of Comprehension Strategies

Teacher Asking Questions

Another characteristic evident through an examination of the initial transcripts is reflected in the above example. While the preservice teachers often used the effective comprehension strategy of teachers asking questions and probing after receiving an initial student response (NICHHD, 2000), they often posed low-level questions and probes. These types of questions frequently did not facilitate students' comprehension of the story and in many cases actually led students away from the text. For example, in the story *Hedgie's Surprise*, the strawberry is a very small detail and just one of many kinds of food that Hedgie and Henny use to substitute for one of Henny's eggs. Questions and probes which engage the students in talk about how they prefer their strawberries and talk about how cooking may make strawberries "mushy" actually lead students away from actively building meaning of the text—which is the ultimate purpose of reading (Pearson, Roehler, Dole, & Duffy, 1990; Rosenblatt, 1978).

Collaborative Learning

The initial instructional conversation discourses exhibited almost exclusively teacher to student transactions, with few utterances occurring between students. In addition, it was rare for a teacher/student or student/student exchange to build upon or extend previous utterances which is a necessary characteristic of collaborative learning to occur. Typically, if a follow up utterance was present, it was in the form of an additional low-level question posed by the preservice teacher, such as when the preservice teacher asks the student "Is that how you like your strawberries?" to which the student responds "No," and the preservice teacher follow-up is another low-level

question asking “How would you have eaten the strawberry?” Occasionally preservice teachers would purposefully engage other students in the exchanges, but rarely did this result in the level of conversation being raised among the participants.

Other Strategies

Some uses of research based comprehension strategies were present in the preservice teachers’ conversations. Students answering preservice teachers’ questions was the predominant comprehension strategy used by preservice teachers in the initial instructional conversations. Summarization was also used by the preservice teachers, but to sequence events rather than to facilitate students’ understanding of the “big ideas” in the text. Initial transcripts were void of the use of graphic and semantic organizers and multiple strategy use where students learn to use strategies flexibly and in combination when interacting with their preservice teachers over text.

Comprehension Process Modeling

Metacognition includes “the ability of individuals to reflect on their own cognitive processes and includes knowledge about when, how, and why to engage in various cognitive activities” (Baker, 2005, p. 62). Metacognitive control as applied to reading includes self-monitoring, which entails whether or not a student understands or constructs meaning as they read and self-regulation which occurs when a student realizes comprehension has broken down and takes appropriate steps to correct whatever has caused comprehension to fail. Few examples of self-monitoring were present in the preservice teachers’ initial transcripts. Occasionally a preservice teacher would reveal their use of self-monitoring through a personal connection to the text (e.g., “When I read this I thought about how scared my mom and dad would have been if I disappeared.”).

However, there were no instances where self regulation was modeled or revealed to students by the preservice teachers in their initial transcripts.

Application of Instructional Strategies

While I observed many more similarities than differences in preservice teachers' initial conversations, considerable variation of the level of conversation was evident in one particular aspect of the conversations. During the pre-reading stage of the instructional conversation, there were marked differences in the way preservice teachers' introduced the text. Of the 23 preservice teachers, 9 initiated the reading event by exclusively revealing the title or the title and the author.

PST 1-1: Okay, are y'all ready?

S (all): Uh-huh

PST 1-1: Okay, today we are going to read *The Three Questions*.

Text: There once was a boy named Nikolai. "If only I could find the answers to my three questions," Nikolai continued, "then I would always know what to do."

Three of the preservice teachers introduced the book by telling students what the book was going to be about. This practice stymied any attempts at authentic comprehension strategy instruction as the students were given the gist of the story before beginning the interactive read aloud.

PST 22-1: Hi. My name is PST 22-1! Today I am going to read you a book about a boy named Nikolai who wanted very badly to be a good person. He had three questions that he really wanted answered, so he went to all of his friends to find the answers, but they didn't have them. He finally goes to see the wise old turtle

who shows him that he knew the answers all along. Do you all want to hear the story?

All S: Yes!

Eleven of the preservice teachers attempted to activate students' background knowledge before reading—an important component in helping a student to build understanding of the text (Pearson, 1984, Rummelhart, 1980). Of these 11, 9 did so by asking students to tell them what they thought the book might be about by looking at the cover. What I find particularly interesting about the nine preservice teachers who used the cover of the book to activate students' background knowledge is this procedure was the *only* comprehension strategy modeled for the preservice teachers before the first interactive read-aloud.

I had inadvertently modeled activation of background knowledge in an introductory activity on the first day of class during a reading of *Why Is the Sky Blue* (Gridley, 1996), not anticipating that the preservice teachers may imitate my actions in their initial interactive read-alouds. Prior to the first conversation/transcription, the preservice teachers attended three class sessions devoid of any formal instruction in activation of background knowledge and relevant schemata. Subsequently, the preservice teachers' use of this strategy clearly supports that modeling may be enough for some preservice teachers to be able to add a strategy such as activation of background knowledge to their repertoire, but for others it takes direct and explicit teaching as used in our instructional framework.

However, even for those preservice teachers who may have duplicated this comprehension strategy as the result of seeing it modeled on the first day of class, a

nuance emerging from the data speaks to the importance of direct and explicit instruction. In the books *Hedgie's Surprise* (Brett, 2000) and *Sylvester and the Magic Pebble* (Steig, 1969), asking students to focus on the illustrations to facilitate their comprehension was an appropriate use of the comprehension strategy. In the book *The Three Questions* (Muth, 2002), focusing on the illustrations on the cover was not nearly as appropriate for facilitating comprehension as focusing on the title. Yet the nine preservice teachers who did attempt to activate prior knowledge consistently used cover illustrations as the *only* way to activate background knowledge and relevant schemata. While they were able to duplicate the strategy, the preservice teachers did not have the knowledge or skill to decide where and when the strategy should be applied. This supports that many teachers may need explicit instruction and practice in numerous situations to enable them to apply comprehension strategies in flexible and purposeful ways. A preservice teacher speaks to this phenomenon in her final paper:

> It is clear by looking at the first transcript that I really did not know what I was doing. I started the story *The Three Questions* by asking them what they thought it was going to be about. We spent a lot of time talking about the mountains and the red kite on the cover which did not help them build their understanding for when I read the story. I did not model my thinking for them at all and I had a hard time keeping their comments on topic.

Again, while initial transcripts revealed many more similarities than differences in teacher-student exchanges over text, one preservice teacher's initial transcript significantly differed from the other transcripts as seen in this introductory exchange.

PST 8-1: Today we're going to read a book called *Hedgie's Surprise*. The author of *Hedgie's Surprise* is Jan Brett. By looking at the cover, do any of you think you know what this book is about? [Activation of background knowledge and relevant schemata]

S1: I think that the two animals will be friends. [Student prediction]

PST 8-1: Well, that's a good answer. Why do you think that? [Evaluation followed by probe for clarification]

S1: Because they are smiling at each other. [Student provides clarification to support answer]

PST 8-1: Well, let's read and see. [Reveals comprehension strategy of reading on to support or refute their prediction]

This preservice teacher proceeds to read the text and then pauses to have the students confirm or refute their predictions. She often stops and asks students to summarize what they have learned thus far and probes initial student responses in meaningful ways that lead them to identification of the theme of the text. While her transcript does lapse into segments of IRE (Cazden, 1988; Mehan,1979) patterns of discourse at times, the questions she poses generally lead students to building deeper understanding of the text. However, with this one notable exception, the initial transcripts of the preservice teachers were surprisingly homogenous and generally revealed low levels of knowledge and skill in how to effectively raise the level of conversation over text in order to better facilitate student comprehension.

Summary

Many more similarities than differences were present in preservice teachers' instructional conversations with students before implementation of the instructional framework. Preservice teachers dominated the ratio of talk in the conversation and most engaged in an IRE (Cazden, 1988; Mehan, 1979) versus a conversational pattern of discourse. Preservice teachers exhibited limited responsivity to student contributions and more often evaluated rather than extended a student's response. Limited use of comprehension strategies were present and when evident was usually in the form of a teacher asking questions. Preservice teacher modeling of the use of a comprehension strategy or revealing of their thinking as they applied a strategy was rarely evinced in the analysis. Only one preservice teacher's transcript significant differed in her ability to engage students in higher levels of conversation.

Findings Related to Research Question 2

How do preservice teachers' instructional conversations with students change over time as a result of the instructional framework and explicit conversation scaffold?

Increase of Student Talk

Numerous conversational shifts occurred as the result of the instructional framework and explicit conversation scaffold. One of the most visible was the ratio of teacher to student talk. Before preservice teachers were introduced to the instructional framework and provided explicit instruction in the use of the conversation scaffold, 22 of the 23 initial transcripts featured more teacher than student talk. In the final analysis,

only eight of the final transcripts contained greater instances of teacher than student talk and in the majority of these the gap had narrowed significantly. As a result of the instructional framework and explicit conversation scaffold, preservice teachers modified their instructional conversations to increase student participation. However, while the final transcripts did reflect more student than teacher talk this was only by a narrow margin compared to the initial transcripts where teacher talk greatly outweighed student talk.

Decrease in IRE Pattern of Discourse

Another visible change was in the patterns of discourse. As mentioned in Research Question 1, the preservice teachers' initial conversations with students overwhelmingly followed an IRE pattern of discourse. As preservice teachers began using the explicit conversational scaffold, instructional conversation discourse patterns shifted to a more conversational register.

Text: I'll help you trick him into stopping.

S1: Oh, I think I know what's happening. [Student initiates conversation]

PST 21-3: What do you think might happen? [Open ended probe]

S1: He's going to curl up into a little ball and when the Tomten reaches for an egg he's going to get stuck. [Student reveals thinking]

PST 21-3: You think so? Because hedgehogs are prickly? [Teacher probes and extends conversation]

S1: Yeah, and also because it says he'll help her trick. [Student goes beyond literal response and provides text based inference]

PST 21-3: That's a good observation. [Evaluation of student response] What do you think S2? [Attempt to include other student]

S2: Yeah, he'll get stuck. But I think, later, he will still try to get the egg again. [Student responds and extends conversation]

In this example, the students are no longer dependent on the preservice teacher to initiate a question before participating in the conversation. The environment has evolved into one where they feel free to make contributions throughout the interactive read-aloud and to extend beyond the preservice teacher's expected response. In addition, the preservice teacher successfully draws other students into the conversation. Before the implementation of the instructional scaffold, preservice teachers' transcripts rarely reflected deliberate attempts to include non-participatory students in the ongoing conversation.

Increase in Teacher Uptake and Responsivity

Examples of uptake and responsivity became more frequent after preservice teachers were introduced to the instructional framework and explicit conversation scaffold. For example, in the previous text segment the student responds to a teacher probe. The preservice teacher then incorporates the student's response into her response—building and extending upon the previous utterance as she probes conversationally by asking the student if their prediction is "because hedgehogs are prickly?" The student acknowledges the teacher's inference with "Yeah" but then proceeds to go beyond the teacher's expected answer and provide documentation in the text to further support his declaration "and also because it says it will help her trick." As in this instance, the final transcripts were characterized by discourse patterns exhibiting

many more multiple turns with succeeding utterances building upon and extending previous ones as a result of increased uptake and responsivity on the part of the preservice teacher.

One of the focus areas of the class was for preservice teachers to become aware of cognitive processes that occur when they are reading a text and reveal these processes to their students. I explicitly taught the preservice teachers and repeatedly stated "in order to respond effectively to students you must first get their thinking on the table." The final transcripts provided many examples of how the modified K-W-L conversation scaffold supported preservice teachers modeling and revealing their "in the head processes" with the goal of students subsequently sharing their thinking--enabling preservice teachers to respond and guide students to actively build meaning of the text.

PST 8-2: Now, I'm wondering what this book is going to be about by looking at the cover. [Models self-monitoring] Do you have any wonders or predictions?

S1: I think it is going to be about a kid and a kite.

PST 8-2: Now, why do you think that? [Probes for text based clarification]

S1: Because there is a big red kite in the picture and also a boy.

PST 8-2: So you have learned that there will probably be a kite and a boy in the story. [Models summarization] Wow, you taught me something [Models self-monitoring]. I'm wondering if there is anything else that could give me a clue as to what the story will be about [Models self-monitoring and asking questions].

S1: I'll betcha' the boy has three questions since that is the title.

PST 8-2: Wow! [Authentic participatory remark] I wonder what they will be? [Models self-monitoring and making predictions]

Preservice teachers also began to model and probe how students could solve the text and word level problems they encounter in the interactive read-alouds. The most common strategy was the use of the text to confirm or refute the predictions that students had made:

S1: Maybe they will take different things and then finally leave the hedgehog. Because I'm pretty sure they're going to use the hedgehog.

PST 21-3: So you are still pretty sure they'll use the hedgehog?

S1 & S2: Yeah

PST 21-3: Let's read and find out.

Preservice teachers also began to grow in their ability to respond to "off target" student responses that were inconsistent with the text. In the initial transcripts preservice teachers were more likely to allow responses which were inconsistent with the text "stand" or to just "tell" students the "correct" answer as seen here.

PST 20-2: Do you wonder what the three questions are? I wonder what the three questions are? [Modeling self-monitoring]

S2: I wonder if the questions are, if he will climb the mountain. If he is a kite flyer? ["Off-target" prediction]

PST 20-2: Well, here are the three questions: What is the right time to do things. Who is the most important one, and What is the right thing to do? Those weren't any of our predictions but that's okay because we learned what the questions really are. [Preservice teacher "tells" the answer even though the answer is revealed through the text in the ensuing two pages]

As the class progresses, a shift begins to occur in many of the preservice teachers conversations. Their responses to student "off-target" contributions move from "ignoring" or "telling" to probing and providing support to guide students to text consistent responses.

PST 17-2: I wonder how much time has gone by? [Initiating question]

S1: Umm, a month. [Student response]

PST 17-2: You think a month? [Responsive probe] But what about all of these different seasons? [Supporting probe]

S1: A year! It's been a whole year. [Altered student response]

PST 17-2: Yeah, I think you might be right. [Quasi-evaluation]

Even when students were correct in their construction of meaning, the preservice teacher transcripts began to reflect the use of probing questions to nudge students to provide text based justification and support for their answers.

PST14-2: You were right; [evaluate] why were you right? [Requires student to provide text based support]

S1: Because um cause I said, the book said, he helped the panda and the turtle. And if he didn't help the turtle then he wouldn't have heard the panda cry. [Student use of text to support response]

Using the instructional framework and modified K-W-L conversation scaffold, preservice teachers began to focus their attention on how students were responding to the text and formulating their responses to student contributions—a rarity in the initial transcripts. I attribute this shift, at least in part, to the class reflection and discussion immediately following each lab situation. During the reflection and discussion,

preservice teachers (teacher and partner) were required to identify a specific moment in their teaching where student learning may have been facilitated had their uptake and responsivity been more adept and fluent. Preservice teachers briefly shared these instructional moments and their research-based suggestions for improvement. I then selected 3-4 of these instructional moments to discuss in depth with the goal of increasing preservice teachers' uptake and responsivity fluency in their subsequent teaching endeavors. As a result, many preservice teachers' transcripts reflected they were better able to respond appropriately to student contributions in the ensuing instructional conversations.

Continued Evaluation of Student Responses

Despite preservice teacher's progress in responding to their students contributions, throughout the final transcript analysis I continued to code many instances of preservice teachers evaluating the students' responses. The number of instances of evaluative responses was surprising considering the frequency with which it was addressed during class instruction and reflection. In addition to citing the supporting research on the value of conversation versus interrogation (Eeds & Wells, 1989; Langer, 1993), I paralleled how conversation about a text should resemble their conversations about a movie using the following example:

> Let's say we go and see the movie *Top Gun* together. At the end of the movie I make the comment "I think Tom Cruise and Kelly McGillis would make a fabulous couple in real life." Would you respond by saying "Good job!" or "That's a good observation, Shannon!" Of course not! When you place a value on the response you put yourself in the position of being the authority—the

controller of the conversation. Most people (including myself) would find that offensive and would be less likely to participate in the conversation if they knew that their every utterance was going to be judged. Instead you might agree and say "Yeah, I think so too" or pose an extending question such as "Why do you think they would make a good couple?" or you might even disagree with my assessment providing support for your declaration: "No, with the exception of Nicole Kidman--and we know how that turned out, he definitely prefers brunettes over blonds."

Data from this study reveal that using an explicit instructional framework and explicit conversational scaffold to prepare preservice was successful in moving preservice teachers away from initiating conversations with literal questions that resulted in limited student responses. However, the instructional framework and explicit conversation scaffold I provided was not as successful in moving preservice teachers out of the role of "the authority" where they evaluated student responses. This continued to occur despite preservice teachers expressing their desire to shift their conversations from an IRE pattern of discourse to a conversational one, as seen in this example as a preservice teacher stops mid-sentence and modifies her response to a student utterance.

PST 21-3: Does anyone have any wonders or learns from the cover? [Use of conversational scaffold]

S1: Yeah, I do. How are they gonna meet? [Student response]

PST 21-3: How are they going to meet? [Clarifies what the student says through repetition] That's a good question because….[Stops herself as she begins to

evaluate response] Why would you think it would be strange for them to meet? [Probes for student clarification of provided answer]

Preservice teachers struggled to limit their evaluations of student comments throughout the semester. While there was a definite decrease in the occurrences between the initial and final transcripts, it remained a predominant teacher response, even in the most conversational of talk registers. This finding is consistent with the research on classroom teachers' discussions (Alvermann & Hayes, 1989), which reveals even though teachers value conversation over other types of discourse, they rarely change once a pattern has been internalized by the teacher.

Increase in Use of Comprehension Strategies

Final conversations also included evidence of preservice teachers' increased teaching of comprehension strategies.

Graphic and Semantic Organizers.

The initial transcripts were void of the use of graphic and semantic organizers used to help students structure their thinking about narrative and expository text. Final transcripts documented use of these organizers (see Appendix G). However, the preservice teachers primarily used these organizers at the end of the lessons and often applied them in inappropriate ways as illustrated below:

PST 10-3: Alright. I'm going to challenge you guys because you guys seem to understand the story really well. Instead of doing a story map, let's do a pro's and con's chart. What would, be, wait . . . let's pick out one or two main lessons from this book that we learned from this book. I know that you said be careful what you wish which is a really good one, and can you think of another thing?

S1: You never appreciate something until it's gone.

PST 10-3: Ok, well, that's two really good ones.

S1: Well, they did appreciate Sylvester.

PST 10-3: And why do you say that?

S1: Because they were really sad when they left and they didn't want to yell at him anymore.

PST 10-3: That's all good thoughts. Well, how could we create a pro-and-con chart about reading this book? [Blind application of the strategy] Can you see any negatives about reading this because it is about wishing and dreaming and hoping, and he did have that magic pebble and it did do what he wanted it to? Do you see any cons or do you think this is a good book to share with other people? [Unclear how organizer will help students in structuring their thinking]

S2: A good book because it's useful.

PST 10-3: Because it teaches you something useful?

S2: Yes, and its fun!

PST 10-3: And it's a fun book!

S2: Yes, because you don't know what's really going to happen.

PST 10-3: So this is a book that could continuously make you think about what could happen?

In this particular example, the preservice teacher's choice of which graphic organizer to use centers around choosing something that is "different" rather than thoughtful selection among graphic organizers options of a Web, Story Map, Word Map, Venn Diagram, Pro-Con chart, Text Connection, or K-W-L chart. Unfortunately, the

erroneous selection of the organizers was echoed in many of the transcripts as preservice teachers pulled out organizers at the end of the lesson—using them as a "worksheet" rather than teaching a useful comprehension strategy. Intermittently, preservice teachers would use the "story structure" graphic organizer during the story, highlighting characters, setting, events, problem, solution, and eventually identifying the theme of the story in a very hierarchical manner. However, the use of the graphic organizers whether used before, during, or after the reading tended to reflect a "worksheet" type approach and not an authentic use of the organizers to assist students in organizing their thinking when a text level problem occurred.

Instruction in how a graphic or semantic organizer may help students to better understand a text when reading independently did not appear to influence preservice teachers' practice. When implementing graphic organizers to help students make text-to-self, text-to-text, and text-to-world connections, the preservice teachers would apply the organizer to elicit student responses but rarely made explicit to the student how the connection applied to the particular text.

PST14-2: Who would be the most important one you are with in the afternoon? [Text-to-Self connection prompt]

S2: My sister.

S1: Um, my friend Zachary. [Preservice teacher does not make evident the link between student responses and the connection to the text]

Although classroom instruction and readings were provided on the use of graphic organizers, this instruction did not result in their authentic use. The preservice teachers did not seem to grasp that it is not the instructional tool itself which furthers student

comprehension, but rather the application of the tool to a specific situation. Perhaps preservice teachers need to see demonstrations of how the organizers are authentically used with students before they can internalize this type of usage themselves.

Teachers Asking Questions and Students Asking Questions

Growth in the effective comprehension strategy of teachers asking questions and students asking questions is illustrated through the development of preservice teachers' abilities to engage in appropriate uptake and responsivity as addressed earlier in this chapter. However, it is important to note that the instructional framework and modified K-W-L conversation scaffold was instrumental in moving preservice teachers away from engaging in traditional inquisitions to a discourse pattern which allowed for them to work with student thinking as it was revealed to them. The explicit conversation scaffold of "What are you wondering" allowed the student to *first share* what was confusing to them about the text. This is an important shift from traditional comprehension instruction where teachers set the agenda by determining what is to be learned without first knowing what it is that students do or do not understand. The WONDER card prompted students to think about unfamiliar words or words used in a novel way, predictions or thoughts they may have about upcoming events in the text, and general questions and/or confusions students may have. Further, use of the WONDER card forced preservice teachers to curb their inclination to determine the course of the conversation—providing the necessary scaffold to get students thinking on the table.

Summarization

Increased use of the comprehension strategy of summarization can be directly linked to use of the K-W-L cards used as a conversational scaffold. In the initial

transcripts, preservice teachers used the LEARN card in very perfunctory ways as a variety of student responses were accepted and validated by the preservice teachers. In addition, preservice teachers addressed theme at the end of the story rather than throughout the interactive read-aloud. As the semester progressed, preservice teachers began to use the LEARN card throughout the story to scaffold students summarization of the main points in the story with a focus on building theme.

Increase in Comprehension Process Modeling

One of the most salient differences to emerge from the initial and final transcripts was the internalization of the modified K-W-L conversation scaffold. This internalization of the scaffold resulted in comprehension process modeling by both the teachers and students. Data from this study showed how teachers making their inner speech available to students assisted in developing students' internalized dialogue (Bakhtin, 1981). In the final transcripts, students were actively engaged with the text, as evinced through the prominence of student generated statements of "I'm wondering . . .", "I've learned . . .", and "I know . . ." during the interactive read-alouds. Even when the preservice teacher's prompt differed from what the student wished to contribute the use of the internalized scaffold is evident:

PST 20-3: Does anybody have any *wonders*?

S1: Nobody wanted the caps. That's what I *learned* [Student distinguishes between prediction/WONDER and summarization/LEARNED] What we *learned* is that those are his caps. What we *learned* is that he has red, black, yellow, and checked caps and he said he was hungry and he was worried about lunch because he doesn't have money.

The explicit conversation scaffold not only influenced the ways students responded to text, but also influenced the "in the head processes" of the preservice teachers. They often commented in class how they were applying the conversational scaffold to the texts they were reading in college classes and when reading for pleasure. As one of my students writes:

> I know you talked about reading *The DaVinci Code*, but have you read *Angels and Demons*? That is the first one he wrote and it is amazing as well. And now thanks to your class as I was reading it on a cruise to Mexico I kept asking myself what I was wondering and thinking about how I was visualizing the story to help figure out clues. Not sure if I was annoyed by it or if I was proud that now I too am a skillful reader. (personal communication, December 2005)

Summary

Explicitly preparing preservice teachers by implementing an instructional framework and explicit conversation scaffold resulted in many changes in the preservice teacher's conversations with students over the course of the semester. The proportion of student to teacher talk increased, but teacher talk continued to exhibit a strong presence throughout the final transcripts. In addition, the tone of the conversations began to shift to a conversational register, although the discourse pattern of IRE was still present to some degree in each of the transcripts. Evidence of preservice teachers' responsivity as they began to focus on student contributions and formulate responses which extended student thinking also began to emerge as a result of the instructional framework. The preservice teachers began to incorporate research based comprehension strategies to address text level problems through pre-planned modeling and those authentically

encountered during the interactive read-alouds. Nevertheless, strategies were applied in more and less effective ways dependent on the specific reading situation, resulting in higher and lower levels of conversation.

Findings Related to Research Questions 3 and 4

What characteristics defined higher level instructional conversations?

What characteristics defined lower level instructional conversations?

Even though the initial and final instructional conversations of the preservice teachers illustrated growth in the ways described above, I observed marked differences in quality within the final transcripts. I identified three elements that differentiated higher and lower level conversations: uptake and responsivity, text coherence, and situation appropriate comprehension strategy use. Therefore, rather than presenting components of higher and lower level conversations as two separate entities it is more illustrative to present them in a comparative nature.

Uptake and Responsivity

Preservice teacher uptake and responsivity consistently emerged as differentiating between higher and lower level conversations. The data clearly show substantive differences in the ways that preservice teachers work with thinking that their students reveal. It is the notion of scaffolding—the thoughtful ways that a more sophisticated other models and provides *appropriate* guidance and support for the learner (Bruner, 1975) that appears to result in higher levels of conversation.

Ratio of Teacher to Student Talk

An insight emerging from this study was that while the ratio of preservice teacher to student talk was a defining indicator of initial and final conversations, preservice teachers' uptake and responsivity differentiated whether more student talk contributed to higher or lower level conversation. As shown in the following example during an interactive read-aloud of *The Three Questions*, the ratio of student to teacher talk is more characteristic of a final rather than an initial instructional conversation as student talk outweighs teacher talk in the exchange. However, the transcript illustrates that the mere element of more student talk does not guarantee higher levels of conversation.

S1: I wonder if he is going to make new friends along the way. [Student generates prediction]

S2: When I moved to this school I didn't have any friends. [Student text-to-self connection]

S1: Yeah, but you have lots of friends now.

S2: But most of my friends are from gymnastics.

PST 23-2: You do gymnastics? [Preservice teacher probes in a way that moves students away from actively building meaning of the present text]

S1: Yeah, I like to do the balance beam that is my favorite. It is really hard, but if you fall off there are a lot of mats and stuff and you don't get hurt.

S2: I play baseball, but we aren't playing right now 'cause it is over. I'll play next year though.

S1: I do gymnastics all year. That's the good thing about it and then you can become a cheerleader.

Eight turns are present in the excerpt, with preservice teacher talk representing only one of the turns. However, only the first three of the eight turns could be coded as leading students to deeper levels of understanding through text-to-self connections. At the point where S2 comments “But most of my friends are from gymnastics” a shift occurs that moves students away from building meaning for the current text. The preservice teacher’s response of “You do gymnastics?” continues and extends this movement away from the text rather than providing scaffolded instruction that will direct learners back into the text. The goal of facilitating students’ understanding of the current text and developing skills and strategies to assist them in their future efforts to comprehend while reading independently has been derailed due to “off target” uptake on the part of the preservice teacher. This example illustrates that while research encourages more student than teacher talk, the quality of teacher responses to student contributions rather than mere increases of student talk determines whether a conversation is of a higher or lower level.

Other transcript excerpts revealed that while the majority of higher level conversations occurred when student talk outweighed teacher talk, in some instances a teacher monologue (in the Vygotskian sense) resulting in more teacher than student talk furthered rather than hindered student comprehension. This primarily occurred when students were clearly “off target” and the preservice teacher made the decision to “tell” rather than to continue a line of questioning or probing that was resulting in students building incorrect interpretations of the text.

In the other instances, preservice teachers resort to “telling” in order to facilitate students’ understanding of the text before continuing the interactive read-aloud. In this

example, at a designated stopping point the students were not able to summarize the events of the story which are critical for building understanding. The preservice teacher "tells" students so they are able to accurately construct meaning as she continues her reading:

PST 10-2: OK, basically what has happened is that each time the hedgehog and Henny the hen, have tricked Tomten and he's getting pretty frustrated.

S1: How did they trick him?

PST 10-2: Can you help S1? [Said to group]

[No response from students]

PST 10-2: Remember they put an acorn under Henny. What else?

[No response from students]

PST 10-2: Remember they first tried to trick Tomten with the acorn, then a potato, a strawberry, and a mushroom.

S2: Oh yeah!

PST 10-2: And Tomten is getting really upset about this and he just told Henny that [Reads from text] "Tomorrow I want an egg for breakfast and nothing else. If I don't find one, I'll eat you instead." [Pauses for student contribution but none is forthcoming] So, the problem is that Henny wants to have a baby which means that Tomten can't eat her eggs. Henny and Hedgie have been tricking Tomten from getting her eggs, but now if they trick him he is going to eat Henny. What do you think is going to happen? [Re-engages students in the story after clarification]

When students were “off target” in their responses or not actively building meaning of the story, talk ratios that reflected more teacher talk as seen in the previous examples oftentimes were more effective than high levels of student talk that did not develop coherence of the text. Analysis of the transcripts supports, while ratio of talk was an indicator of whether a conversation was higher or lower level, uptake and responsivity played a more significant role in whether the conversation was of higher or lower level.

Patterns of Discourse

Since uptake and responsivity significantly impacted whether instructional conversations were at a higher or lower level, then it is not surprising that transcript analysis reflected lower levels of conversation when preservice teachers’ engaged in an Initiate-Respond-Evaluate participation structure. This traditional model encompasses teachers asking all the questions, students responding, and the teacher evaluating the provided response (Cazden,1988; Mehan, 1979) as seen in this first transcript for PST 20:

PST 20-1: What is Sylvester’s hobby? [Initiating question]

S1: Collecting pebbles. [Student response. PST does not provide evaluation but introduces another initiating question]

PST 20-1: Do you know what ceased means? [Initiating Question]

S1: No. [Student response]

PST 20-1: It means stop. [Provides answer]

PST 20-1: What made it start raining? [Initiating question]

S1: When he held the red pebble. [Student response]

PST 20-1: What is he saying when he says anybody can have anything they want? [Initiating question]

S1: Anybody can have anything because they can wish for what they want. [Student response]

PST 20-1: Do you think the lion is going to eat him? [Initiating question]

S1: No. [Student response]

PST 20-1: Do you know what a gnat is? [Initiating question]

S1: No [Student response]

In this episode, the preservice teacher is interrogating the student using only literal questions. A single instance of preservice teacher uptake is evident when asking if the student knows "what ceased means?" Responding to the student response of "No" does not result in effective uptake and responsivity as the preservice teacher chooses to provide the answer when clues in the text are present that would enable the student to decipher the word's meaning. Just as Durkin's (1978/1979) findings reflect, the preservice teacher is not teaching the student how to comprehend the text, but rather is evaluating the student's comprehension. This type of participation structure resulted in lower levels of conversation throughout the analysis. When engaged in the IRE pattern of discourse, preservice teachers did not attempt to get "students thinking on the table" in order to be able to respond appropriately to contributions and provide supports that students could employ when reading a text independently

While IRE is the primary vehicle for preservice teachers limiting student participation in instructional conversations, other ways of limiting student responses

were discernable as the analysis proceeded. One of the ways preservice teachers limited students was by providing the choice of a correct answer from limited alternatives.

Text: Meanwhile, back at home, Mr. and Mrs. Duncan paced the floor, frantic with worry. Sylvester had never come home later than dinner time. Where could he be? They stayed up all night wondering what had happened, expecting that Sylvester would surely turn up by morning. But he didn't, of course.

PST14-1: Do you think your parents would have stayed up all night or do you think they would have gone out searching for you?

S1: Stayed up all night.

S2: Searching for me.

Another variation of the way that preservice teachers limited the student conversation and thinking was by phrasing the answer as a question, as seen in the following example:

PST 2-3: So do you think that the moral of the story is to be happy with what you have and don't wish for other things?

S1& S2: Yes.

Preservice teachers asking questions that have a specified "known answer" or limiting students to what Barnes (1986) call "pseudo-open" questions (questions that are open in form but closed in function) resulted in diminished levels of conversation. Discourse which buries students' thinking and participation often results in students who become disengaged and passive. Research has shown when the teacher assumes the authority role in a conversation, many times nonparticipation and passivity become a preferred alternative for the students (Doise & Mugny, 1984).

Further analysis of the transcripts show that multiple, interactive turns did not always culminate in higher instances of conversation. In fact, this study revealed in some transcript excerpts, fewer multiple interactive turns often result in higher levels of comprehension, as evinced in the example below:

PST 21-3: So you were right, she is jealous of Goosey's babies. [Preservice teacher builds upon previous utterance by confirming and restating student prediction]

S1: She could lay the eggs and then put hay over them. [Student extends response by making an additional prediction]

PST 21-3: You mean try to hide the eggs? [Builds upon previous utterance by requesting conversational clarification]

S1: Yeah. [Verifies preservice teacher's interpretation]

PST 21-3: I guess that is one way she could do it. [Provides the initiating prompt for student to extend the conversation]

S1: Or maybe she could ask goosy-goosy to take the eggs and take care of them for her. [Student builds upon previous utterance and extends by making further predictions]

PST 21-3 Okay, that's a good thought. [Evaluates] Let's see what she decides to do. [Returns to the text to confirm or refute the prediction]

This excerpt has fewer multiple, interactive, and connected turns than the previous examples but the way in which understandings are constructed through succeeding utterances results in higher levels of conversation. These instances continue to support that while the presence of a conversational element serves as an indicator to distinguish between lower and higher levels of conversation, the way in which a

preservice teacher engages in effective uptake and responsivity serves as a more accurate measure of whether the conversation will be more or less effective in facilitating student comprehension of the text.

Another finding related to connected discourse was whether or not the preservice teacher chose to "tell" or "probe" led to higher or lower levels of conversation. Despite many instances where preservice teachers' "telling" often stalled student learning, there were instances where their "telling" students facilitated the conversation.

S1: What does scold mean?

PST 17-2: Let me read the sentence again. "I will never scold Sylvester again as long as I live."

S1: I don't know.

PST 17-2: Well, from the sentence. Do you think it's a good thing or a bad thing?

S1: Bad maybe because she said she wouldn't do it again. But what does it mean?

PST 17-2: Scolding is kind of like yelling at you when you get into trouble.

S1: Man, sounds like my mom.

In this example, the preservice teacher's initial response gives the student an opportunity to further their understanding with minimal teacher support, evidenced by the student rereading the sentence. When the student is still unable to construct meaning, the teacher provides additional support by asking "Do you think it's a good thing or a bad thing?" The student then uses context clues to determine that the word has a negative connotation, but still desires a more precise definition. Further probing on the part of the preservice teacher would be miseducative at this point since the student has already used effective strategies to attempt to solve the word-level problem. The

preservice teacher makes an appropriate situational based assessment and decides to provide the definition at this juncture in the lesson, resulting in student understanding and making of a text-to-self connection “Man, sounds like my mom.”

Evaluation of Student Responses

One of the most prevalent and resilient features that continued to be pervasive in the final instructional conversations despite the implementation of the instructional framework and explicit conversation scaffold was control or authority exhibited by the preservice teachers. Preservice teachers’ evaluations of student comments continued to prevail throughout the third transcript of conversations. However, teacher authority or control did not always result in lower levels of conversation. In fact, many times the opposite was true, as preservice teachers used their position to facilitate comprehension of the text. For example, in the following episode the preservice teacher uses her position to put students back into the text by refocusing them on the theme of the story:

PST 8-2: I am wondering something. [Models instructional scaffold] The boy has not asked the Leo the questions yet. [Models self-monitoring] I am wondering if he’s going to ask Leo questions or if he forgot. [Reveals inner conversation with text]

S1: I think that he couldn’t ask the turtle the questions because he was busy with the panda. [Student reveals thinking] The boy would not be strong enough to carry the turtle up a mountain in real life. [Student connection that leads student away from the text]

PST 8-2: That’s probably true, and we have to remember that this is just a book. [Validates student thinking] But, back to the story, you think he will ask Leo the

questions? Is that what you were saying? [Reorients student to actively building meaning of the text]

S1:Yeah. When he's done with the turtle. The turtle's going to tell him that's not all he can do and that he can save people and with God's help he can be strong.

S2: You go to church way more than I do! ["Off target" student response]

PST 8-2: Okay, let's remember to keep our focus y'all. [Uses authority to redirect conversation] So, S1, you think that the turtle is going to say it's like helping other people, maybe? [Picks up previous conversation thread] Anything else? [Probes]

S1: Yeah, helping people when they are hurt. Let's just read it!

PST 8-2: I think we all have some good ideas. S1, I think you have the right idea. [Evaluates] I want to keep reading to see what happens!

In this excerpt the teacher uses her authority to redirect the conversation on two separate occasions. As a result, the students continue to focus on the big ideas of the story rather than embarking on tangents about church and whether or not pandas are too heavy to carry. In this particular situation, the teacher's decision to intervene and control the conversation leads to higher levels of conversation and student comprehension.

A conversational talk register reflected higher levels of discourse in contrast to IRE. Research shows students grow cognitively, socially, and affectively when IRE participation structures are not present and opportunities for discussion are provided (Almasi et al., 2004). In addition, discussion and response helps students in their development of important metacognitive skills to construct meaningful representations of text (Palincsar & Brown, 1994). Use of the conversational scaffold encouraged

conversation and provided opportunities to get "the student's thinking on the table," enabling the preservice teachers to work with current levels of understanding. However, it was how preservice teachers responded to students—their ability to effectively engage in uptake and provide *situation appropriate* responses—which resulted in the higher levels of conversation, as this preservice teacher speaks to in her final paper:

> After reading for a while, I would continue to ask the students what they think will happen, allowing them to make predictions. If they did not have any, I would model my prediction and we would continue reading. We came to a point in the story when I asked the students, "So he did get it this time right?" (getting the eggs). A student responded with "How about she just stops laying eggs?" Before I would have told them why that was a wrong answer but now I was able to comment by showing the student that although it was a good thought, we must remember what we read earlier. My comment was: "You think that she is just going to stop laying eggs completely? But do you remember when she was talking to Goosy?" One of the students said "Oh yeah! She wanted to have babies." Then all the students began to respond with various answers such as "Well, maybe she could hide them (eggs)." Doing so allowed us to stop and reflect back on what we had already learned, allowing us to clear up a possible confusion, and create new predictions. During the final instructional conversation, I was able to have better responses and redirect students in ways that I had never realized before.

Text Coherence

The most salient difference in determining whether transcripts resulted in higher or lower levels of conversation and student understanding was the ability of preservice teachers to respond in ways that would result in student comprehension of the text, as we saw in the previous excerpt. In a separate study of preservice teachers' written think-alouds, my colleagues and I have begun to analyze data using descriptors which we modified from Almasi, O'Flahavan, and Arya's (2001) work on peer discussions. The modified categories include whether thoughts about text reflect making meaning at a (a) local level, responding to information found "right there" on the page; (b) global level, responding to information across multiple pages; or (c) themal level, responding to text in a way that links to the theme of the story. Read-alouds with more occurrences of themal coherence appeared to result in higher levels of comprehension (Villaume et al., 2005).

Transcripts of preservice teachers' instructional conversations in this study parallel the findings of Villaume et al. (2005). Instructional conversations marked by teacher uptake and responsivity with themal coherence resulted in the highest levels of conversation. Again, it was the responsivity on the part of the preservice teacher that kept the themal component at the forefront of the instructional conversation. Preservice teachers who were unable to keep the themal focus at the forefront of their conversations were often faced with students who had little understanding of the big ideas in the story. When establishing plausible themes at the end of the story (a required component in their lesson plans), the preservice teachers often ignored erroneous responses and left

students with interpretations of the story that were inconsistent with the text as seen in this episode after a reading of *The Three Questions*:

PST 2-1: So what were the three questions we talked about?

S1: I know one.

S2: One was he helped the turtle dig up the garden and the other he helped the big panda bear and the third one he helped… ["Off target" student response]

S1: He helped the little panda bear. ["Off target" student response]

S2: Yeah.

PST 2-1: OK. Let's look at some vocabulary words. [Preservice teacher allows an incorrect interpretation to be internalized by the students]

In this example, the preservice teacher does not respond to the "off target" student contributions, thereby leaving students with unreasonable interpretations of the text. Her lack of uptake and responsivity not only hinders students' development of theme, but also leaves the students with the impression that the three questions were events in the story.

One of the most important findings of this study highlighted the way the highest levels of conversation stemmed from those conversations that had more student than teacher talk, combined with preservice teacher uptake and responsivity that led students toward the theme of the story rather than away from it. It may be that the more students' thinking was revealed to *skillful* preservice teachers, the more they had to work with to determine how best to raise the level of conversation for that particular situation:

PST 8-2: So, what have you learned? [Use of the conversational scaffold]

S2: I think the questions have already been answered. [Themal connection] What was the third question again? [Students asking questions]

PST 8-2: I was just wondering the same thing. [Conversational discourse] What can we do to figure it out? [Teacher posing question]

S1: Go back some pages. [Student identifies effective strategy to use]

PST 8-2: OK. Let's look back and find out…Okay, the three questions are (refers students to the page)…

S1 & S2: "When is the best time to do things? Who is the most important one? What is the right thing to do?" [Students supply answer to their posed question. Leads to building of theme]

S1: He has done the right thing by helping the panda and the turtle [Student contribution leads to themal coherence]

PST 8-2: So, you think, like you said earlier, that the right thing to do is to help people?

S1 & S2: Uh-huh.

PST 8-2: Let's read to find out if our predictions are right.

In another example, a preservice teacher is attempting to establish plausible themes with her students, but cannot respond to the particular situation as cleanly as we see in the previous example:

PST 21-2: What do you think the theme of the book is? [Initiating question]

S1: Um, the theme is that he um… [Student confusion]

S2: I don't know. [Student reveals gaps in understanding]

PST 21-2: Well what did you learn from it? [Preservice teacher rephrases question]

S3: Never to wish to be a rock. [Student reveals thinking]

PST 21-2: (laughing) Well, that's true. [Response does not assist student in building understanding of story] Go ahead S1. [Evaluates]

S1: Um, think before you say something. [Student reveals thinking]

PST 21-2: That could be one, think before you speak. [Evaluates and repeats student response]

S1: Because if he'd thought before he said that he might not have been a rock. [Student provides text support for thinking]

PST 21-2: What about the fact that in the end they didn't wish for anything? [PST ignores student contribution. purports own interpretation of text]

S1: Yeah, the problem was he wished when he wasn't supposed to and at the end he didn't need to. [Student touches on theme. Lack of PST uptake and responsivity to deepen student understanding]

PST 21-2: Because they said they had everything they wanted? [Provides response in the form of a question]

S1: I think the theme is really sort of to think before you speak. [Student returns to original statement of theme]

PST 21-2: You think so? [Probe]

S1: Yeah, because if you say something bad, you might lose a friend or something. [Student provides support for thinking]

One of the students (S1) in this excerpt does establish a reasonable interpretation of theme but it is not acknowledged or explored by the preservice teacher. The instructional focus for the preservice teacher is to "teach" students her interpretation of

the theme of the book. This instance highlights the importance of preservice teacher's understanding how students are transacting with a particular text in order to respond effectively. Obviously from the student's standpoint the theme of the story is to "think before you speak." The preservice teacher in this episode is limited in her effectiveness. She neither supports nor builds upon the student's reasonable interpretation of the story nor does she introduce an alternative theme—the apparent objective for the lesson.

A conversational element identified as an indicator of effective instructional conversations is the presence of connected discourse. While connected discourse is closely tied to teacher-student ratio of talk and possesses a conversational register it differs in one crucial aspect. Connected discourse is discourse "characterized by multiple, interactive, and connected turns with *succeeding utterances building and extending upon previous ones*" (italics added) (Goldenberg, 1991). Some transcripts revealed higher ratios of student to teacher talk and a pattern of discourse shifting back and forth between teacher and students without resulting in connected discourse. Transcript segments were coded as including multiple, interactive, and connected turns but not as connected discourse when this occurred. However, even in those transcripts where utterances built and extended upon previous utterances, students' comprehension of the text was not always being facilitated. As seen in the example below, the preservice teacher engages in turns which are multiple, interactive, and connected. In addition, these utterances build and extend upon previous ones. However, these utterances also lead students away from negotiating the meaning of the text rather than building understanding:

PST14-1: He was gone for a long time. Remember we changed seasons four times while Sylvester was a rock. That is a long time. I wonder if he was cold during the winter. Remember he had snow on top of him? Do you think you could live by yourself for a whole year? [Text to Self connection]

S1: No [Student response]

PST14-1: I don't think I could either. I would miss my friends and my family. [Extends]

S1: I would too.

PST14-1: Who would you miss the most? [Extends]

S1: My mom and dad and my brother.

PST14-1: You have a brother? [Builds upon previous utterance]

S1: Brothers.

PST14-1: Brothers! [Builds on previous utterance]

S1: I have three. [Builds on previous utterance]

PST14-1: You have three brothers? How old are they? [Extends]

S1: One's twenty-seven, and the other is almost fifteen and I also have a twin. [Extends]

PST14-1: You have a twin brother! [Builds upon previous utterance]

S1: Uh huh he is in Mrs. King's class. [Extends]

PST14-1: He is? Wow. What is his name? [Builds upon previous utterance]

S1: Jeremy

PST14-1: Jeremy.

PST14-1: Anna do you know how old your brothers and sisters are? [Extends and includes another student in conversation]

S2: One is fourteen, and the other one is fourteen, and the other one is thirty-one, and the other one is four, and the other one is one. [Builds and extends upon previous utterance]

PST14-1: One? Wow that is a baby.

S2: And I am nine. [Extends]

PST14-1: You are nine? Wow. all spread out. [Builds upon previous utterance]

The preservice teacher starts out by using an effective comprehension strategy (activates relevant schemata through student text-to-self connection) asking the students if they thought they could live for a whole year on their own like Sylvester did. However, when S1 responds "No" her ensuing response of "Who would you miss the most" is the catalyst for pulling students away from making meaning of the text at hand despite the evidence of building and extending upon previous utterances. This is a nuance not captured in previous research focused on identifying, categorizing, and counting teacher and student utterances. While few would argue that connected discourse is a necessary component of an effective conversation, while necessary it is not sufficient as this example clearly illustrates. Again, preservice teacher uptake, responsivity, and focus on coherence of text are better indicators in determining whether a conversation was coded as either higher or lower level.

Comprehension Strategy Instruction

Another indicator that differentiated between higher and lower levels of conversation was the ability of preservice teachers to apply comprehension strategy

instruction to a particular reading situation. Occurrences of preservice teachers directly and explicitly teaching a comprehension strategy "outside-in approach" or making evident students' use of strategies "inside-out approach" as a particular reading situation warranted hallmarks higher levels of conversation (Villaume & Brabham, 2002). The uptake and responsivity on the part of the preservice teacher again determined the effectiveness of teaching a comprehension strategy. To illustrate, in this episode a student makes an inference while reading *Sylvester and the Magic Pebble* (Steig, 1969). During the exchange the preservice teacher misses an opportunity to use an inside out approach and make visible to the student who made the inference and the other students in the group, the use of a powerful comprehension skill—self monitoring.

PST 6-1: To his great surprise the rain stopped.

S1: That's the magic pebble! [Student inference connecting to the title of the book]

PST 6-1: You think so? [Teacher response]

S1: Yeah! [Student confirmation]

PST 6-1: Why do you think it's the magic pebble? [Probe]

S1: Because it's round and flaming red and when he says something suddenly it happens. [Student provides support in the text]

PST 6-1: [No response. Preservice teacher continues reading.] It didn't stop gradually as rains usually do. It CEASED. The drops vanished on the way down, the clouds disappeared, everything was dry, and the sun was shining as if it had never rained. Do you know what ceased means? [Preservice teacher shifts to talk about the word "ceased" and misses a critical opportunity for comprehension instruction]

In this episode, the preservice teacher does not make evident to the student their ability to make a critical inference using varied pieces of text (global coherence). In addition, and possibly more importantly, the opportunity is lost to make visible to the other students in the group. Another example of this occurring is when a student attempts to use background knowledge to make a text-to-text connection by placing the upcoming text within a familiar framework:

PST 21-1: So neither of you has read it? Okay, look at the cover, what do you think might happen in this book?

S1: Um, a monkey trying to get a kite

PST 21-1: A monkey trying to get a kite.

S2: I um read a book and there was this girl who goes on a little quest and, to be Emperor of China and she has to kill a dragon before…

PST 21-1: Okay, maybe this will be like that, we'll have to see.

S2: But in the other story there are three things too, three tasks that she has to complete before she can become emperor.

PST 21-1: Ah, that sounds like a good story. Now let's see what this little boy's three questions are. [Student is using text to text connection to try and make sense of the text and teacher truncates the conversation]

The preservice teacher's imperceptive response to the student's attempts to connect what she knows about a previous text and application to the current text highlights the importance of being able to respond effectively to student contributions. Schema theory suggests that readers better understand what they read as it relates to what they know (Anderson & Pearson, 1984). The preservice teacher negates this

student's use of specific knowledge to understand the text (Sweet, 1993). Coding of preservice teachers' teaching of comprehension strategies revealed that preservice teachers were much more adept at teaching a comprehension strategy from the outside-in rather than from the inside-out. In other words, the occurrences of preservice teachers teaching a comprehension strategy overtly greatly outweighed their ability to recognize when a student demonstrated the skillful use of a comprehension strategy. Ostensibly, higher levels of conversation were evident when preservice teachers' uptake demonstrated examples of directly teaching a comprehension strategy and making spontaneous and flexible use of a strategy self-evident to the student. However, this level of experise was not common. While preservice teachers were well versed in their knowledge of comprehension strategies, they lacked versatility in applying them effectively in authentic situations.

Summary

While the implementation of an instructional framework and explicit conversation scaffold resulted in changes to preservice teachers' conversations, the instructional framework and explicit conversational scaffold did not eliminate observed differences in preservice teachers' conversations. Three characteristics emerged from the data analysis that defined higher and lower levels of instructional conversations. First, transcripts that reflected preservice teachers engaged in effective uptake and responsivity resulted in higher levels of conversation and student learning. In contrast, preservice teachers "off-target" responses resulted in lower levels of conversation and learning. Second, preservice teachers who maintained themal coherence throughout their

instructional conversations defined higher level conversations opposed to those who allowed for student interpretations that were not aligned with the text. In addition, preservice teachers who were able to model, teach, and reveal the use of *situation appropriate* comprehension strategies within the authentic reading event facilitated instructional conversations that were also of a higher level than those teachers who taught comprehension strategies in perfunctory ways.

CHAPTER V.

DISCUSSION

Introduction

This chapter presents a discussion of the findings from this study and is organized into six sections: (a) summary of the present study, (b) connections between the present study and prior research, (c) educational implications of the study, (d) limitations of the present study, (e) directions for future research, and (f) final thoughts and connections.

Summary of the Study

This grounded theory study explored the instructional conversations of preservice teachers as they engaged in interactive read-alouds with elementary school students. It was my intent that the investigation of these conversations would provide insight and theory as to why differences in levels of conversations exist despite when an instructional framework and explicit conversational scaffold is used. As a teacher/researcher, my secondary objective was to use the emerging insights to inform my teaching in how to best promote preservice teachers' development in facilitating higher level instructional conversations. Initial data from this study was surprising, showing that preservice teachers actually varied very little in their initial instructional

conversations before implementation of the instructional framework and explicit conversational scaffold. Findings also suggest that the use of an explicit conversational scaffold can have a positive effect on a preservice teacher's level of conversation with elementary school students during an interactive read-aloud. Further, findings indicated preservice teachers' abilities to engage in effective uptake and responsivity contributed to differences in preservice teachers' conversations. Those preservice teachers who were able to pinpoint a students' contribution to the conversation and provide an appropriate and timely response to that contribution resulted in higher levels of conversation. In addition, this study revealed preservice teachers whose conversations maintained a "themal coherence" resulted in higher levels of conversation across all indicators identified as contributing to effective conversations. Modeling and appropriate teaching of research-based comprehension strategies were also found to lead to higher levels of instructional conversation. This study also provided preliminary support for the use of transcript analysis to facilitate preservice teachers' conversations when engaged in interactive read-alouds with elementary school students.

Connections Between Present Study and Prior Research

The findings from this grounded theory study of preservice teachers' instructional conversations with their elementary school students both confirm and extend current research on skillful readers, effective comprehension instruction, instructional conversations, and effective teacher research.

The ultimate purpose of reading and comprehension instruction is to teach students how to make meaning when reading a text independently (Pearson, Roehler,

Dole, & Duffy, 1990; Rosenblatt, 1978). Results from this study support research indicating that when readers engage with text they construct their own understandings and interpretations (Pressley, EL-Dinary, et al. 1992). Many instances were coded in the data analysis that revealed students creating different understandings and interpretations of the same text. These understandings and interpretations often differed from those of other students in the group, as well as from the preservice teacher who conducted the interactive read aloud. More specifically, the data from this study highlights how some preservice teachers were able to discern between student understandings and interpretations that were more reasonable and consistent with the text than others. In addition, the data revealed that instances of conversations where preservice teachers were able to respond to students in ways which helped them to identify and make reasonable interpretations of text when their thinking had gone astray exhibited higher levels of conversation. This finding underscores previous research findings of the importance of scaffolded instruction and that the interaction occurring between the reader, the context and the text is necessary for comprehension to successfully occur (RRSG, 2002).

Additional findings from this study strongly support that reading is a sociocultural process. The participants, time, place, and expectations present in the reading situation will affect the reader and the meaning they construct from the text (Gee, 1996). The current study further supports that it is through social interaction that readers at all stages develop their abilities to think critically and deeply about a text (Cambourne, 2002).

However, little research has documented how social interaction can also hinder students' learning. An insight emerging from this study illustrates how an unskilled preservice teacher can disrupt a student's efforts to understand a text. While Vygotsky (1978) heralds the importance of social interactions in any learning venture, the key element lies in the more knowledgeable "other" that guides the learning situation. Data from this study indicate that discussion for discussion's sake may result in detrimental effects to students' understanding. Wood, Bruner, and Ross (1976) extend upon Vygotskian theory using the term *scaffolding* referring to a situation where a more knowledgeable other models, guides, and provides support in the learning process. In this study, the instructional conversation scaffolds provided preservice teachers and their students with a framework where such learning was supported. Coding of chunks of text where preservice teachers provided appropriate and skillful scaffolding were numerous and these instances tended to reflect higher levels of conversation. However, despite the use of the same explicit conversational scaffold, not all preservice teachers facilitated higher levels of conversation and comprehension during the interactive read-alouds.

While preservice teachers were able to initiate conversations and even provide general probes throughout the semester as a result of the instructional framework and explicit conversational scaffold, many transcript excepts showed preservice teachers struggling in knowing how to respond once students revealed their thinking. Repeatedly, they responded in ways that did not assist students in moving forward in the comprehension process.

The findings from this study further support the observation that knowledge of the reading process and metacognitive awareness of what one does as a skillful reader is

built through discussion (Eeds & Wells, 1989; Langer, 1993). This study also supports the use of Goldenberg's (1993) elements of an instructional conversation, which encourages modeling and scaffolding support (Wood, Bruner, & Ross, 1976) to enable students to develop a deeper understanding of the reading process through social interaction (Vygotsky, 1978). The study clearly showed these elements to be present in higher level conversations.

Results from this study supported effective conversational elements as identified by Goldenberg (1991) including: (a) teachers asking fewer known-answer questions, (b) responsiveness to student contributions, (c) connected discourse with multiple interactive, connected turns with succeeding utterances building upon and extending previous ones; (d) an atmosphere where the teachers positioned themselves more as collaborators than evaluators and allow students to negotiate and construct meaning of the text; and (e) instructional conversation resembling natural conversation with participation being student rather than teacher centered.

Findings further support Goldenberg's (1991) instructional elements that contribute to more effective conversation. These instructional elements include: (a) a thematic focus for the discussion; (b) activation of background knowledge and relevant schemata before and during the reading event; (c) direct teaching when necessary; (d) extending student contribution by using elicitation techniques and invitations to expand, and (e) promoting student use of text to support a contribution or position.

Effective implementation of instructional and conversational elements required preservice teachers to have a depth of understanding of research based comprehension strategies such as (a) comprehension monitoring, (b) collaborative learning, (c) use of

graphic and semantic organizers, (d) teachers asking questions, (e) students asking questions, (f) summarization, and (g) multiple strategy emphasis (Pressley, Johnson, et al., 1989; Pressley & McCormick, 1995)-- all of which were provided within the instructional framework used in this study.

In addition, research has documented the need for teaching comprehension strategies in combination (Palincsar & Brown, 1984) and embedding such instruction within the actual reading event (Alexander, 1996; Garner, 1990; Mayer, 1996; & Pressley, 2000). Research has also documented the instructional value of conversation rather than interrogation (Almasi & Gambrell, 1994; NICHHD, 2000). While these elements were present in the higher level conversations, they were also evinced in lower level conversations. This finding suggests that another element may be instrumental in explaining differences that occurred in the instructional conversations.

The results of this study suggest that while knowledge and skill in comprehension strategy instruction and instructional conversations are necessary components for effective instructional conversations, they are by no means sufficient by themselves. Preservice teachers who did not recognize when and where to explicitly teach or reveal a comprehension strategy were rarely effective in comprehension strategy instruction. Some coding of transcript excerpts suggested that inappropriate use of a comprehension strategy could hinder students' understanding of the text. For example, when the preservice teacher pulled out a Pro/Con Chart graphic organizer and applied it in an erroneous way, she confused students rather than assisted in their comprehension efforts. This phenomenon is highlighted by Dewey who, when speaking of the

"intellectual equipment" of the teacher, defines successful teaching as "a question not only of what is known, but of how it is known," saying:

> Just in the degree in which the teacher's understanding of the material of the lessons is vital, adequate and comprehensive, will that material come to the child in the same form; in the degree in which the teacher's understanding is mechanical, superficial, and restricted, child's appreciation will be correspondingly limited and perverted. (1902, pp. 397-398)

The current body of comprehension instruction research identifies elements that lead to more and less effective instructional conversations. Effective teacher research also has addressed the need for teachers to be responsive to student contributions. Duffy and Roehler (1987) refer to this responsivity as "interactive responsiveness" explaining that "teachers' sensitivity to students restructuring and their responsiveness to these understandings . . . determine what children ultimately come to understand" (p. 417).

What is unique to this study is that while the literature cites teachers need to be responsive to student contributions, the quality of the teacher response and appropriateness of the teacher response is rarely addressed in the literature. Most of the research on teacher response has focused on categorizing and quantifying the presence of these responses in student/teacher conversations.

Kucan (personal communication, December 19, 2005) has engaged in work categorizing the ways that teachers question and respond to students and has identified four ways in which they respond—collecting (teacher repeats or rephrases question to the same or different student), probing (teacher requests additional information such as reason or evidence for response), connecting (teacher elicits evaluation of response by

asking students if they agree or disagree with a student comment or if they want to comment on what another student said), or redirecting (student poses question to the teacher but the teacher redirects it to the group). This study supports Kucan's (2004) findings that the ways in which teachers respond to students can be altered through explicit instruction and reflection of practice. Further, this study supports the finding that the use of transcript analysis is an effective strategy for helping change the ways that teachers respond to students during comprehension instruction. However, Kucan also has found that responsiveness is at the heart of instructional effectiveness. In a personal communication (December 19, 2005), she states "I have found exactly what you have described in my own work: teachers shift in their question-posing but the responding is the tough part!"

Identifying and quantifying teacher responses is a vital first step in determining how to best educate teachers in how to provide effective responses to student contributions, but we may be missing what is truly effective or less effective in instructional conversations. To illustrate, examine two preservice teachers' approaches to a reading event with the objective of establishing a thematic focus for the instructional conversation. Both teachers select an appropriate theme or idea they believe students should take away from the story and provide a general plan for how the theme will unfold. When the students begin to discuss possible themes, the preservice teachers may quantitatively respond at the same level, using the same number of instances of "collecting, probing, connecting, and redirecting responses" (Kucan, personal communication, December 19, 2005). However, the qualitative differences in their responses may vary significantly. It is this variation of teacher response to student

contributions that differentiated the less and more effective instructional conversations of preservice teachers in this study. Pressley (2002a) echoed this finding when he observed that teachers have difficulty managing "many interpretations emanating from reading group discussions." He noted that responses varied from teachers only allowing for a fixed interpretation to allowing any interpretation of the story. Redfield and Rousseau (1981, as quoted in Cazden, 1988) speak to this phenomenon in their educational research, which validates the benefits of teachers asking "higher-order" questions.

> [A] lot of variation in cognitive impact is not caught by frequency counts of isolated question types. For the teacher, that variation includes the importance of optimal placement of higher-order questions, and the difficulties in following up more complex questions addressed to a single student in a group lesson. (as quoted in Cazden, 1988, p. 100)

In other words, the appropriateness or quality of a teacher's response cannot always be represented by a frequency count and rarely does it reflect whether or not the response furthered student learning.

The National Reading Panel Report (NICHHD, 2000) concludes that "teachers must be skillful in their instruction and must respond flexibly and opportunistically to student's needs for instructive feedback as they read" (p. 4-7). The question now lies in how to best develop teachers' ability to provide this type of instruction. Durkin (1978/1979) found that teachers were evaluating students' comprehension of a particular text rather than teaching students strategies for comprehending the particular text and how those strategies could be applied when reading independently. A follow up study by

Pressley, Wharton-McDonald & Mistretta (1998) reported that little had changed in current classrooms with regard to comprehension instruction. Specific to discussion, Alverman and Hayes (1989) found that changing a *teacher's* pattern of discourse was difficult—even when they had a desire to do so. However, research consistently supports that *preservice* teacher practices can be changed (Wolf, Mieras, & Carey, 1996) as a result of instruction. Results from the present study support and extend this finding, as this data clearly indicate that an instructional framework coupled with an explicit conversational scaffold resulted in preservice teachers' conversations shifting from more traditional IRE patterns of discourse (Almasi, 1995; Applebee, Langer, Nystrand & Gamoran, 2003; Eeds & Wells, 1989) to those which were more conversational in nature.

Educational Implications

Students in the United States are generally considered to be competent at identifying and understanding literal aspects of text (Foertsch, 1992). However, there is compelling evidence that students at all levels do not perform well on reading tasks requiring higher order thinking skills. In their recommendations for enhancing comprehension in grades K-3, the Committee for the Prevention of Reading Difficulties in Young Children (Snow, Burns, & Griffin, 1998) has suggested that instruction should stimulate verbal interaction and encourage talking about books.

This study reveals to engage in this type of verbal interaction, teachers must be able to engage in effective uptake and provide appropriate responses. This type of uptake and responsivity requires teachers who can: (a) accurately pinpoint what the student does

not understand or is contributing to the conversation, (b) have the knowledge upon which to draw in order to best respond to the student contribution, (c) have an awareness of the context or situation in which the student's contribution is being made to best facilitate a response, and (d) possess the skill with which to convey that response in meaningful ways.

Cazden (1988) discusses how a critical difference exists between "helping a child get a particular answer and helping a child gain some conceptual understanding from which answers to a similar question can be constructed at a given time" (pp. 108-109). I believe that the same holds true in teaching our preservice teachers how to engage in effective comprehension instruction and instructional conversations with their students.

Teaching preservice teachers comprehension strategies and providing them with conversational scaffolds are a necessary first step in building their knowledge and skill in teaching reading. However, this study indicates that if a true commitment exists to developing teachers who can teach students how to comprehend text in authentic situations, then teacher educators must go further. Teacher educators must provide students with many opportunities to apply the knowledge and skill they are imparting in various instructional situations with a variety of students and text in order to build preservice teacher fluency. In addition, teacher educators must provide instruction that allows for reflection, discussion, and feedback of significant teaching moments to build preservice teachers' awareness of what strategies work in a particular situation and when another strategy or tactic may be more appropriate. Alternative methods to instruction must be explored if we are committed to developing thoughtful and flexible teachers

who are focused on individual student learning. The use of transcript analysis in this study showed promise as an effective method for this type of teaching.

Scales and rubrics can provide powerful frameworks for evaluating effective comprehension instruction and effective conversations. However, we run the risk of sliding down a slippery slope if they are applied in less than authentic and thoughtful ways. Preservice teachers and teachers who are provided with a scoring rubric or scale can quickly assimilate how they are being evaluated and learn to "play the game." Exclusive use of measures which identify elements and rate effectiveness based on how often those elements are present in an instructional conversation can very easily lead to miseducative experiences for our preservice teachers and ultimately the students they teach.

Limitations of the Study

This study was limited to one class section of preservice teachers at one university in the southeastern United States over a four month period. Subsequent studies at different locations with a more diverse group of teachers and over different time periods may provide alternative outcomes. As a result, the findings from this study cannot be generalized to other populations of preservice teachers.

The study also relied on preservice teachers transcribing their own conversations with students. All of the preservice teachers listened to their tapes and transcribed the conversations they held with their students. Tapes were turned in with the hard copies of the transcripts. I randomly selected tapes to check for fidelity between tapes and typed transcripts and found only minor discrepancies (e.g., the use of a period instead of an

exclamation mark to note tone of voice, omission of a word that was present on the tape and not on the transcript or visa-versa, or grammatically altering their speech). However, some preservice teachers may have altered conversation content in their transcripts. I attempted to minimize this occurrence by stating the preservice teacher transcripts would be evaluated *only* on accuracy of transcription—not content. The preservice teachers were reminded throughout the semester that their transcripts would not be evaluated on the quality of their responsivity or level of conversation. Transcripts would only serve as tool to provide specific examples for research based analysis in a comparison of the three transcribed conversations in a final paper.

An additional limitation to this study was the use of interactive read-alouds which assesses a student's listening rather than reading comprehension. Reading aloud using interactive strategies such as story-based discussions along with storybook reading helps children construct meaning and understand stories that are read to them (Sweet, 1993). However, the ultimate goal of reading instruction is for students to apply such strategies when reading independently. The findings that emerged from this study may not parallel findings in situations where children are independently engaged in the reading task.

In addition, this study attempted to improve the practice of teacher educators and contribute to what we know about preservice teachers' instructional conversations with students. However, complications can result from occupying a dual role in the classroom as researcher and teacher. Hamilton & Pinnegar (2001) state that if the primary purpose of a study is to improve the practice of teacher educators themselves, established criteria for explaining and addressing how they negotiate the joint roles would not be necessary

since the most important aspect of validity is whether the self-study results in the improvement of practice. However, if the intent is to contribute to broader educational understandings, then closer attention must be paid to the circumstances under which data are collected, the relationship between researcher and students, and the manner in which data are analyzed (Zeichner & Noffke, 2001).

Finally, another limitation is the non-experimental nature of the study. As a result, the findings from this study cannot be used to suggest there is a causal relationship between preservice teacher responsivity and level of conversation.

Beyond these limitations, this study contributes significant findings about how preservice teachers engage in instructional conversations with elementary school students. As illustrated by Almasi et al. (2004), elementary school children can engage in conversation over text in meaningful ways. This study illustrates the importance of quality and appropriateness of teacher responses to student contributions in order to better facilitate both student conversation and comprehension of a text.

Recommendations for Future Research

The results of this study provide valuable insights into instructional conversations between preservice teachers and elementary school students. During the course of the study, several questions emerged indicating the need for further research that focuses on the responsivity of teachers to student contributions in an instructional conversation. The research methods selected to address the following recommendations should include both long term qualitative and experimental studies.

1. Current research has focused on categorizing and quantifying teachers responses to student contributions when engaged in conversation over text. This study provided insights indicating that the quality and appropriateness of preservice teacher responses in specific situations may have an impact on student comprehension during interactive read-alouds. Future study is needed concerning the relationship between the quality and appropriateness of a teacher's uptake/responsivity and a student's comprehension of the text. Specifically, research should address whether teacher uptake/responsivity equates to higher levels of student learning and comprehension during an interactive read aloud.
2. Future studies should determine how teacher responses in specific situations result in higher levels of instructional conversations. Currently we have scales which identify characteristics of effective conversations, but teachers often lack the understanding and fluidity needed to apply these elements in ways that assist students' comprehension of a text. Mixed method studies need to be conducted that build on existing conversation research to include a detailed analysis of how effective teachers respond to specific student contributions.
3. Experimental studies should be conducted to identify the types of instruction and materials that best facilitate preservice teacher's ability to respond effectively in instructional conversations with their students. Specifically, it would be useful to determine whether preservice teacher's use of transcript analysis results in higher levels of instructional conversations over other methods.
4. Theory that deals with social/psychological phenomenon is difficult if not impossible to reproduce since conditions can rarely match those of the original

study. However, reproducibility should be possible given the same theoretical perspective and following the same general rules for data gathering and analysis. Another investigator should be able to come to the same theoretical conclusions regarding the phenomena described in this study. Therefore, studies should be conducted to replicate these findings and allow any discrepancies to be explained through a reexamination of the data and the identification of different conditions that may be operating in each case.

Final Thoughts and Connections

Qualitative researchers view events through a personal lens. As I worked through the data comparing and contrasting chunks of texts, I began to repeatedly connect what I was observing in the emerging data to conversations I have engaged in with my husband about his training and teaching experiences as a Fighter Weapons School Instructor. Tactical is defined as "of or relating to small scale actions serving a larger purpose" and being "adroit in planning or maneuvering to accomplish a purpose" (*Webster's Ninth New Collegiate Dictionary*, 1986, p. 1201). Fighter Weapons School (i.e., "Top Gun") is a tactical school charged with training the top one percent of fighter pilots in the most advanced air-to-air combat procedures. The overarching purpose of the school is to teach "the best of the best" how to take these high level tactics back to their respective squadrons and effectively teach those tactics to squadron members. While initially the training is very procedural, the heart of the training centers upon developing pilots' "situational awareness." A skillful pilot quickly recognizes no two air-to-air encounters are exactly the same. The goal of Fighter Weapons School training is to teach the

procedures that are known to be most effective and then put pilots in myriad situations where they must choose between tactics dependent upon the situation in order to be successful. Situational awareness is addressed before the air-to-air encounter (briefing), during the actual flight, and afterwards (debriefing). Briefing provides the student pilot with the knowledge and skill necessary for the upcoming scenario. Debriefs include discussion as the student pilot and instructor analyze audio tapes and film. These discussions take into account "what was going through the pilots head" at particular times in the mission. Queries as to why he may have chosen a particular tactic along with subsequent conversation of the outcome are embedded in each debriefing episode. Pilots also engage in conversations as to tactical alternatives which may or may not have resulted in a more successful outcome. It is through this continual process of executing taught procedures in different situations and teaching which focuses on the response of the pilot to the differing situations that over time builds his 'situational awareness" and fluency. In time, he becomes highly proficient in responding to the threat by being able to quickly read the situation—knowing exactly which procedures to draw upon in order to produce a successful outcome.

Like a fighter pilot, a teacher rarely encounters the exact situation twice. Teachers cannot script what a student is thinking and as a result cannot script for teachers how to best respond to facilitate student comprehension of a text. Edwards and Furlong refer to this when they state:

> Talk is not one distinct item after another. It involves what has been called "conditional relevance": the meaning of an utterance arises partly from

something else which has been (or will be) said, perhaps some distance away in the interaction. (1978, p. 41)

This study highlights the crucial need to develop in teachers the responsivity and uptake in order to best facilitate student comprehension. As teacher educators, we need to develop "situational awareness" in our preservice teachers so they are able to respond appropriately to student thinking. It is not enough to arm preservice teachers with knowledge and procedures and send them out into their classrooms. A fighter pilot with knowledge in radar and heat seeking missiles but limited "situational awareness" would be considered ineffective and dangerous in the air-to-air environment. Conversely, that same knowledge in the hands of a pilot who has developed good situational awareness in how to best employ them is highly valued and effective. Furthermore, having developed the skill to carry out a procedure does not ensure it will be used effectively. A pilot may have the skill to effectively engage in air-to-air combat each time he goes up. However, without situational awareness he may be shooting down a great many friendly aircraft.

The same is true when instructing preservice teachers. As teacher educators, we may impart preservice teachers with the knowledge and skill to employ a particular comprehension strategy. Preservice teachers may become expert in initiating open-ended questions and following up the with research based probes which are shown as effective in furthering student comprehension. However, if the initiating question and follow up probe is not appropriate to the reading situation, then they are similarly ineffective in the teaching environment.

Research clearly indicates that even with in-depth knowledge and skills, teachers often teach comprehension strategies in very perfunctory ways (Villaume & Brabham,

2002). To apply Cazden's (1988) thoughts about language development to comprehension, procedures and examples of what works in comprehension instruction "should be models to learn from not examples to learn" (p. 108).

I believe that teacher educators need to consider the value of using transcript analysis and video taping of preservice teachers instructional conversations with the goal of developing preservice teachers' teaching fluency and situational awareness. Using the structure of providing an initial "briefing," we can set the stage for meaningful preservice teacher/student interaction. Gallimore and Tharpe (1982) refer to this type of teaching as providing a metascript for instruction. Teachers using metascript provide verbal instruction that has a general format and general guidelines suggestive of a particular strategy, but is not so highly prescriptive that there is no room for responsive teaching. Employing such a format allows preservice teachers to plan and implement objectives with the overarching purpose of remaining focused on responding appropriately to student thinking. Debriefing or the subsequent analysis of specific teaching moments may over time build preservice teachers' proficiency in responding effectively to student responses in order to build their independence and deeper levels of comprehension.

Duffy (2002) found the teachers who were able to modify their instruction to meet individual students' needs resulted in student comprehension gains over implementation of a particular procedure. Developing in preservice teachers the ability to engage in effective uptake may seem like a small scale action. However, as noted earlier, "tactical" is defined as a small scale action serving a larger purpose" and "being adroit in planning or maneuvering to accomplish a purpose" (*Webster's Ninth New*

Collegiate Dictionary, 1986, p. 1201). This study has provided insight that a teacher's ability to provide a quality and appropriate response to student contributions in a variety of situations results in higher levels of instructional conversations. While seemingly a "small scale action," teacher uptake and responsivity to individual students' contributions may be at the heart of what encompasses the "larger purpose" of effective comprehension instruction.

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APPENDIX A.

COMPREHENSION NOTES

Comprehension Instruction

1. **What is comprehension?**
   Comprehension is an active, strategic, problem-solving, and purposeful process.
   - Active – interacting, or transacting, with text; includes (1) using prior knowledge along with personal experiences and perspectives to make sense of what is being read and (2) having knowledge, experiences, and perspectives changed as a function of reading
   - Strategic – using prior knowledge to enable comprehension fostering strategies such as inferencing, predicting, questioning, summarizing, and creating mental images
   - Problem-solving – monitoring and addressing word- and text-level problems that emerge during reading; using prior knowledge to activate "fix-up" strategies including intentional activation of comprehension fostering activities and additional problem-solving strategies such as rereading, reading ahead, using the dictionary or glossary, and asking someone for help
   - Purposeful - having a reason for reading; adjusting rate of reading, strategies, and mental effort accordingly

2. **What are comprehension strategies?**
   Comprehension strategies are actions that readers take as they use prior knowledge to make sense of what they read.
   - Comprehension fostering strategies are actions that readers take when reading is proceeding smoothly. These strategies include but are not limited to inferring, predicting, questioning, summarizing, and creating mental images. Sometimes readers are aware of the comprehension fostering strategies they activate; sometimes they are not.
   - Comprehension monitoring strategies are actions that readers take as they identify and address problems that emerge during reading. At the word-level, fix-up strategies include careful processing of with-in word information and using

contextual information to cross check. At the text-level, fix-up strategies may include intentional activation of comprehension fostering strategies (e.g., questioning, summarizing, creating mental images). At both the word- and text-level, fix-up strategies may include rereading, reading ahead, using the dictionary or glossary, and asking someone for help or discussing the problems with others.

3. **What different stances do readers take when comprehending text?**

   - Aesthetic stance – a reading stance that emphasizes living through the experience
   - Efferent stance – a reading stance that emphasizes carrying away accurate information

   A reading event often involves both stances but is dominated by one. The stance influences the strategies that the reader activates.

4. **What does the research say about teaching comprehension strategies?**
   Research indicates that many students develop sufficient decoding strategies but lack the comprehension strategies essential to skillful reading. Without direct instruction in comprehension fostering and monitoring strategies, most of these students will not develop the active, strategic, problem-solving, and purposeful thinking processes that characterize skillful readers. Direct instruction in comprehension strategies includes being explicit and fostering independent application.

   - Being explicit - Explicit comprehension strategy instruction makes the invisible thought processes of skillful readers visible. Research documents the positive impact of many different variations of explicit strategy instruction. These variations can be sorted into two categories—instruction that proceeds from the *outside in* and instruction that proceeds from the *inside out*.

     - Outside-in approaches - Teachers make visible comprehension strategies that others have labeled as useful. Some outside-in procedures focus on a specific set of strategies. For example, Reciprocal Teaching emphasizes asking questions, summarizing, making predictions, and seeking clarification. K-W-L invites students to make connections to what they Know, pose questions about what they Want to learn, and summarize what they Learned.
     - Inside-out approaches - Teachers do not teach predetermined strategies; instead they help students uncover and make visible their own strategies. Often the focus is comprehension monitoring which is a broad and comprehensive strategy with multiple strategies embedded within it. In an inside-out approach, teachers utilize open-ended thinking procedures such as think alouds.

     Perhaps the most effective explicit instruction is a combination of teaching specific comprehension strategies and helping students discover their own.

   - Fostering independent application - Teachers need to deliberately move students toward independent and flexible application of comprehension strategies. Following is an instructional framework that releases responsibility to students.

- Tell and explain to students what they are expected to learn and why
- Model for students what is expected
- Provide guidance as students practice: acknowledge successful application, provide corrective feedback, offer additional examples/explanations, prompt problem solving and deeper levels of understanding
- Promote independent application by providing students with tools that serve as reminders and enable independent problem solving (e.g., list of word-solving strategies, list of comprehension strategies)

Different procedures describe and emphasize to varying degrees these components. For example, some procedures put more emphasis on the instructional conversations that take place during guided practice.

5. **What different kinds of reading events do teachers use for direct instruction of comprehension strategies?**
   Depending on the text and the reading level of the students, the teacher chooses from one or more of the following options. In all of the options, teachers and students pause periodically to try out a comprehension strategy or share what they are thinking. These reading events can be used in combination.
   - Modeled reading – The teacher reads aloud.
   - Shared reading – The teacher reads a text as the students follow along and chime in when appropriate.
   - Interactive reading – The teacher and students take turns reading a text (includes buddy reading).
   - Guided reading - Each student reads the whole text (usually silently) with the teacher close at hand to offer assistance as needed; the teacher often listens in as individuals read.
   - Independent reading – Each student reads the text independently, sometimes meeting at a designated time to discuss what was read.

6. **What does the research say about instructional conversations?**
   At its best, direct instruction of comprehension strategy instruction features instructional conversations—not interrogations. In these instructional conversations, the actions of the teacher are determined largely by the responses of the students, not by predetermined questions. Such conversations not only recognize and value transactions that occur between readers and texts but also the transactions, or thoughtful interchanges, that occur among teachers and students. Student-driven dialogues are the hallmark of effective comprehension strategy instruction and stand in stark contrast to traditional interrogations in which the role of students is simply to answer questions posed by the teacher. The following instructional strategies are important pieces of effective instructional conversations.

- comprehension monitoring – students and teachers identify and address word- and text-level problems that emerge during reading
- collaborative learning – students and teachers engage in the ideas of others; they participate in tentative and probing talk that emerges from a safe and trusting atmosphere
- graphic and semantic organizers including story maps – readers use supports such as Venn diagrams, pro/con charts, and story maps to help organize and structure their thoughts
- teachers asking questions – teachers formulate questions based on student cues; they support partially correct responses and extend correct responses by asking questions that encourage further thinking and reflection
- students asking questions – students initiate their own questions as they participate actively in their reading
- summarization – students and teachers pause periodically in their reading to share what they have learned or figured out—including stated and inferred information
- multiple strategy emphasis – students learn to use strategies flexibly and in combination as they interact over text with the teacher and other students

Sociolinguistic theory explains that thought is internalized dialogue: The ways students talk about texts with others shape the ways that they think about texts independently. If the instructional goal is to develop active, strategic, problem-solving, and purposeful readers, instructional conversations must provide extensive opportunities for students to engage in the talk of skillful readers under the tutelage of their teacher.

7. What are conversation scaffolds and how do they help transform comprehension interrogations into conversations?

Conversation scaffolds are strategy-activating prompts that help transform traditional question-answer sessions into thoughtful and reasoned discussions of text and the reading process. These scaffolds assist teachers in initiating and sustaining conversations about text that feature active and strategic thinking. Examples of prompts include the following:

- What did you learn?
- What do you wonder?
- What do you predict?
- What pictures did you see in your brain?
- What interesting words did you notice?
- What literary techniques did you notice?

A few general questions such as these reveal students' thinking and open the door for teachers to probe, clarify, and extend students' thoughts when appropriate. These conversation scaffolds help teachers move beyond comprehension assessment and into the realm of comprehension instruction.

8. Why do teachers need to thoughtfully adapt research-based procedures for teaching comprehension?

Comprehension instruction is a dynamic and complex activity. Problems emerge when teachers latch on to one specific procedure or one specific set of prompts, implementing it in a technical and compliant manner without carefully monitoring its effects on students. A critical piece of effective comprehension instruction is a thoughtfully adaptive teacher who makes whatever adjustments are needed to help students develop as active, strategic, problem-solving, and purposeful readers. The decision-making processes of thoughtfully adaptive teachers are evident in the ways they plan and implement comprehension instruction. For example, thoughtfully adaptive teachers . . .

- match texts, readers, and levels of support.
- choose comprehension strategies and conversational scaffolds (strategy-activating prompts) that fit the text.
- modify and combine research-based procedures.
- use scaffolds as needed to support instructional conversations, but gradually and intentionally withdraw the scaffolds when they begin to constrain rather than support independent, spontaneous, and flexible application of comprehension strategies.
- stay focused on the target comprehension strategies but adjust plans and procedures "midstream" as they monitor student understanding.
- know when to clear up confusion by telling (e.g., providing background information) and when the better alternative is to probe, support, and coach (e.g., asking students to create a mental image, to connect to what they know, to reread, to read on).
- provide the minimal amount of support needed for students to be successful, thus deliberately helping students develop independence.
- do not limit their teaching of a comprehension strategy to planned reading lessons but keep the strategy in play across lesson boundaries and the school day.

Thoughtfully adaptive teachers choose to teach comprehension in active rather than compliant ways. They demonstrate inner control of their teaching: Their in-depth understanding of the research allows them to use their knowledge and skills in flexible and reasoned ways when confronted with instructional challenges. These teachers understand that comprehension instruction, like comprehension itself, is an active, strategic, problem-solving, and purposeful process.

9. Why is it important to teach comprehension?

- Comprehension is the reason for reading.
- Many students will not develop as active, strategic, problem-solving, and purposeful readers without direct instruction of comprehension strategies.
- Comprehension is not an absolute ability. Students' abilities to comprehend text vary as the texts they read change. For example, the texts that students read differ

in the demands presented by content, vocabulary, length, sentence patterns, text structures, and literary devices.

10. When should comprehension instruction begin and end?

Comprehension instruction needs to begin at the onset of schooling (e.g., discussion of read alouds in kindergarten). It needs to continue through high school and beyond—whenever students need assistance in reading challenging text across the curriculum.

APPENDIX B.

MODELED LESSON PLAN

Lab Teachers _____ Date _____

Grade _____ Classroom Teacher _____

Focus Procedure Interactive Read Aloud Text _____

Lesson Objectives
Directions: Examine state reading standards for your grade level. List standards addressed in this lesson.

Materials
List everything you need to bring

Prereading – 1-2 minutes
Directions: Prepare a few of your own KWL statements to use throughout the lesson as models if needed.

1. Read the title of the book and examine the picture. Use the KWL scaffold to support instructional conversation.
   -
   -

During Reading – 30 minutes
Directions: Divide the text into about four sections. Read the text aloud to the students. Pause after each section and use the KWL scaffold to support instructional conversation.

2. Begin reading. Stop on p. __ (or designate last sentence if pages are not numbered). Use the KWL scaffold to support instructional conversation.

3. Continue reading. Stop on p. __. Continue to use the KWL scaffold to support instructional conversation.

4. Continue reading. Stop on p. ___. Continue to use the KWL scaffold to support instructional conversation.

5. Continue reading to the end of the book. Continue to use the KWL scaffold to support instructional conversation.

After Reading – 8-10 minutes
Note: These are my notes for the *Knots On A Counting Rope* Lesson.

1. Use Word Wall Words to say something about the story. (e.g., possess, cluttered, rumpled, disgrace). When appropriate, ask students what their sentences mean.
   - Boy possessed a very special rope.
   - The blue sky was cluttered with clouds.
   - The wind rumpled Boy's hair as he rode in the race.
   - It was not a disgrace to lose the race; it was a proud moment when Boy finished it.

2. Introduce a new word - wounded

   In the text
   - How is it used? – I hear it in the wounded wind.
   - What is it? - This sentence means that the wind was howling like it was hurt or injured. Wounded means hurt--like your body has been hurt or injured. It also can mean sad – like you have hurt or injured feelings.
   - What are some examples? - Ask each student to use the word to tell about an injury or hurt that they can see. Model and prompt as needed.
     - My daughter wounded her knee playing soccer.
     - My dog was wounded when he got in a dog fight.

     When appropriate, ask students what their sentences mean.
   - What is it not? – Not appropriate for this word.

3. Another Context (optional)
   - How is it used? My feelings were wounded when my boss fussed at me.
   - What is it? This sentence means that my feelings were hurt.
   - What are some examples? - Ask each student to use the word to tell about a time when they experienced wounded feelings.

4. Introduce a new word - sweep
   In the text
   - How is it used? – There was a sweep of blue in the rainbow.
   - What is it? - This sentence means that there was a streak of blue in the rainbow—but it was curved not straight. Discuss the connection to the verb "sweep" and "swept."
   - What are some examples? - Ask each student to use the word to tell about something that is a curved streak.

- I applied a sweep of hairspray to my hair.
- I have a sweep of flowers in my garden--not a straight row of flowers.

When appropriate, ask students what their sentences mean.

- What is it not? – Not appropriate for this word.

Additional Activities

Comprehension Activities

Directions: Each partner mentally prepares for one of the following activities by completing the designated graphic organizer. Attach the two completed graphic organizers to the lesson plan with the name of the person completing it.

1. Develop a character web for Boy and/or Grandfather.

2. Use a Venn diagram to compare and contrast Boy and Grandfather.

3. Discuss the story using a story map.

4. Discuss one word summaries. Follow with making connections to self, text, and world.

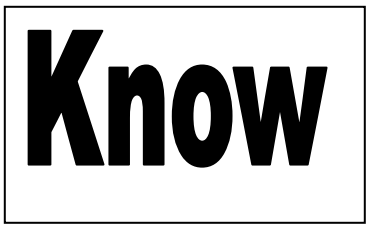
5. Discuss the pros and cons of Boy participating in the horse race.

Phonics and Word Analysis Activity

Directions: Choose a big word that is relevant to the text. Prepare a making words activity by providing a list of 12-15 words and clues. You do not need to include transfer and sorting. Attach the list and clues to the lesson plan.

APPENDIX C.

CONVERSATIONAL SCAFFOLD OF K-W-L CARDS



APPENDIX D.

K-W-L REFLECTION CHART

K	W	L

APPENDIX E.

PROTOCOL FOR INSTRUCTIONAL CONVERSATION

We have discussed the research which demonstrates that one of the characteristics that differentiate more effective from less effective teachers of reading is their ability to facilitate instructional conversations about text with their students.

One of your assignments this semester has been to compare and contrast the ways that you engage students in instructional conversations about text at the beginning and at the end of the semester.

This morning you will be reading a book aloud to the 2-3 students you worked with on the first day of lab. The lesson objective is to *engage your students in instructional conversation about the text you are reading*. This instructional conversation will be tape recorded and later transcribed by you. I am going to give you one of three books (Sylvester, Hedgie, or Three Questions). You will have 20 minutes to read through it and independently draft a lesson plan on how you will engage children in instructional conversation over the assigned text. At the end of 20 minutes you may then collaborate with others who have your same book to select two vocabulary words to use for the vocabulary portion of the lesson.

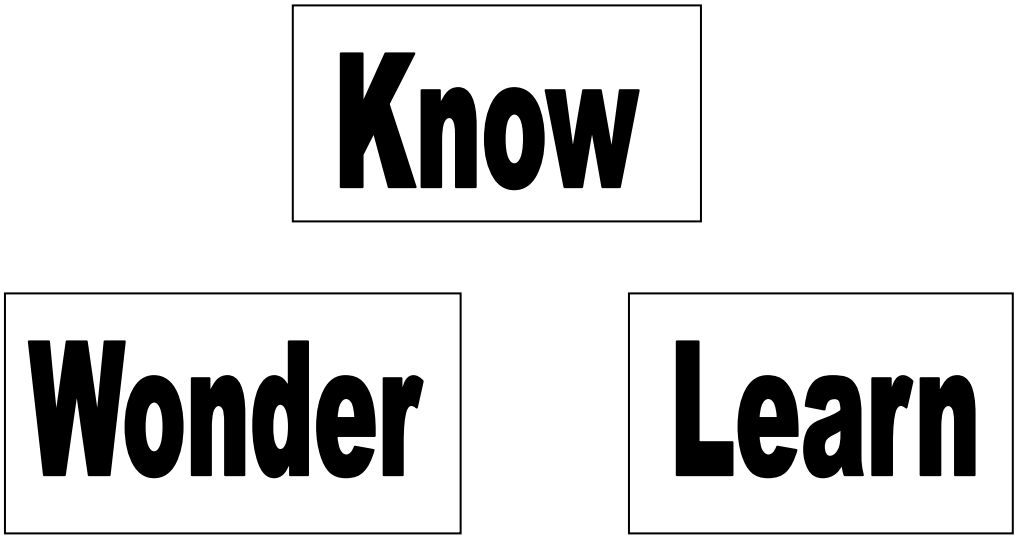
This particular exercise will enable me to see where *you* are now, how you view the process, and how you implement a conversation about text with children. Therefore, for the conversation portion of the lesson you will need to plan independently. We will complete a similar activity at the end of the semester.

Are there any questions?

APPENDIX F.

PLACEMENT OF K-W-L CARDS

The experiment protocol required the K-W-L cards to be placed as follows:

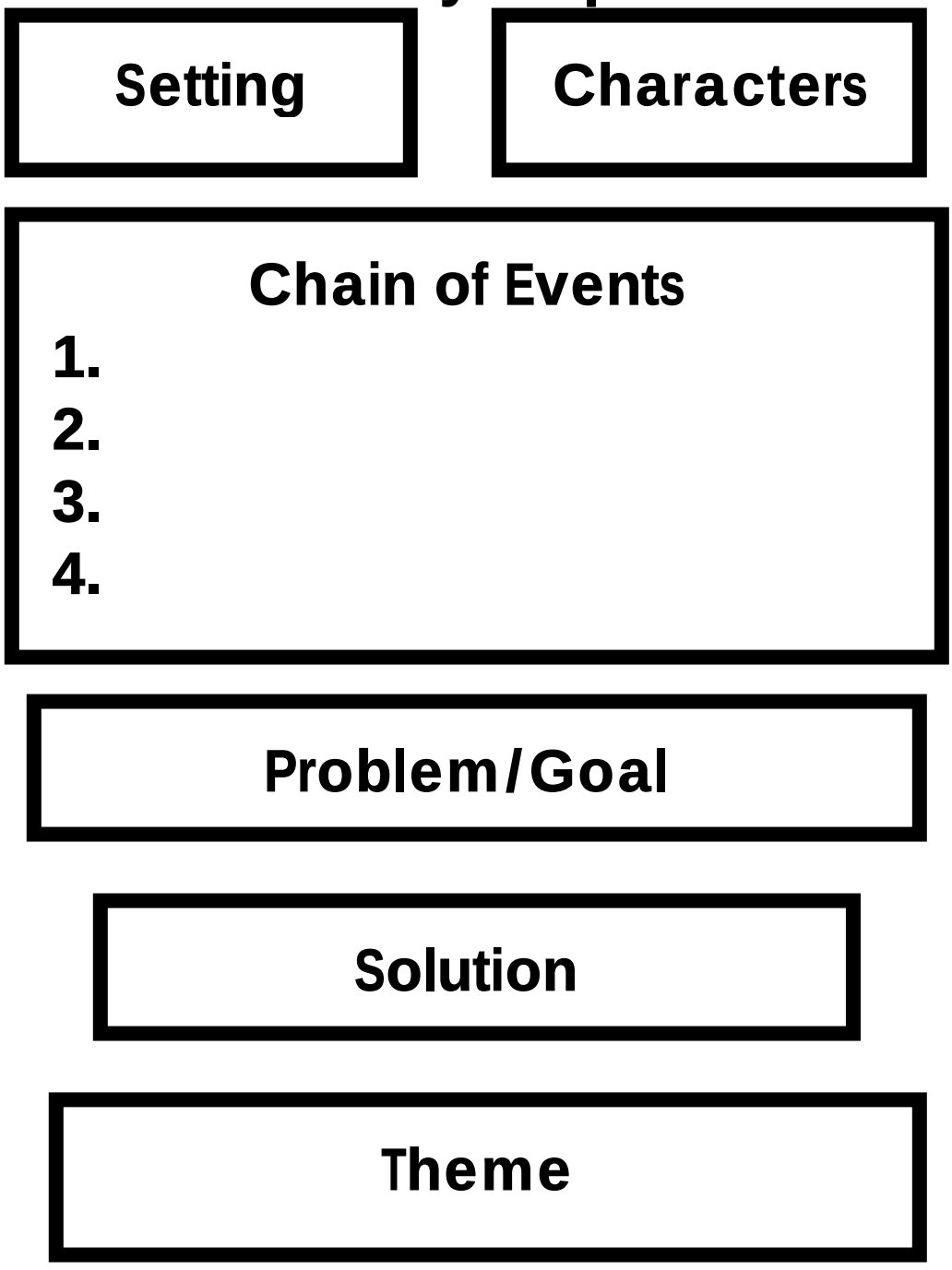


APPENDIX G.

GRAPHIC AND SEMANTIC ORGANIZERS

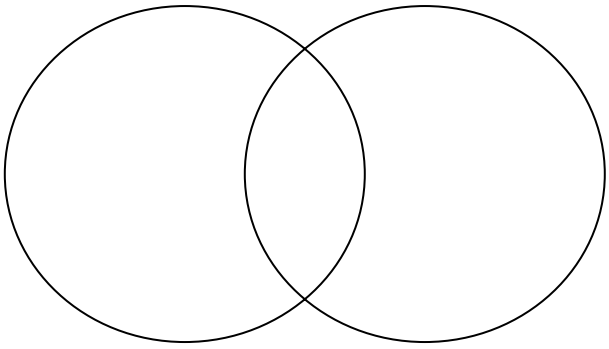
Pro	Con

Story Map

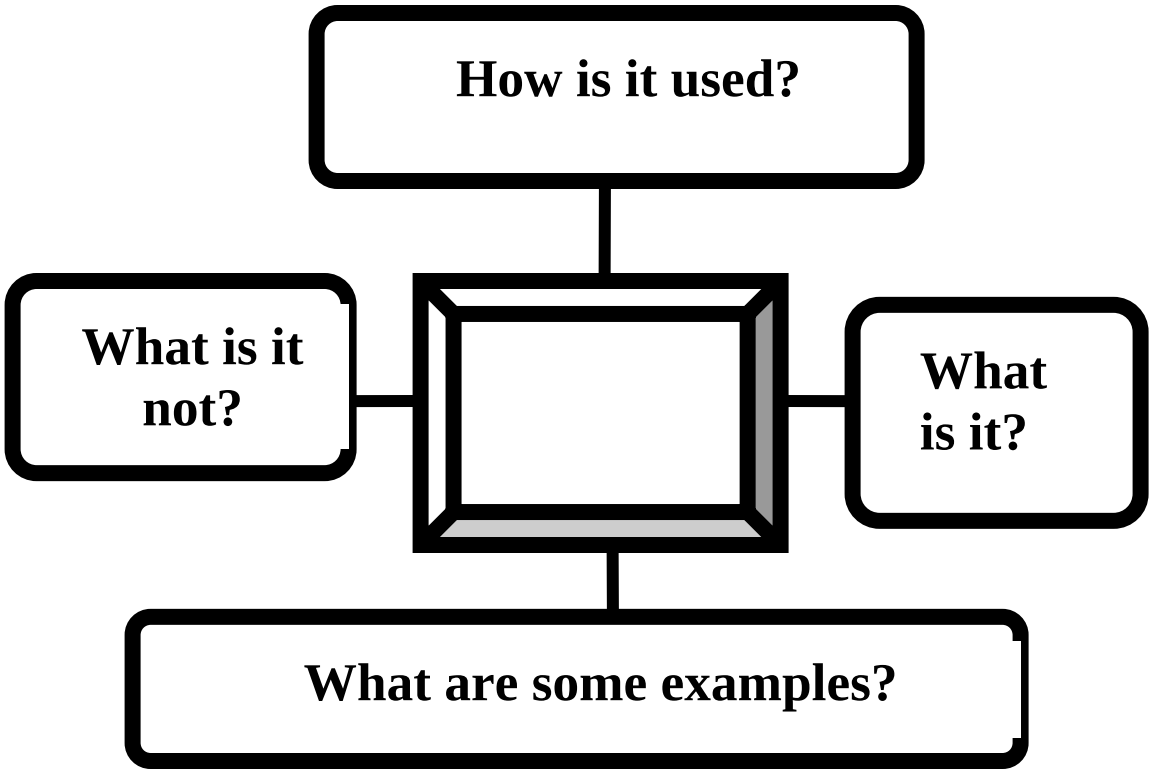

Setting
Characters
Chain of Events
1.
2.
3.
4.
Problem/Goal
Solution
Theme

Text to Self	Text to Text	Text to World

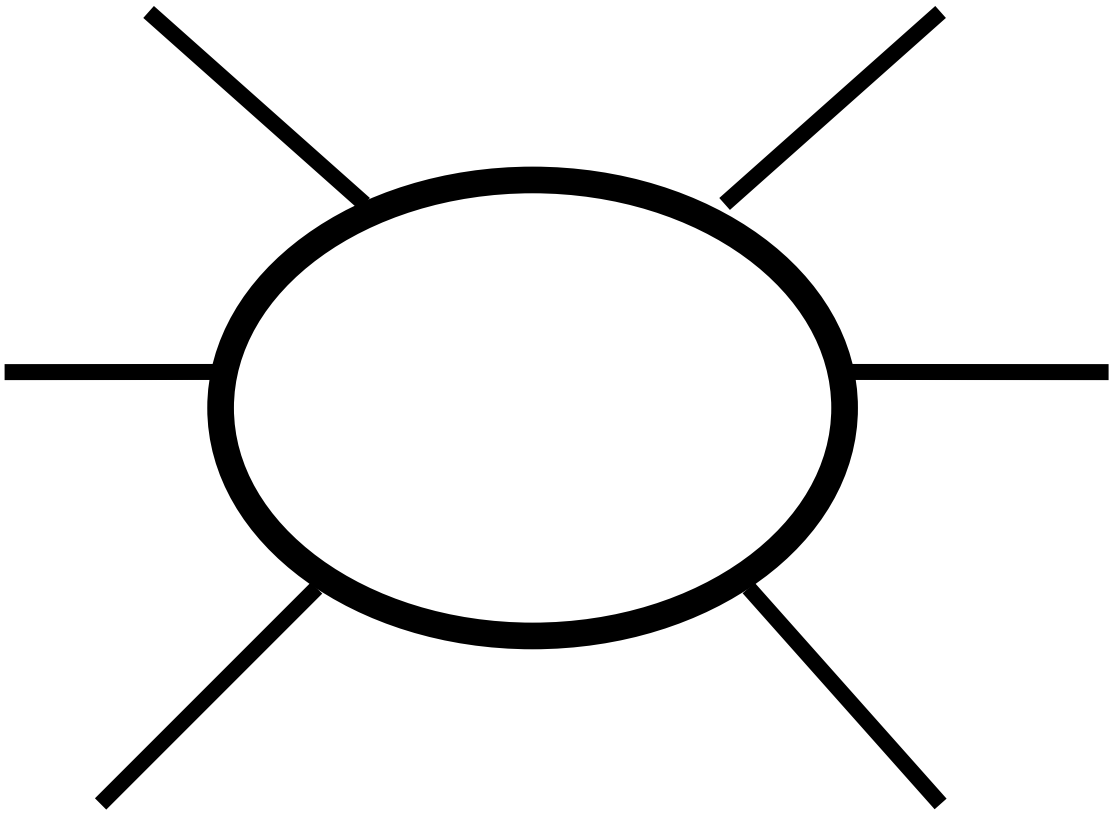
Venn diagram



Word Map



Web



APPENDIX H.

LETTER OF CONSENT

INFORMED CONSENT
Assessing Pre-service Teacher's Comprehension Instruction: Instructional Conversations

You are invited to participate in a research study that focuses on assessing pre-service teachers' understandings of reading comprehension processes as revealed in transcription of instructional conversations. Shannon Henderson will be the principal investigator. Other investigators are reading faculty and graduate students in reading education. We hope to learn more about how to promote professional growth in the area of comprehension instruction for pre-service teachers like you. You were selected as a possible participant because you are enrolled in CTRD 3700, Foundations of Language and Literacy Instruction I, at Auburn University.

If you decide to participate, we are requesting that you grant us permission to make and analyze copies of the three transcripts that you completed and analyzed for the final paper. Your participation does not require any time beyond the required completion of the final paper. The assessment instrument that we develop this semester will not be used to grade your final paper. Your paper will be graded using the criteria provided at the beginning of the semester (e.g., self evaluation of progress over time).

The only risks that you may encounter related to participation in this study are coercion and breach of confidentiality. We have attempted to minimize or eliminate the risk or coercion by assuring you that your grade in CTRD 3700 will not be affected by your decision to contribute your transcripts to the data base for this study.

We have attempted to minimize or eliminate the risk of breaching confidentiality in several ways. Any information obtained in connection with this study that can be identified with your name will remain confidential. To keep sets of your individual work intact for comparisons across time, a numerical coding system will be employed to ensure anonymity. When each item of your work samples is copied, your name will be removed and replaced with a numerical code that only your instructor/researcher will be able to access and use. All data will be analyzed, and the results may be published in a professional journal and/or presented at a professional meeting; however, no identifiable information will be included.

Although you will not experience any direct benefits from this study, we hope that future pre-service teachers will benefit from use of the assessment instrument developed in this research study.

If at any time, you no longer with to allow us to use your data as part of the research study, you may withdraw your permission without penalty. Your decision whether or not to participate will not jeopardize your future relations with Auburn University or the Department of Curriculum and Teaching.

If you have any questions, we invite you to ask them now. If you have questions later, Shannon Henderson, (334)844-3768, hendesh@auburn.edu will be happy to answer them. You will be provided a copy of this form to keep.

For more information regarding your rights as a research participant, you may contact the Auburn University Office of Human Subjects Research of the Institutional Review Board by phone (334)844-5966 or email at hsubjec@auburn.edu or IRBChair@auburn.edu.

HAVING READ THE INFORMATIO PROVIDED, YOU MUST DECIDE WHETHER OR NOT YOU WISH TO PARTICIPATE IN THIS RESEARCH STUDY. YOUR PERMISSION INDICATES YOUR WILLINGNESS TO PARTICIPATE.

_____		_____	
Participant's signature	Date	Investigator's Signature	Date
_____		_____	
Print Name		Print Name	