

A STUDY OF TEACHER-STUDENT
INTERACTIONS DURING READING IN
ONE-TO-ONE LITERACY TUTORING SESSIONS

by

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TABLE OF CONTENTS

STATEMENT.....	3
ACKNOWLEDGMENT.....	4
LIST OF TABLES.....	10
ABSTRACT.....	11
CHAPTER1: INTRODUCTION.....	12
Statement of the Problem.....	12
Significance of the Study.....	13
Research Questions.....	16
Theoretical Assumptions.....	16
Summary.....	17
CHAPTER 2: REVIEW OF THE LITERATURE.....	18
Introduction.....	18
Sociocultural Nature of Learning.....	18
The Zone of Proximal Development.....	19
Scaffolding.....	22
Sociocultural Dimensions of Classroom Interactions.....	24
Discourses.....	25
Classroom Discourse.....	25
Participation Structure.....	27

TABLE OF CONTENTS - *continued*

Teacher-Student Interaction Between Discourses.....	28
Instructional Communication During Oral Reading.....	29
Selectivity of Feedback.....	30
Timing of Feedback.....	30
Form of Feedback.....	31
Current Perspectives of the Reading Process.....	32
Comprehension Strategies.....	33
Meta-cognition.....	34
Summary of Research Framework.....	35
 CHAPTER 3: METHODOLOGY.....	 36
Introduction.....	36
Data Collection.....	38
Participant Observation.....	38
Interviews.....	39
Taped Sessions.....	40
Reading Miscue Inventory (RMI).....	41
Miscue Analysis Texts.....	43
Lesson Records.....	45
Reading Materials.....	45

TABLE OF CONTENTS - *continued*

Data Analysis.....	46
First Level: Developing Categories.....	46
Second Level: Describing Changes in Reading Strategies.....	50
Miscue Analysis Procedure I.....	50
Setting and Participants.....	52
The School-Site.....	52
The Program.....	54
The Teacher.....	56
The Students.....	57
Summary.....	60
 CHAPTER 4: FINDINGS.....	 62
Introduction.....	62
Nature of the Interactions.....	63
Types of Teacher Actions.....	63
Types of Student Actions.....	66
Frequency of Teacher Actions.....	66
Frequency of Student Actions.....	70
Interactions at Two Points in Time.....	72
Interactions During Problem Solving with Teacher's Support.....	74

TABLE OF CONTENTS - *continued*

Reinforcing Strategies Used.....	75
Directing Students to take Specific Action.....	77
Telling or Giving Information.....	79
Complex Interactions.....	81
Summary of Teacher-Guided Problem-Solving Interactions.....	84
Interactions During Independent Problem Solving.....	85
Student Self-Corrects.....	87
Student Uses Graphophonic Cues.....	88
Student Rereads.....	89
Student Skips, Reads Ahead.....	90
Student Uses Multiple Cues.....	91
Summary of Independent Problem-Solving Interactions.....	92
Students' Reader Profiles.....	93
Comparison of Reader Profiles: Terri.....	94
Comparison of Reader Profiles: Mike.....	97
Comparison of Reader Profiles: Flo.....	100
Comparison of Reader Profiles: Bill.....	103
Summary of Reader Profiles Comparisons.....	106

TABLE OF CONTENTS - *continued*

CHAPTER 5: DISCUSSION.....	108
Introduction.....	108
Discussion of the Findings.....	109
Research Question #1.....	109
Research Question #2.....	114
Research Question #3.....	118
Implications.....	122
Recommendations for Further Research.....	123
Limitations.....	124
Conclusions.....	125
APPENDIX A: TEACHER BELIEF PROTOCOL.....	127
APPENDIX B: THE READING INTERVIEW.....	131
APPENDIX C: SUBJECT'S CONSENT FORM (TEACHER).....	133
APPENDIX D: SUBJECT'S CONSENT FORM (PARENT).....	136
APPENDIX E: MINOR SUBJECT'S CONSENT FORM.....	139
APPENDIX F: MISCUE ANALYSIS PROCEDURE I CODING FORMS.....	141
REFERENCES.....	152

LIST OF TABLES

Table 1:	Components of the Lessons.....	41
Table 2:	An Example of a Cycle of Interaction.....	48
Table 3:	Descriptive Data for the Students.....	58
Table 4:	Categories of Teacher Actions.....	65
Table 5:	Categories of Student Actions.....	66
Table 6:	Frequency of Teacher Actions.....	67
Table 7:	Types and Frequency of Actions Contained in Combining Actions.....	68
Table 8:	Frequency of Student Actions.....	70
Table 9:	Number of Interactions at Week 2 and Week 8.....	73
Table 10:	Reader Profile (Terri).....	95
Table 11:	Reader Profile (Mike).....	98
Table 12:	Reader Profile (Flo).....	101
Table 13:	Reader Profile (Bill).....	104

ABSTRACT

The purpose of this study was to observe and analyze teacher-student interactions when students read a text during one-to-one literacy tutoring sessions in order to identify features of their interactions and describe how these help further the students' literacy learning. The sociocultural nature of learning was used as the theoretical framework for the study.

The research was conducted using a qualitative case study approach. A teacher and one group of students were observed during an academic semester. Data were collected from the following sources: lesson plans, interviews with the participants, field notes, Reading Miscue Inventory, and audio and video tapes of the tutoring sessions.

Only the reading experiences of the tutoring sessions were analyzed. The results showed the types of teaching and learning strategies used by the teacher and students, and changes in the students' reading strategies. The findings suggested that the changes in the students' reading strategies might be due to the teacher's efforts at critical learning moments during their interactions, to guide the students into making use of their intuitive knowledge of language cues.

The results of the study reflect the need for educators to focus attention on the nature of teacher-student interactions during literacy tutoring and the way in which teachers scaffold students' learning of literacy concepts and strategies. While scaffolds are necessary to a child's learning, what is done in these scaffolds is more critical to moving the child toward independence.

Chapter 1: Introduction

Statement of the Problem

The past two decades have seen a renewed interest in early intervention programs for children in beginning grades who appear to be at risk of reading failure. Because transition rooms and retention in a grade have generally been ineffective in resolving early achievement delays (Holmes & Mathews, 1984), educators have sought alternative approaches to help children who are not making satisfactory progress in learning to read and write. Many schools provide tutoring programs that vary in practice, organization, scale, structure and effectiveness. Some of these programs emphasize one-to-one child-specific tutoring in the context of small group instruction with the goal that the children develop reading and writing strategies so they can learn successfully within a regular classroom.

Many studies have shown significant benefits from literacy tutoring programs for struggling beginning grade readers (DeFord, Lyons, & Pinnell, 1991; Pinnell, Lyons, DeFord, Bryk, & Seltzer, 1994; Shanahan & Barr, 1995; Wasik & Slavin, 1993). While these studies have found one-on-one tutoring to be effective, the reasons for the effectiveness of tutoring are not clear. Perhaps it is the instructional technique that is responsible for the success, or maybe it is the material used, or the focused engagement of the learner with both the materials and the learning process for longer periods of time than in regular classrooms (Juel, 1996).

Most of the previous studies on literacy tutoring have focused on the effects of

particular methods or programs on the academic performances of the tutored students. If we are to understand the successes and failures of literacy tutoring, we need to look beyond the issues of efficacy addressed in previous studies and investigate the relationship between tutor-child interactions and the child's learning of literacy concepts and strategies. It is these tutor-child interactions that were the focus of this research.

Significance of the Study

As mentioned earlier, several major research studies have found one-on-one tutoring to be effective. Cohen, Kulik, & Kulik (1982), in a meta-analysis of the achievement outcomes of 52 tutoring studies, found an average effect size of .40 with regard to the academic achievement gains of tutored children. This means that students who were tutored gained an additional 40% of a standard deviation in reading achievement over control group students who receive no tutoring. These gains are both statistically significant and educationally meaningful. As the authors put it, "(T)hese programs have definite and positive effects on the academic performance and attitudes of those who receive tutoring" (p. 244).

Wasik and Slavin (1993) analyzed 16 studies of first grade tutorials for children at risk of reading failure. They found an average effect size of .51 in the various comparisons that they tabulated, suggesting that the tutored children gained substantially more than control comparisons.

Shanahan and Barr (1995) examined studies of Reading Recovery resulting in the following conclusion:

From all of this it seems reasonable to conclude that children who receive Reading Recovery instruction make sizable gains in reading achievement during the first-grade year. These gains compare favorably with those of higher achieving first graders who receive only regular classroom instruction, or such instruction along with compensatory support. (p. 973).

On the basis of these studies, it seems clear that tutoring can be an effective strategy for improving student achievement. Nonetheless, we could use tutoring more effectively if we had a more complete idea as to how it works. Unfortunately, there have been few studies that have attempted to determine how tutoring influence learning. It appears that individual instruction may be superior to group instruction overall, at least with lower achievers (Pinnell et al., 1994), but whether this is due to the nature of the specific teaching interactions that take place is unknown (Rasinski, 1995).

We simply do not know why tutoring programs work, although there are many hypotheses and a few empirical clues (Shanahan, 1998). Several explanations have been proposed, including greater individual involvement, improved attention, increased time on task, teacher explanations that are more likely to match the prior knowledge of the student, greater match of curricular demands to student needs, more appropriate individual pacing, more immediate and relevant feedback to student attempts, and greater opportunity for student identification with the tutor. Shanahan also noted that to begin to sort out such possibilities would require a very different type of research that does more than simply documents that tutoring works or that it works better than other interventions.

According to Shanahan (1998), by far the most helpful attempts to determine how tutoring works were those that examine specific interactions and linked these interactions to student learning. For instance, Juel (1996) documented the instructional choices made by the tutors in her program and correlated these choices with student learning gains. She found that the amounts of scaffolding and modeling, as well as the number of minutes spent on certain aspects of the curriculum (letter-sound relationships, controlled vocabulary materials), were associated with student learning.

In another interaction study, Pinnell (1993) examined the tapes of 10 teachers in the Reading Recovery program in order to identify “particular effective instructional moves that would refine the application of the Reading Recovery model” (p. 292). The study described the types of teacher language (prompts, informative reinforcements) and the use of instructional time (percentage of time spent in reading, writing, or other activities) rather than the teacher-student interactions. In other words, the study reported on the teacher’s action and not the ways in which the teacher-student interactions affected a child’s learning. Beyond these hints, however, we have little evidence as to why tutoring works.

According to Shanahan (1998), there is a need for research that takes a more theoretical approach to tutoring in order to determine why or how it works. Particularly important are considerations of the importance of tutor-student interactions and how these interactions shape the child’s literacy learning.

Therefore, it is these tutor-student interactions within a literacy tutoring program

that were the focus of the present research. The unit of analysis was the tutor and student working in a one-to-one context, with each bringing his or her own perspective on the literacy process to the context. The purpose was to investigate tutor-student instructional interactions. Findings from such study could be useful not only in helping us construct better tutoring programs but also in helping us understand what works in literacy tutoring.

Research Questions

The purpose of this investigation was to study a teacher and student during one-to-one literacy tutoring in the context of small group instruction to identify features of their interactions and describe how these helped the students in their literacy learning. The following questions guided my study:

1. What is the nature of teacher-student interactions when a student reads text in one-to-one literacy tutoring sessions?
2. What is the process in these interactions by which the teacher helps further the student's reading progress?
3. What, if any, change can be observed in the student's reading strategies?

Theoretical Assumptions

The inquiry that was undertaken in this study was situated within a theoretical frame that viewed learning in general and learning to read in particular as a socio-cultural process:

1. Learning involves an active reconstruction of concepts and systems with the assistance of someone who is already competent in the use of the

systems (Vygotsky, 1978).

2. One aspect of effective teaching involves assisting learners to solve problems that would be beyond their unassisted efforts as they move toward independence (Wood, Bruner & Ross, 1976).
3. Teacher-student interaction takes place within specific cultural and linguistic contexts (Au & Mason, 1981; Gee, 1989; Heath, 1983; Mehan, 1979; Philips, 1972; Wertsch, 1984).
4. Reading is a complex task that involves the interaction of many cognitive, perceptual, linguistic and social skills, concepts and strategies (Goodman, 1982a,b).
5. Readers need to actively construct meaning from written text through the deliberate use of multiple, recursive strategies related to their own prior knowledge (Goodman, 1982a,b).

Summary

In summary, this study provides an analysis of the nature of teacher-student interactions when students read a text in one-to-one literacy tutoring sessions in order to describe the nature of these interactions, and how these interactions afford students opportunities to further their reading abilities. The study was limited to student reading experiences observed during the literacy tutoring sessions.

Chapter 2: Review of the Literature

Introduction

In this chapter, I discuss the relevant tenets in the areas of the sociocultural nature of learning, the sociocultural dimensions of classroom interactions, the instructional communication during oral reading, and the current perspectives of the reading process. All of the literature to be reviewed provides the theoretical assumptions underlying this study.

Sociocultural Nature of Learning

According to Wertsch (1985), Vygotsky (1978) maintained that in order to understand cognitive development, it is necessary to understand change at a sociocultural level which involves examining how the human mind has evolved. Vygotsky examined how lower mental functions, which consists of such things as basic memory, attention, perception that are produced by biological development, become transformed into higher mental functions. Although humans differ very little from higher primates at this stage of development, unlike apes, humans are also affected by cultural and historical development because we exist within a social world. We have psychological tools such as language and sign systems available to us that enable us to reach a higher ground intellectually. With the aid of these tools, lower mental functions are transformed to higher processes.

Vygotsky's explanation of how the human mind has developed (a sociocultural domain) is similar to his understanding of cognitive development at the level of the

individual (Wertsch, 1985). Vygotsky argued that at this level, cognitive development is affected by two forces: the natural maturation of an individual's brain and the individual's environment or immediate culture (Wertsch, 1985). In other words, Vygotsky attributed a large role to "others" in affecting the course of a child's development.

Within this sociocultural framework, it is assumed that learning is not a passive reception of knowledge but rather it involves a reconstruction by the learner of concepts and systems originally constructed for social purposes (Vygotsky, 1978). This reconstruction usually takes place with the assistance of someone who is already competent in the use of the systems. The expert's goal is not primarily to transfer a fixed amount of information to the novice, but rather to help the novice discern the nature of certain processes and procedures, which are socially, culturally, and historically situated and constructed to serve a particular purpose. For example, learning to read in this framework is not solely identifying words or letter-sound correspondences. Learning to read is understanding how a socially-constructed system of symbols creates meaning among people of a similar culture. The mechanism for understanding this social construct usually includes a guide, someone who is more competent than the learner. The learner must construct the understanding, but the construction can be greatly assisted by the guide.

The Zone of Proximal Development

In order to understand how this social interaction occurs, Vygotsky (1978) suggested the concept of the zone of proximal development (ZPD). The concept

expresses the significance of communicative interactions between adults and children that are basic to the extension of learning in children. Vygotsky theorized that there are two levels that are important to consider in a learner's performance. First, the "actual developmental level," the level at which a child can perform a task or solve a problem independently, and second, the "potential developmental level," the level at which a child can perform a task or solve a problem with assistance. The distance between these two levels is the zone of proximal development.

Vygotsky believed that children learn best when attempting to learn within this zone and therefore, the most effective instruction is one aimed at the zone of proximal development. He believed children learn little by performing tasks that they can already do independently or attempting tasks that are too difficult, and "what the child is able to do in collaboration today he will be able to do independently tomorrow" (Vygotsky, 1987, p. 211).

Tharp and Gallimore (1988) have conceptualized the zone of proximal development as a series of stages that a child moves through on the way to independence.

Tharp and Gallimore describe the stages as follows:

- Stage 1: Performance is assisted by more capable others. Child's partial performance provokes adult assistance. This stage is transited when the responsibility for the task performance is handed over to the child.
- Stage 2: Performance is assisted by self - the child carries out the task him or herself. A hallmark of this stage is self-directed speech which may be

used by the child to assist him or herself. This stage is completed when speech is internalized.

Stage 3: At this stage, performance is developed, automatized and “fossilized”. Assistance from others is disruptive.

Stage 4: De-automatization of performance and recursion. A new wrinkle sends the child back through zone of proximal development for assistance, either from others or self.

Several important points related to the nature of teacher-student interactions can be inferred from the concept of zone of proximal development. First, the teacher’s role is active and critical to learning. If the child’s only real learning occurs within the zone of proximal development, then the teacher must be able to determine the child’s zone of proximal development and guide the student to new concepts. Second, if learning begins as a social process, and then later becomes internalized, the child should participate in socially-meaningful tasks. Third, the learner’s role is also active. The learner is not a passive observer but actively engaged whether independently or with the support of the teacher.

One of the critical decisions a teacher has to make is determining the child’s interests, and placing the child in reading materials at a difficulty level that allows for optimum progress. To make this decision, the teacher typically seeks to determine the child’s instructional reading level using an informal reading inventory. The instructional reading level involves a child’s reading placement in reading materials more difficult than

independent level material (Betts, 1957).

Scaffolding

Cognitive processes occur first on a social plane where external knowledge and abilities are shared by a child and a more capable other, and these shared processes are internalized by the child and transformed to form the individual plane (Vygotsky, 1978; Wertsch, 1984). The zone of proximal development describes a “dynamic region of sensitivity to learning” (Wertsch, 1991) - the difference between what the child can do independently and what the child can do with assistance. Children are able to participate in activities that they are not capable of doing on their own, and gradually they increase their responsibility for the task as they move through the zone of proximal development (Cole, 1985).

Wood, Bruner, and Ross in 1976 introduced the term “scaffolding” which has been adopted by educators to describe the process of guiding students in the zone of proximal development. According to Wood, Bruner, and Ross (1976), scaffolding is a process by which adults assist children “to solve a problem, carry on a task, or achieve a goal which would be beyond the child’s unassisted efforts” (p. 90). The analogy of a scaffold is a useful one because it describes the process by which teacher and child interact as the child moves toward independence. A worker would construct a scaffold to help him reach an area of a building, for instance, that could otherwise be out of his reach, but it is temporary and would be taken down once the work is finished.

Parents seem to intuitively know how to scaffold their children’s efforts to take on

an oral language. Mothers, for example, shift what they accept as language from their babies, raising the ante from burps to coos, as their children's attempts become more like speaking (Cazden, 1983).

In terms of literacy learning, the teacher is responsible for constructing the scaffold to support the child. It is a temporary means of support and is removed when it is no longer needed. Perhaps most important, a scaffold is not used when there is no need for assistance, just as one would normally not see a worker using a scaffold to work on easily to reach areas.

Tharp and Gallimore (1988) noted that, "(T)eaching consists of assisting performance through the Zone of Proximal Development. Teaching can be said to occur when assistance is offered at points in the ZPD at which performance requires assistance" (p. 31). The teacher must also know the task well and understand the learner's reasoning in a particular situation (Wood, Bruner, & Ross, 1976). The tasks of scaffolding will thus be very different for children at different places in their learning. No one prescribed sequence will serve to support all children.

Research suggests that the type of assistance provided to a child is critical in order to scaffold development. Wood and Middleton (1975), in a study of mothers helping their children build a pyramid of blocks, found that the quantity of instruction had no effect on a child's learning. A child whose mother intervened only 10 times, was more successful than a child whose mother intervened 78 times. It is not just a matter of intervention that makes a difference to learning, but the quality of the interaction. In

other words, the critical feature of assisted learning is not the amount of help given, but the kind of help and when it is offered. Studies such as Wood and Middleton's not only inform educators about the nature of scaffolding, but also on how to scaffold a child through a zone of proximal development.

In a study of 5 teachers and 10 students over 25 lessons as the children read familiar and new books in a literacy tutoring program, Wong, Groth & O'Flahavan (1994) identified five types of scaffolding comments made by the teacher: discussing, telling, coaching, prompting and modeling. More important, the authors found that the teachers varied their scaffolding comments as a function of the text familiarity. When the reading became more difficult, the teachers increased their prompting and discussion comments to provide more assistance to the child as needed.

Sociocultural Dimensions of Classroom Interactions

Teacher-student interactions cannot be isolated from the linguistic and cultural contexts in which they exist (Wertsch, 1984). Wertsch suggested that the teacher and student can function in the same "spatiotemporal context" and yet understand the context in quite different ways. The language, both verbal and nonverbal, used in instruction by the teacher and required of the student, and the structure of the lesson format are all culturally-based, reflecting beliefs and customs that must be considered in describing teacher-student interactions. One theorist who describes sociolinguistic and sociocultural differences is James Gee (1989).

Discourses

Gee (1989) used the term Discourse with a capital “D” to describe a set of language structures, patterns, and vocabulary used by a group of people. Discourse is not just a language but includes the broader customs, traditional values, and beliefs within which the language systems operate. In Gee’s view, we learn a primary Discourse from our families. We then learn various other secondary Discourses. Some secondary Discourses are learned with our primary Discourse speakers, such as, restaurant or church Discourses.

School Discourse is a secondary Discourse which is unlike the primary Discourse some students experience in their home lives. Children who come to school already with the Discourse of school may have an easier time participating in that environment. Those without the Discourse or for whom the primary Discourse is far removed from the school Discourse can be at a disadvantage.

There are many specific aspects of the school Discourse that are potential mismatches for uninitiated students. Some of the instructional conversational exchanges between teachers and students that can be fundamentally different from some of the students’ primary Discourse have been identified through sociolinguistic research.

Classroom Discourse

Classroom Discourse includes many interactions between adults and children. These interactions operate according to certain rules, rules which reflect the beliefs and customs of the institution of school itself and of the teacher to some extent. The most

common pattern of classroom Discourse is the three-part sequence of “teacher initiates, student responds, teacher evaluates,” called I-R-E (Mehan, 1979). This pattern describes a procedure in which the teacher’s initiation is usually in the form of a question which has one or a limited number of right answers which the teacher already knows, and the student provides those answers as a way of demonstrating his or her knowledge. The teacher makes judgments from these interactions about the student’s understanding of concepts and skills. In I-R-E exchanges, it is assumed that students know the rules of the interaction pattern, therefore, students who are unfamiliar with that Discourse pattern can be at a disadvantage.

Heath (1983) described the experiences of children from two different lower-economic communities, and how language was used differently in these two communities which affected the children’s later achievement in school. In one community, the children were only asked questions when the adult questioners needed to know the answers. The adults were not evaluating the children’s understanding or memory for something. The communication pattern was more like a conversation between peers. In the other community, children were asked to “recite” details of events already known to the adults with the purpose of demonstrating their knowledge. Those children who were frequently asked to recite at home were, at least in the early years of schooling, quite comfortable in the local schools in which recitation was a common way of assessing knowledge and made satisfactory progress. The children who were not asked to recite at home were confused about the school Discourse and were generally not as successful as

their peers who were asked to recite at home.

Participation Structure

The participation structure in school varies from classroom to classroom, but only in minor details (Cazden, 2001). In a typical classroom, someone, usually the teacher will call on students to answer questions or perform individually in front of a group of peers, and the teacher comments at the end. There are usually rules for this performance, generally, “raise your hand and wait to be called on.” This turn-taking behavior for getting the floor is complicated for some students and must be learned by them when entering school.

Au and Mason (1981) in an oft-quoted study, noted that Hawaiian children responded better to certain kinds of interaction patterns. They preferred to answer questions chorally, two or more children collaborating, rather than individually. When children were singled out, they were reluctant to answer, especially when their answers were evaluated by the teacher. When these cultural patterns were understood and respected by the teachers in the classroom, the children were more responsive.

Philips (1972) reported that Native-American children in the Warm Springs Reservation were less likely to participate in classroom verbal interactions such as, asking and answering questions than their non-Native peers, because the social conditions for participation to which they have become accustomed in the Indian community were lacking. The Native-American children learned skills in their community by first observing others and then participating with skilled peers or adults. Typically, there were

few verbal directions; and the “instruction” occurred one-on-one. Larger group gatherings were less structured than the traditional classroom and had no fixed leadership. The Warm Springs children had difficulty participating in large group instruction where the teacher made all the decisions and controlled the communications. Classrooms in which the children worked independently and had private conversations with the teacher or in which the children worked on small projects produced more participation than teacher-led group instruction.

Teacher-Student Interactions Between Discourses

Wilkinson (1980) stated that teachers play the primary role in facilitating communication, and children need to be scaffolded into new Discourse by sensitive adults who speak the Discourse. But how to do this, especially when the teacher and students come from different primary Discourse is the issue. Farr (1991) suggested, “(T)he most important principle of effective instruction for non mainstream students is that of ethnosensitivity. It is crucial that teachers understand their own views of the world, or ways of using language in that world, are not necessarily shared by others” (p. 368). In other words, teachers must understand those learning environments have their own Discourses. The beliefs, values, behaviors, and language use accepted in these settings are affected by a whole series of cultural and political systems and by the teacher’s own primary and secondary Discourses.

In addition to a classroom Discourse, literacy learning is itself “mastery of or fluent control over a secondary Discourse” (Gee, 1989, p. 7). Literacy learning is not the

simple learning of certain skills and concepts, but involves ways of thinking, believing, and valuing. In order for some children to be successful in school, they must be scaffolded into this Discourse. It is possible to organize classrooms so that bridges are provided to the cultures and social values that students bring to school, and students are capable of learning new social contexts and linguistic genres if the contexts are dynamic ones and students are invited to participate (Goodman & Goodman, 1990).

Instructional Communication During Oral Reading

In an instructional context, oral reading takes the form of a dialogue between teacher and student. These verbal and nonverbal interactions typically arise from the student seeking assistance and the teacher's efforts to give feedback to students about their miscues. According to Hoffman & Baker (1980), the interaction that occurs between teacher and student during oral reading instruction can best be understood in terms of an information exchange across a communication channel: "the reader recodes print to speech (transmit a signal) while the teacher monitors the signal (receives messages) and provides feedback accordingly" (p. 5).

Kulhavy (1977) cited in Hoffman (1979) and Hoffman & Baker (1980) has proposed that feedback aims at two main goals in learning. First, it provides students with continuous information on how accurate they are performing a task, and secondly, it allows them to engage in corrective activity by telling them when errors occur. In terms of accuracy, two things can occur when students read orally: (1) they can confirm our expectations by responding with the expected responses, or (2) they can miscue, that is, a

response which deviates from our expectations, and this second category would also include those instances in which the observed response is no response (e.g., the student stops reading at a difficult word and asks for assistance).

How and when to respond to miscues varies considerably. This is dependent on teachers' implicit rules for feedback, and there appears to be at least three identifiable dimensions to these rules as they relate to oral reading: selectivity, timing and form (Hoffman, 1979; Hoffman & Baker, 1980).

Selectivity of Feedback

How selective teachers' feedback strategies are may range from an absolute criterion level where each and every deviation is given a response to a highly selective level where a decision to intervene is based on a consideration of complex situational variables (Hoffman, 1979; Hoffman & Baker, 1980). Hoffman also noted that "when one adopts a uni-dimensional mechanism of ...if deviation the response..., one reflects a notion that reading is an all or nothing mastery task rather than a progressive movement toward proficiency" (p. 344). A response mechanism geared toward the notion of reading as a progressive movement toward proficiency would likely identify and attempt to build on how well the reader is performing relative to his or her own needs (Hoffman, 1979; Hoffman & Baker, 1980).

Timing of Feedback

After the decision to respond which is only a first step, the teacher must consider the time frame in which feedback is offered. Feedback can be given immediately or it can

be delayed for some time, for example, after the student has finished a sentence or paragraph (Hoffman, 1979; Hoffman & Baker, 1980).

Kulhavy (1977) cited in Hoffman (1979) and Hoffman & Baker (1980) explained that when an error is made by a student and the student receives feedback immediately, the chances of interference between correct and incorrect responses are high, simply because the item stems are identical and the response antagonistic. However, when there is a delay between error and feedback, incorrect responses are forgotten and the likelihood of the correct response being remembered is greater. Kulhavy & Anderson (1972) also cited in Hoffman (1979) and Hoffman & Baker (1980), stated that as wait-time is increased in oral reading, accuracy should be affected positively through an increased opportunity for self-correction.

Form of Feedback

The form of feedback provided by teachers to oral reading miscues typically range from a simple “no” to the presentation of substantial corrective information in the form of prompts (Hoffman, 1979; Hoffman & Baker, 1980). The authors cited Anderson, Brophy, and Everton (1977) who offered insights into the effects of various forms of prompting. Anderson, Brophy, and Everton (1977) classified prompting strategies into two general types: terminal and sustaining. Terminal prompts include actions such as the teacher giving the appropriate response or asking another student to supply the response. Sustaining prompts include teacher actions which call for the student to try alternatives based on closer examination of graphic, syntactic or semantic cues.

The Anderson et al. (1977) study was designed to investigate the effects of these two different forms of teacher feedback as related to residual gain-scores in reading achievement over a one year period. They found that terminal prompts (supplying the correct response) was negatively related to learning, and sustaining prompts (clues or helping with simple questions) was positively related to gains.

In summary, what we observe when a teacher interacts with students during oral reading is not haphazard or random behavior, but a manifestation of a set of implicit rules that the teacher has devised. These rules are likely to have certain dimensions which roughly correspond to those characterized in this discussion as selectivity, timing and form of feedback.

Current Perspectives of the Reading Process

A current widely held view of the reading process is one that views the reader as an active participant in the process. The reader is seen as bringing both background knowledge and knowledge of the language to the text in an effort to construct meaning. As reading takes place, readers predict what they will read, sample the text, infer meaning, confirm meaning from context, and then integrate the new information from the reading with past knowledge (Goodman, 1982a).

There is a great deal of debate over whether to teach reading as a holistic process or as integrated subskills (Pinnell et al, 1994). Regardless of which approach one takes to reading instruction, everyone seems to agree that beginning readers need to learn to decode (Pinnell et al, 1994). According to Samuels (1988), the debate is not over

whether decoding should be taught but on what size unit should beginning readers be taught. Should beginning readers start with smaller units such as letters and sounds, or should it start with the larger units such as whole words or sentences or concepts?

Comprehension Strategies

There is strong agreement in the literature that learning to read is not simply learning sound-symbol correspondences or memorizing sight words, but is a complicated process requiring the integration of many cueing systems. Readers use a mixture of semantic, syntactic, and graphophonic information while reading (Goodman, 1982a,b). It is important that young readers learn to tap all these sources in reading and comprehending text.

Readers need to actively construct meaning from written text through the deliberate use of multiple, recursive strategies related to their own prior knowledge. The reader must take control of the process, expecting and actively seeking meaning, monitoring reading for meaning, and using a variety of strategies to repair any breakdown in meaning. Pearson and Johnson (1978) stated, “(C)omprehension is building bridges between the new and the known. It is active, not passive. A reader cannot help but interpret what he reads” (p. 24). Skilled readers draw on prior knowledge. Proficient readers are flexible, using whatever strategies that are needed for the situation: changing rate, rereading, reading on, questioning, predicting, comparing, making analogies, agreeing/disagreeing, adopting/rejecting, etc. In other words, proficient readers interact with the text and approach it as a communication between themselves and the author.

It is not enough to want to read or to be able to decode words; the reader must understand the importance of communication and must develop strategies for obtaining meaning. Having the background knowledge and vocabulary to understand a text is important, but the reader must also understand the need for using prior knowledge and have the ability to use prior knowledge to construct meaning.

Meta-cognition

Because current perspectives of reading comprehension portray readers as active learners who direct their own cognitive resources to learn from text, bodies of research investigating learners' knowledge and use of cognitive resources have been very appealing to reading researchers (Garner, 1987). According to Garner (1987), the work of developmental psychologists in the area of meta-cognition has been particularly helpful. This work has prompted reading researchers to examine readers' knowledge of the reading process, monitoring of their comprehension, and the use of a variety of strategies. Flavell (1976) stated, "(M)eta-cognition refers to one's knowledge concerning one's own cognitive process and products or anything related to them" (p. 232).

The ability to evaluate one's own cognitive process is a particularly desirable outcome as individuals with strong meta-cognitive abilities are able to learn efficiently (Gaskins & Elliot, 1991). Brown, Campione, & Day (1981) noted that students must learn about their own cognitive characteristics, their available learning strategies, and must be able to select and adjust the necessary strategies needed to learn in order to become flexible and effective learners.

Summary of Research Framework

This review of the literature describes the guiding framework of my study.

Learning is defined as a socially-constructed activity in which the teacher and student are both active participants. Scaffolding is a useful construct for understanding the nature of the teacher-student relationship in an instructional setting. Language and cultural differences might impact on teacher-student interactions, and thus might inhibit the development of literacy learning. Instructional communication during oral reading is dependent on a set of implicit rules for feedback that the teacher has devised. Current perspectives of the reading process portray readers as active participants in the process who direct their own cognitive resources to learn from text. It is within this framework that I studied the teacher-student interactions during reading in a literacy tutoring program.

Chapter 3: Methodology

Introduction

The purpose of this study was to describe teacher-student interactions during reading in one-to-one literacy tutoring sessions, and relate these interactions to students' literacy learning. In this chapter, I describe the research design, the data collection procedures, and the process used in analyzing the data. I also describe the site and participants involved in the study.

Marshall and Rossman (1995) suggested that when the purpose of the study is to describe a phenomenon of interest and when the research questions involve describing the “salient behaviors, events, beliefs, attitudes, structures, processes occurring in the phenomenon” (p. 41), the qualitative case study approach is a useful research strategy. My research questions were largely descriptive which dictated a qualitative research design for the study. My intent was to create a case study (Merriam, 1988), a thick description of the particular events between a teacher and student during reading in literacy tutoring sessions. The goal was grounded theory, “discovery of new relationships, concepts and understandings, rather than verification of a predetermined hypothesis” (Merriam, 1988, p. 13).

I investigated the teacher-student interactions in a literacy tutoring program. The goal was to characterize the nature of the interactions between a teacher and student when the student read a text in a one-on-one setting.

I combined standard observation techniques (Bogdan & Biklen, 1992) with

techniques of micro ethnography as described by Erickson (1986). Observations and interviews of the participants were used with audio and videotaping in order to establish triangulations. The “machine recordings” according to Erickson (1986) offer these advantages:

1. The capacity for completeness of analysis.
2. The potential to reduce the dependence of the observer on primitive analytic typification. (Interpretations can be withheld until the data has been revisited several times.)
3. A reduction in the dependence of the observer on frequently occurring events as the best sources of data. The rare event can be studied quite thoroughly through repeated reviewing (p. 145).

The limitations of the machine recording, according to Erickson (1986), include lack of interactions for testing emerging theories and lack of context other than what is on the tape. These limitations were overcome by my first hand observations of the taped sessions and later informal interviews with the teacher about aspects of the lessons and the teacher’s perspectives on what happened in the sessions.

The inquiry in this study was situated within a theoretical framework that views learning as a sociocultural process. Wertsch (1991) noted that the goal of sociocultural research is to “...understand the relationship between human mental functioning on the one hand, and cultural, historical and instructional setting on the other” (p. 56).

According to Vygotsky (1978), “Every function in the child’s development appears twice

...first between people (inter psychological) and then inside the child (intra psychological)” (p. 57). The focus of this study was not solely on the “in-the-head” processing but also on the student’s interactions with their teachers because I assumed these interactions were related in a critical way to the students’ growing understanding about literacy.

I took as a given that others play a critical role in a child’s learning. This process is exemplified by the concept of a zone of proximal development which represents the difference between what a child can do assisted and what he or she can potentially do independently with ease. These assumptions about learning guided my data collection not only on the students’ changing reading strategies but also on their interactions with the teacher as they read a text.

Data Collection

I observed a teacher working with one group of students in a literacy tutoring program for nine weeks during an academic semester. Data were collected from the following sources: lesson records, interviews of the participants, field notes, and audio and video tapes of tutoring sessions. The lesson records included the teacher’s lesson plans and observational notes, and reading materials that were used in the sessions.

Participant Observation

Glesne and Peshkin (1992) described the main outcome of participation observation as an understanding of the research setting and its participants. Participant observation occurs along a continuum, from mostly participant to mostly observer

(Glesne & Peshkin, 1992; Singleton & Straits, 1999). At one extreme of the continuum is the full participant who takes part in the research setting much like one of the members of the setting; at the other is the observer who has no role to play in the setting.

The context of my study meant that my role fell further on the continuum as observer than participant. In order to observe the interactions between teacher and student, I could not take part in the teaching. I did not participate as a collaborator with the teacher in designing teaching activities. However, I was not strictly an observer and the participants were aware of my presence. In addition, I had informal conversations with the teacher about the students and their lessons after the tutoring sessions. Because I was neither full participant nor complete observer, my role could be referred to as that of a participant observer in this study.

I observed four tutoring sessions every week for nine weeks during the course of an academic semester. I audio taped and videotaped seven of the nine weeks of tutoring sessions and this yielded data from twenty-eight sessions for the semester. The first week of my observations was devoted to interviewing the teacher and the students, and on collecting data for the pre Reading Miscue Analysis. The ninth week was devoted to collecting data for the post Reading Miscue Analysis.

Interviews

During the first week of the data collection, I interviewed the teacher about her background, training, and beliefs on the reading process and reading instruction using an adaptation of the Teacher Belief Interview Protocol (Richardson, Anders, Tidwell, &

Lloyd, 1991; see Appendix A). I also interviewed each student using an adaptation of the Reading Interview (Goodman, Watson, & Burke, 1987; see Appendix B). These interviews helped me to understand the teacher's instructional practices, and the students' views about reading.

On some of my visits to the tutoring sessions, I had informal conversations with the teacher after the session. The conversations were generally open-ended with no prepared questions. The purpose was to hear the teacher's perspective on the children's learning and also to understand more about the teacher's decision-making during the tutoring sessions.

Taped Sessions

The lessons of the 40-minute tutoring sessions were organized within the same three different components. The first component of the lesson involved the teacher reading a book or a portion of it to the students, and the students reading to the group. The second component involved writing activities. The third involved the teacher introducing a new book to the students, the students taking turns reading to the teacher, and when one student is reading with the teacher, the rest of the group engages in independent reading. Table 1 shows the activities of the lesson and the approximate time spent in each component of the lesson. The time allotments are approximations made by the researcher and were not rigidly adhered to by the teacher.

Table 1: Components of the Lesson

Phase	Activity	Approximate Time
1	Reading familiar books	10 minutes
2	Writing	10 minutes
3	Introducing a new book/Reading a new book with teacher	20 minutes

My data collection was focused on the third component of the lesson in which the teacher introduced a new book to the students and the students attempted to read it as independently as possible. During this phase of the lesson, I always placed the audiotape recorder between the teacher and the student reading to the teacher, and also focused the video camera on them. This component of the lesson which usually lasted about 20 minutes, always occurred at the end of the sessions. The purpose of this study was to characterize the interaction between a teacher and student as the teacher helped the student develop literacy concepts and strategies, and that was the rationale for my focus on the third component of the lesson.

Reading Miscue Inventory (RMI)

The Reading Miscue Inventory (RMI) (Goodman, Watson, & Burke, 1987) was

selected as an instrument to analyze the oral reading of each student at the beginning and at the end of the study, using the Miscue Analysis Procedure I. It was necessary to select Procedure I because it is a detailed version of miscue analysis and provides an in-depth look at the reader's use of language cues and reading strategies. Goodman, Watson, & Burke (1987) stated that,

(P)rocedure I examines separately each miscue the reader makes, while simultaneously evaluating the influence of the reader's knowledge of the world and language in relation to the context of the miscue. It also examines the reader's use and control of the language systems and reading strategies while reading orally... (B)ecause of its potential for in-depth investigation, this procedure is recommended for researchers, reading specialists, and special education teachers concerned with developing in-depth knowledge about their student's reading. (p. 75)

In this analytical and descriptive instrument, miscues in oral reading are held to be incidents in which the thought and language of the reader and writer interact, and the observed response from the reader does not match the expected response. Analysis of miscues, or unexpected responses to text, helps to show how the reader is comprehending as he or she reads. It is when a reader produces unexpected responses to text that we obtain insights into what he or she is doing during reading, rather than when the reader produces what we expect to hear, since, it is impossible in this occurrence to say how he or she did it. Goodman (1967) noted that a reader's "...expected responses mask the

process of their attainment, but his unexpected responses have been achieved through the same process, albeit less successfully applied. The ways that they deviate from the expected reveal this process.” (p. 127)

The reading selections used for miscue analysis were selected on the basis that they were unfamiliar to the students. The selections were one grade above each student’s assigned reading level. The students were assigned reading levels by their classroom teachers based on their evaluation of the students’ reading abilities. Each student was informed that he or she would be asked to read orally without any help from the researcher. Then the students were told they would be requested to retell the stories in their own words.

Miscue Analysis Texts

The reading materials for the miscue analysis were selected from the Qualitative Reading Inventory - II (Leslie & Caldwell, 1995). The Qualitative Reading Inventory - II (QRI-II) contains narrative and expository texts at each pre-primer through junior-high level. All are self-contained selections that are highly representative of the structure and topic of materials found in basal readers and content-area textbooks (Leslie & Caldwell, 1995).

Goodman, Watson, & Burke (1987) suggested that while the materials selected for miscue analysis should be unfamiliar and unpracticed, it must include concepts that are known to the readers and written in language that supports readers in their understanding of new information. The topics of the narratives in the QRI-II are generally familiar

including biographies of famous people, and the expository texts are taken from published science and social studies textbooks. The narratives for the pre-primer through second grade level are presented with and without pictures.

According to the authors, the QRI-II selections were designed to provide a variety of different opportunities to observe a student's reading behavior. The selections can be used to estimate reading levels or to compile a profile of a student's reading ability.

The length of the passages in the QRI-II varies between 175 and 350 words. Each student read two related selections with a combined word count of about 500 for each miscue analysis, and read different selections for the pre and post analysis. The decision to have the students read two selections at a time was based on the suggestion by Goodman, Watson, & Burke (1987) that the length of the materials used for miscue analysis should rarely be shorter than 500 words because studies have indicated that the quality of miscues changes after the reader has passed the first 200 words of a text.

A specifically prepared transcript of the texts was used to record each reader's miscues. The first complete observed response was selected for coding. As the miscues were selected for coding, they were also numbered. A list of events and facts of each selection was prepared to record the retelling. An audiotape recorder was used to record each student's reading and retelling sessions and was used to verify the miscues and retelling recorded on the transcript. Each session lasted from thirty to forty-five minutes. The miscue analysis helped me to create a very complete profile of each student as a reader and gave me an insight into the strategies each student was able to use at different

points in time.

Lesson Records

I photocopied all the session records for all the children in this study. The records that were photocopied included the teacher's lesson plans for that day and materials used. It also included the teacher's observational notes of each child's oral reading when he or she read a new book.

The teacher's planning book contained information about the books that each student read for that day, comments on how difficult the new texts were for the students, and some anecdotal comments such as, "need to get tougher with Terri to stop waiting for my help". It also contained a record of each student's reading behavior when the student read a text to the teacher that day. These included words omitted, inserted, substituted, and miscues that the student self-corrected or which the student could not correct on his or her own.

Reading Materials

The books used in the literacy tutoring sessions observed in this study were little books that had been color-coded to represent levels of difficulty corresponding to Grade levels 1 to 5. These levels were determined by the program based on the amount of picture support provided, whether a pattern existed and how predictable the pattern was, and how familiar the vocabulary was. The teacher used these levels as a rough guide to help her decide on appropriate texts for the students, and her task was to find a text that would provide some challenge, but would not be so challenging as to be defeating for the

students (conversation with teacher, 4/30).

The teacher chose the books for the students in advance, but sometimes she changed them during the sessions based on her observations that particular day. The teacher's choice of reading materials was constrained by the fact that she had to work within the confines of materials provided by the program.

Data Analysis

The overall purpose of my data analysis was to accurately describe the patterns of interactions between teacher and student during the one-to-one literacy tutoring sessions when a student read a text, and identify the student's reading strategies. To this end, I conducted different levels of data analysis. In this section, I describe the different levels of my data analysis.

First Level: Developing Categories

The first step in data analysis is to organize the data and identify patterns (Singleton & Straits, 1999). In order to do this, I listened to the audiotapes of the sessions several times and transcribed the third component of the lessons which was the one-to-one reading portions of the tutoring session. I used the videotape recordings, the lesson records, and my field notes to add notes to the transcripts detailing nonverbal interactions, to clarify the events or add information when necessary. I then examined the transcripts looking for emerging categories of phenomena during this one-to-one reading phase of the sessions and for relationships among such categories.

My interest was in identifying and documenting moment by moment interactions

between teacher and student while the student was reading a text. Therefore, when I was examining the transcripts I was looking for cycles of interaction between teacher and student. I found that a student's reading of a text was characterized by accurate reading, independent problem solving, and moments of interactions with the teacher to solve a problem. The transcripts were coded for:

1. Accurate reading.
2. Independent problem solving by student.
3. Problem solving with teacher's assistance.

I also found that the moments of interactions between teacher and student usually occurred around points of difficulty when a student was not able to proceed with his or her reading of a text and sought the teacher's help, or when a student miscued, did not self-correct and the teacher brought it to his or her attention. These interactions emerged as verbal and/or nonverbal communication between the teacher and child with the particular purpose of solving a problem.

These periods of interacting were similar to Sinclair and Coulthard's "exchanges" (Sinclair & Coulthard, 1975, p. 49). According to Sinclair and Coulthard, an exchange is a unit of interaction between teacher and student, the most common type consisting of an initiation by the teacher, a response by the student, followed by feedback from the teacher.

These exchanges follow the I-R-E- pattern (Mehan, 1979) discussed earlier in the literature review section. The notion of analyzing classroom discussion according to

turns and teacher-student roles presented by Mehan (1979) formed the underpinnings for the analysis of teacher-student interaction in this study. Table 2 is an example of a cycle of interaction.

Table 2: An Example of a Cycle of Interaction

		<i>Text</i>
Student:	Snug and took (looks at teacher)	<i>Snug and tight he sits</i>
Teacher:	tight	<i>watching the underseas</i>
Student:	Snug and tight he sits watching the (stops, covers "under" with finger, and says to teacher, "this is sea")	<i>world pass by.</i>
Teacher:	Good	
Student:	watching under the sea	
Teacher:	Check to make sure you're right	
Student:	watching the undersea world pass by	
Teacher:	Good. I'm glad you decided to check	
Student:	(continues to read)	

In this example, the student was reading accurately until he came to a place in the text where he was experiencing some difficulty. This is an example of what I call

“a point of difficulty”. The interaction began when the student stopped reading and looked at the teacher (nonverbal communication) after making a miscue “took”, and the teacher responded by providing the right word “tight”. The interaction continued until the teacher said “I’m glad you decided to check”. After the teacher’s remark the student continued to read, marking the end of this particular cycle of interaction.

Another category that emerged from the interaction was the teacher and student “actions”. These were the turns that the teacher and student took during a cycle of interaction. These “actions” were the units that made up an interaction between teacher and student, and refers to each contribution made by the teacher or student in the cycle of interaction.

After organizing the data around the concepts of cycles of interactions and actions, I developed categories to describe the data contained in the interactions. My task was to create categories that would make sense of the teacher-student interactions and identify the roles of both. A category was created to describe each of the teacher and student actions within the interactions. The next step in my data analysis was to examine the descriptions of the interactions provided by the categories and to quantify the categories of teacher and students’ actions as they emerged. I coded the student actions in five ways: self-correcting (SC), sounding out (SO), rereading (RR), skipping (SK) and multiple cues (MC). There were nine categories that emerged for the teacher’s actions: no response (N), approving (A), directing (D), questioning (Q), praising (P), reinforcing (R), telling (T), modeling (M), and combining (C) actions. Developing these categories,

coding and counting the teacher and student actions assisted me in conducting a content analysis of the data in order to respond to my research questions.

Second Level: Describing Changes in Reading Strategies

In order to describe the changes in the students' reading strategies over the course of the study, I examined the number of interactions that occurred between the teacher and each student during the reading of a text by the student at the beginning of the study (week 2) and at the end of the study period (week 8). I also examined the student's actions while problem-solving independently at points of difficulty (a point when a student was not able to proceed with his or her reading of a text) and compared that to their actions at points of difficulty where the teacher's involvement was active. Finally, I analyzed their miscues collected with the Reading Miscue Inventory (RMI) at the beginning (week 1) and at the end of the study (week 9), and compared their reading profiles at these points in time.

Miscue Analysis Procedure I

The pre and post reading miscues collected were analyzed from both a quantitative and qualitative point of view. The quantitative calculations involved the total miscues per reading, miscues per 100 words, and percent of miscues per miscue types. The qualitative analysis consisted of analyzing each miscue according to 6 linguistic categories of the RMI (Goodman, Watson, & Burke, 1987). These categories are as follows:

1. Syntactic Acceptability: Does the miscue occur in a structure which is syntactically acceptable in the reader's dialect?
2. Semantic Acceptability: Does the miscue occur in a structure which is semantically acceptable in the reader's dialect?
3. Meaning Change: Does the miscue result in a change of meaning?
4. Correction: Is the miscue corrected?
5. Graphic Similarity: How much does the miscue look like what was expected?
6. Sound Similarity: How much does the miscue sound like what was expected?

After each miscue was listed on the coding form and analyzed for each of the six categories, the categories which determine semantic acceptability, meaning change, and correction were interrelated to produce patterns for constructing meaning. This pattern was used to give insight into whether there had been a meaning loss or not. The categories which determine syntactic acceptability, semantic acceptability, and correction were also interrelated in order to produce patterns of grammatical relationship.

Next, a retelling score was calculated based on the reader's retelling of the story. The point distribution from the retelling was based on the suggested point system for story material found in the RMI. All information from the Miscue Analysis Procedure I coding form was tallied and percentages that showed patterns for meaning construction, grammatical relationships, graphic and sound relations were transferred to the Procedure I

Reader Profile for each student. The retelling score was also transferred from the retelling guide to the Reader Profile form. While the miscue provides insights into how the reader is comprehending during reading, the retelling provides insights about how the reader has comprehended (Goodman, Watson, & Burke, 1987). By comparing the reader's use of language cueing systems and reading strategies, and the retelling of the story, the reader's proficiency was categorized using terms provided in the RMI as proficient, moderately proficient and non-proficient.

Goodman, Watson, and Burke (1987) noted that, "(T)he Procedure I Reader Profile provides a single form for the most important information from a miscue analysis..." (p. 102). Therefore, the reader profile of each student was used to explore the third research question regarding any change in the student's reading strategies over the course of the study.

Setting and Participants

This study was conducted in a public elementary school. The school-site and tutoring program for the study was not chosen for any specific reason. In fact, I was looking for a literacy program in the city I lived in, and therefore, this program seemed appropriate and convenient. The school district had a literacy tutoring program for students in need of special help in learning to read and write.

The School-Site

The school-site was located in a predominantly low to lower middle socio-economic status urban community in the southwestern U.S. The school consisted of four

main buildings and two adjacent classroom wings separated from the main buildings by a patio area. Approximately 650 students spread across a number of first, second, third, fourth and fifth grade classes attended the school. The student population was approximately 94 percent Hispanic, 2 percent Anglo, 1 percent Native-American and 1 percent African-American. The majority of the students (about 80 percent) were English language learners who spoke other languages (mainly Spanish) as their first language. The remaining 20 percent of the student population spoke only English.

The tutoring sessions were held in a small room that was referred to as the resource room. It was located down the hall in the middle building that housed the fourth grade classrooms. The teacher taught her small group of students in the center of the room using a round table. There were tables placed at opposite ends of the room with many reading materials arranged in plastic containers by reading levels. They were arranged in ways that made them easily accessible. There were charts posted on the walls listing reading strategies such as, "GO BACK AND RE-READ, THINK ABOUT STORY, GET OUR MOUTH READY", and teacher prompts such as, "I noticed you went back, did it help you? and It could be, but look at ...?", for teacher to use to encourage independent problem solving.

Nothing about the setting was altered in order to conduct this study except the presence of the researcher and the recording equipments. I attempted to minimize the role played by my presence and that of the equipments by spending a week with the group before I started collecting data. The students got to be used to the recording equipments

and see themselves on video. The receptivity of the teacher and students to my presence allowed me to become a normal feature within the setting, presenting no obvious intrusion into the instructional setting.

The Program

The Literacy Assistance Program (LAP) was designed by the school district in the late 1980's as a response to the increased concerns about the growing number of students who were struggling with reading and writing, and the need to supplement regular classroom instruction for those students (personal communication with program coordinator, 4/2). The program coordinator also mentioned that in the late 1980's, the only tutoring program available to students in the school district was Reading Recovery, but due to the Reading Recovery age restrictions, children beyond the first grade were not eligible for participation in the program. The Literacy Assistance Program (LAP) was therefore intended to serve students in grades two and above.

According to the LAP's manual, the program was "developed and designed based on holistic learning theory which is the basis of the Whole Language philosophy". The program views the reading process as a complex nonlinear task that involves the use of language cues: graphophonic, syntactic, semantic and pragmatic. It was designed to provide students who had difficulties learning to read and write with the opportunity to make significant academic gains in the areas of reading and writing.

The tutoring program involved small group instruction that included all components of a balanced literacy program: Reading to and Writing for Children;

Reading and Writing with children; Reading and Writing by children. Each small group consisted of a teacher and four students, and meets for forty minute sessions three or four times a week during the academic semester. The tutors were trained teachers who have been trained to assess the children's needs and to provide them with rich reading and writing experiences necessary to develop competence, confidence and appreciation for the Language Arts. Several studies have found that programs that use expert tutors such as professional teachers showed greater gains than did programs using novice tutors such as peer tutoring, parent tutoring, or various volunteer models although these were all successful in helping the students (Cohen et al., 1982; Shanahan & Barr, 1995; Wasik & Slavin, 1993).

In their initial training, the tutors are introduced to the holistic philosophy of learning, language, reading and writing. They are also introduced to instructional teaching practices based on the holistic philosophy. The tutors receive ongoing training in the form of guest speakers with knowledge and expertise in early literacy development, monthly meeting with colleagues and on-site support from the program coordinator. Each tutor is assigned to tutor four groups of students at local elementary schools, and each group consists of four students.

The lessons of the tutoring sessions have three components: modeled (read aloud)/shared reading; modeled/shared/guided/independent writing; guided/independent reading. During the independent reading component students choose from a variety of children's literature provided by the program, and during the guided reading component

each student meets with the teacher for a one-on-one reading conference. The goal of this conference is for the teacher to listen to each student in order to collect information about the student's current use of language cues and reading strategies, and use the information to plan her instruction.

The Teacher

The teacher whom I would refer to as Katie, is female, Caucasian, and middle-aged. She has a Bachelor's degree in Elementary Education and is a certified teacher with twenty years experience teaching first and second grade (Teacher Belief Interview). At the time of this study, she had been with the tutoring program for four years. Although she was selected because she was the first in the program who responded positively to the program coordinator's note explaining my interest in conducting research in the program, she proved to be a very cooperative and dedicated teacher who valued the opportunity to have a researcher present during her tutoring sessions.

Katie is interested in improving her teaching effectiveness and actively seeks new educational opportunities. She has participated in several specialized training workshops in literacy instruction which she believes has helped her improve as a teacher. She believes she did not learn much from her college education program and student teaching, and remembers her cooperating teacher using traditional phonics approach to teaching reading. In-service training, monthly meetings of program teachers, and visiting and observing other teachers have been the most helpful to her in her quest to improve her teaching effectiveness and efficiency.

Katie does not believe that struggling students should be looked at in terms of what they should be able to do at the beginning or end of a grade level, but in terms of what they can do. Katie believes that a teacher should ask herself, “What is the student doing that will help him become a better reader? What can be done to help the student improve on that?” The response to these questions should guide a teacher in planning to meet a student’s needs.

Katie believes that a well-trained teacher can help any poor reader to improve but also believes that many factors outside of the classroom contribute to a child becoming a successful reader. These factors include having books at home, being read to, seeing people in the household reading, and parental attitude toward education in general and reading in particular. She believes decoding the word in itself is not reading, but creative responses to the stories and showing understanding of a story are indications that the student is reading. She defines reading comprehension as students being able to retell a story either verbally or through posters or charts and being able to respond to questions relating to a story.

The Students

The students in this study constituted one of the four groups of students assigned to Katie in the Literacy Assistance Program (LAP) at the school-site. They were fourth and fifth grade students. Their classroom teachers identified the students to participate in the tutoring program based on their placement in the lowest 20-30 percent reading achievement within their classroom. The students were selected and assigned to the

tutoring program at the beginning of the academic semester, and they exit or stay in the program based on their performance as observed by both their classroom teachers and the LAP teacher at the end of the semester.

The students in this study spent all except one forty-minute period on Mondays, Tuesdays, Thursdays and Fridays in their regular classrooms with their classroom teachers. All the students in this group were in the program for the first time. Based on their classroom teachers' evaluations the students in this particular group were identified as reading at either first or second grade levels. In order to protect the students' privacy, I use pseudonyms and call them Terri, Mike, Flo and Bill. Terri, Mike and Bill were identified as reading at the second grade level, and Flo was identified as reading at the first grade level. Table 3 is a descriptive data for the students.

Table 3: Descriptive Data for the Students

Name	Sex	Age	Ethnicity	Grade	Reading Level
Terri	F	10	Hispanic	4 th	2 nd
Mike	M	10	Native-American	5 th	2 nd
Flo	F	10	African-American	4 th	1 st
Bill	M	10	Native-American	5 th	2 nd

TERRI

Terri was a talkative Hispanic girl who was bilingual, and described herself as “a bad reader” because she did not like to read (Reading Interview, 4/23). She saw reading and writing as somewhat painful features of school and so, did not like to do either of them. She only did them because she had to when in school. She viewed reading as “sounding out the words correctly”. She would help someone learn to read by teaching them how to “sound out the words”.

MIKE

Mike was a highly participatory, exuberant Native-American boy who thought he had trouble with long and unfamiliar words in reading (Reading Interview, 4/24). He wanted to be able to read faster. When asked what he would do to help someone having difficulty reading, he said he would tell them “to study the words and learn to say them correctly”. He felt his teachers were good readers because they read stories aloud and did not miss any word.

FLO

Flo was usually quiet, but eager to ask and answer questions without seeming to be concerned about how elementary her questions or responses might be. She did not see herself as a good reader and thinks that “good readers read a lot and know all the words” (Reader Interview, 4/24). She thought her sister was a good reader because she loved to read and knew all the words. When asked what she would do if she came to a word that she did not know, she replied, “I would try to sound it out or ask someone”.

BILL

Bill was cooperative, followed directions well and stayed on task. Until later in the semester, Bill's participation in the group reading sessions was not of the high level of participation of the other students in the group. He did not always volunteer to read or answer questions unless called upon by the teacher. However, in the later part of the semester, he became more active in the group reading and interactions. Bill's strategy for figuring out a word he did not know was to "sound it out", and he said he would help others having difficulty reading by helping them to "sound out the words" (Reader Interview, 4/23). He considered his sister to be a good reader because she was older than he was and she was in high school. He seemed to view learning to read and write as related to age.

Summary

The major objective of my research was to investigate the nature of teacher-student interactions during reading in one-to-one literacy tutoring sessions, in order to describe the nature of these interactions and how the interactions afford the students the opportunity to further their reading abilities.

I collected data on a teacher and her group of four students in a literacy tutoring program for nine weeks during an academic semester. The data included audio and video tapes of the sessions, interviews with the teacher and students, Reading Miscue Inventory, lesson records and related documents, and my own field notes representing each day's observations within the tutoring setting.

I analyzed only portions of the reading experiences that involved one-to-one interactions between the teacher and students by organizing the data and developing categories to describe the interactions. I also analyzed students miscues collected with the Reading Miscue Inventory in order to describe their use of language cues and reading strategies at two points in time.

Chapter 4: Findings

Introduction

In this chapter, I discuss my findings as they relate to my specific research objectives. The major purpose of this study was to investigate how a teacher interacts with her students at critical learning moments during reading in one-to-one literacy tutoring sessions. The specific research objectives for this study were as follows:

1. To describe the nature of teacher-student interactions when a student reads text in one-to-one literacy tutoring sessions.
2. To describe the process in these interactions by which the teacher helps to further the students' reading progress.
3. To develop reader profiles of the four students observed in the study in order to better describe and understand any change in their reading strategies.

According to Hoffman and Baker (1980), while Anderson et al. (1977) contributed to our understanding of the nature of teacher feedback, they could not describe students' behaviors during teacher-student interactions that were specific to the oral reading context. Therefore, researchers who wish to describe teacher-student interactions within an oral reading context need to develop a coding system that will focus on both teacher and student behaviors during the interactions. In order to characterize the nature of the interactions between teacher and student, I identified and coded both teacher and student actions during their interactions at points of difficulty

when a student read a text in the tutoring sessions. I examined the pattern of the interactions and after analyzing these patterns, I was able to draw conclusions about the nature of the teacher's and student's actions at critical learning moments.

A more detailed analysis of the nature of the teacher's and student's actions revealed the types of teaching and learning strategies used by the teacher and students. This allowed me to characterize the student's changing reading strategies by examining their actions at points of difficulty when reading with teacher's support, and when they solved their problems independently.

In order to characterize the students' changing reading strategies, I also examined the reader profile of each student at the beginning and the end of the study period. The reader profile indicates the proficiency with which a reader uses the system of language and reading strategies (Goodman, Watson, & Burke, 1987).

Nature of the Interactions

Types of Teacher Actions

There were nine categories of teacher actions: no response (N), approving (A), directing (D), questioning (Q), praising (P), reinforcing (R), telling (T), modeling (M) and combining (C). A no response action means the teacher not responding to the student's appeal for help. An approving action means the teacher approving the student's attempt. In a directing action, the teacher directs the student to take any specific action. A questioning action means the teacher asking the student a question. Praising actions are actions where the teacher praises the student's effort. Reinforcing actions involve the

teacher reinforcing the use of a strategy. A telling action is one where the teacher reveals something to the student or tells the student something that will help. A modeling action is one in which the teacher demonstrates something that she wants the student to try independently. A combining action is made up of two or more of the other actions. For example, one teacher action can involve questioning and directing in a combining action.

The types of teacher actions can be classified into three general types of teacher feedback: no feedback, terminal feedback, and sustaining feedback (Hoffman, 1979; Hoffman & Baker, 1980). No feedback means the teacher not taking any action. Terminal feedback which means providing the appropriate word to the student involves telling actions. Sustaining feedback means focusing the student's attention, making the student aware, or prompting the student with cues, and it involves approving, directing, directing, questioning, praising, reinforcing, and modeling actions. Table 4 describes the categories of teacher actions.

Table 4: Categories of Teacher Actions

<u>No response (N):</u>	The teacher not responding to the student's appeal for help.
<u>Approving (A):</u>	The teacher approves the student's attempt. <i>Example: Yes, you're right. Keep reading.</i>
<u>Directing (D):</u>	The teacher directs the student to take any specific action. <i>Example: Start the sentence over again.</i>
<u>Questioning (Q):</u>	The teacher asks the student a question. <i>Example: Does that make sense?</i>
<u>Praising (P):</u>	The teacher praises the student's effort. <i>Example: Good job!</i>
<u>Reinforcing (R):</u>	The teacher reinforces the use of a strategy a student has attempted. <i>Example: You're using a good strategy. Keep going.</i>
<u>Telling (T):</u>	The teacher tells the student the appropriate word. <i>Example: That word is "tight".</i>
<u>Modeling (M):</u>	The teacher models a problem solving action. <i>Example: Teacher skips a word, comes back and uses meaning or structural cues to figure out the word.</i>
<u>Combining (C):</u>	The teacher uses at least two actions. <i>Example: What does it say? (Q) Read it again. (D)</i>

Types of Student Actions

The student actions were self-correcting (SC), sounding out (SO), rereading (RR), skipping (SK) and multiple cues (MC). A self-correcting action means the student recognizes a miscue and self-corrects. A sounding out action means the student using letter-sound relationships in the attempt to read. A rereading action means the student rereads sections of the text in the student's problem-solving attempt. A skipping action means the student skips an unfamiliar word, reads ahead and then comes back to the problem. In multiple cues, the student uses a variety of cues and strategies in his or her attempt. Table 5 shows the categories of student actions.

Table 5: Categories of Student Actions

<u>Self-Correcting (SC):</u>	The student makes a self-correction.
<u>Sounding Out (SO):</u>	The student matches letters and sounds.
<u>Rereading (RR):</u>	The student rereads a section of the text.
<u>Skipping (SK):</u>	The student skips a word, reads ahead and then comes back.
<u>Multiple Cues (MC):</u>	The student uses a variety of cues and strategies.

Frequency of Teacher Actions

Table 6 shows the frequency of the teacher's actions at points of difficulty during teacher-student interactions.

Table 6: Frequency of Teacher Actions

Actions	Terri (N=102)	Mike (N=192)	Flo (N=210)	Bill (N=80)
No response	29.4% (30)	31.3% (60)	34.3% (72)	25.0% (20)
Approving	05.9% (6)	00.0% (0)	04.3% (9)	00.0% (0)
Directing	05.9% (6)	09.4% (18)	08.6% (18)	07.5% (6)
Questioning	23.5% (24)	31.3% (60)	17.1% (36)	22.5% (18)
Praising	05.9% (6)	03.1% (6)	08.6% (18)	07.5% (6)
Reinforcing	00.0% (0)	03.1% (6)	02.9% (6)	07.5% (6)
Telling	05.9% (6)	03.1% (6)	04.3% (9)	00.0% (0)
Modeling	05.9% (6)	00.0% (0)	05.7% (12)	07.5% (18)
Combining	17.6% (18)	18.6% (36)	14.3% (30)	22.5% (18)

The teacher did not respond when a student made a miscue and did not self-correct, or when a student stopped reading and appealed for help an average of about 30 percent of the time during their interactions. The teacher's role in these instances was to give the student time to problem solve on his or her own when she felt the student was capable of doing that, or when she felt the miscue did not violate the meaning of the text (conversation with teacher 5/8). When the teacher took action, the most frequently used

action with all the students was questioning. This was used by the teacher 23.5, 31.3, 17.1 and 22.5 percent of the time with Terri, Mike, Flo and Bill respectively. The combining action was the second most frequently used when the teacher took action: 17.6, 18.6, 14.3 and 22.5 percent. The combining actions involved two or more actions, and a closer examination revealed the actions as showed in table 7.

Table 7: Types and Frequency of Actions Contained in Combining Actions

Actions	Terri (N=18)	Mike (N=36)	Flo (N=30)	Bill (N=18)
Approving	33.3% (6)	16.7% (6)	20.0% (6)	16.7% (3)
Directing	00.0% (0)	08.3% (3)	10.0% (3)	16.7% (3)
Questioning	33.3% (6)	33.3% (12)	30.0% (9)	33.3% (6)
Praising	16.7% (3)	16.7% (6)	10.0% (3)	00.0% (0)
Reinforcing	00.0% (0)	00.0% (0)	00.0% (0)	00.0% (0)
Telling	00.0% (0)	16.7% (6)	10.0% (3)	16.7% (3)
Modeling	16.7% (3)	08.3% (3)	20.0% (6)	16.7% (3)

It was interesting to find that questioning was still the most frequently used action by the teacher within the combining actions. It made up about a third of the actions contained in the combining actions. It seems that by dividing the combining actions into

individual categories, I have obtained a fuller description of the types and frequency of the teacher's actions during the teacher-student interactions. Whereas initially it appeared there were little approving actions with Terri and Flo, and none with Mike and Bill, now, with the combining actions incorporated into their own categories, it can be seen that some of the combining actions involved approving actions with all the students.

In summary, upon close examination of the types and frequency of the teacher's actions at points of difficulty during teacher-student interactions when a student read a text, I found the frequency of questioning actions was the highest. In other words, when the teacher responded to students' miscue or appeal for help, the most action the teacher took during the interactions was the use of questioning.

An analysis of the questions asked by the teacher revealed that majority of the questions (about 90 percent) were prompts to assist the students in their performance. Questions such as, "Does that make sense?", "Does that sound right?", and "What else can you do here?" were used by the teacher to elicit a word or the use of a strategy rather than telling the student the word or the strategy to use. A small portion of the questions (about 10 percent) was used to request for information about the text. For example, "What is Harry doing here?" or "What happened when he fell?" were questions that were used as preludes to other questions which were prompt, or to revealing some information to the student.

It is also worth mentioning that in classifying the teacher's actions earlier on in my data analysis, I classified some of the teacher's questions as actions other than

questioning actions. For example, a question such as, “Well, have you tried skipping and reading to the end of the sentence?” was classified as a directing action. Even though the teacher used an interrogative form, the effect of her question was to direct the student to take a specific action, in this case, to skip the word and read to the end of the sentence.

Other examples are, “I like the way when you did not know the word, you looked at the picture. Can you tell me why you did that?” and “What did you do here?”. The teacher’s questions in these instances were both classified as reinforcing actions rather than questioning actions because in both cases the teacher was trying to get the student to name or affirm a strategy that he or she had used.

Frequency of Student Actions

Table 8 displays the frequency of student actions during the interactions.

Table 8: Frequency of Student Actions

Action	Terri (N=95)	Mike (N=142)	Flo (N=145)	Bill (N=73)
Self-Correcting	11.6% (11)	14.8% (21)	12.4% (18)	11.0% (8)
Sounding Out	51.6% (49)	40.1% (57)	47.6% (69)	50.7% (37)
Rereading	10.5% (10)	19.7% (28)	16.6% (24)	16.4% (12)
Skipping	10.5% (10)	09.9% (14)	10.3% (15)	08.2% (6)
Multiple Cues	15.6% (15)	15.5% (22)	13.1% (19)	13.7% (10)

The most frequently used action by the students in their attempts to read was sounding out the words using sound-letter relationships. About half of the time, the matching of sounds and letters precluded the use of any other means of word identification. Sounding out a word to recognize it took precedent over discovering it through its relationship to other words in the sentence or passage, or its meaning in relation to the context in which it appears. One might suspect that the students' current and past regular classroom teachers placed considerable emphasis on teaching phonics skills. Although their teacher in the literacy tutoring program taught phonics as well, she approached the teaching of phonics as only part of an integrated reading instruction.

The students also made some use of their intuitive knowledge of language cues acquired at an earlier stage of language acquisition. The students sometimes relied on meaning and structural knowledge to read and did not notice when there was a mismatch between their attempts and the words on the page. The following is an example from Mike's reading of a text:

Mike's reading

Text

How many feet

How many, many

do you meet

feet you meet

Slow feet

Slow feet

Fast feet

Quick feet

Mike appears to be relying on meaning and structural cues when he read “How many feet do you meet?” instead of “How many, many feet you meet?”. He used meaning cues in that his attempt made sense and fit the meaning of the story. He also used structural cues because the way he read it would better fit the structure of the English language. In the other example, Mike read “fast feet” for “quick feet” after reading “Slow feet”, thereby making use of language cues and neglecting visual information.

An explanation for the students’ use of syntactic and semantic cues, or language cues in general could be found in the extension of the oral language patterns of children into reading print for meaning (Ruddell, 1965). Ruddell noted that syntactic and semantic cues available in speaking are helpful to the child in reading printed material.

Interactions at Two Points in Time

Another way to characterize the teacher-student interactions was to examine the number of interactions that occurred during reading at the beginning and at the end of the study. I counted the number of interactions between Katie and each student for two consecutive lessons at two points in time: week 2 and week 8 of the study period. Table 9 displays the information obtained.

Table 9: Number of Interactions at Week 2 and Week 8

Student	Week 2	Week 8
Terri	19	8
Mike	14	2
Flo	28	12
Bill	21	8

During the two consecutive lessons in week 2 of the study, there were 19, 14, 28 and 21 cycles of interactions between Terri, Mike, Flo and Bill respectively and the teacher. By contrast, there were fewer interactions between the teacher and the students in week 8 of the study. There were 8, 2, 12 and 8 interactions during two consecutive lessons in week 8 between Terri, Mike, Flo and Bill respectively and the teacher.

It would be necessary to examine what may have occurred during the tutoring sessions at these points in time. Perhaps the books the students read during week 2 were difficult for the students, but this was unlikely because the selection of a book was not based on any predetermined sequence but on the teacher's understanding of each student's strengths and needs. Another possible explanation could be that the teacher's introduction of the story during week 2 was not as supportive as during week 8 thereby leaving much more problem solving for the students during week 2 of the study. This

was not the case either since I found the introductions to be similar throughout the course of the study.

It seems that the high frequency of interactions at the beginning of the study was usual since the students needed more support from their teacher. The low frequency of interactions at week 8 fits the emerging pattern of each student's growing independence in problem solving and as a reader.

Interactions During Problem Solving with Teacher's Support

In the previous section, I described the types of students' and teacher's actions within their interactions at points of difficulty. In this section, I describe the scaffolding interactions that emerged during their interactions. Bruner (1985) described scaffolding as "reducing the number of degrees of freedom that the child must manage in the task" and suggested that the tutor does this by "segmenting the task and ritualizing it", adjusting the task so that the child can "just manage, even to the point of shielding his limited attention for distraction". Scaffolding in my analysis refers to interactions in which the teacher is actively engaged in problem solving with the student, prompting the student to use known strategies, verbalizing and evaluating strategies used, revealing information, or helping the student practice graphophonic generalizations.

The scaffolding interactions occurred when the teacher listened to a student's attempts to read and responded to those attempts or student's appeal for help. Some of these attempts at scaffolding seemed to fall within the student's zone of proximal development, and others did not. In other words, some problem-solving interactions

provided assistance the student needed to solve the problem, or in Vygotsky's (1978) terms, allowed the student to function at his or her "potential developmental level" (p. 85). With the teacher's support, the student attempted to solve the problem. Other interactions were outside the student's zone of proximal development. In which case, even with assistance, the student was unable to solve the problem, and the teacher needed to provide the answer to the students.

I will describe interactions at points of difficulty in which scaffolding occurred. I will describe how the teacher-student interactions proceeded, what actions the teacher took, and how well instruction seemed to match the student's zone of proximal development.

Scaffolding was needed in situations when a student encountered a word he or she did not recognize and stopped reading to ask for assistance, or when a student made a miscue that he or she did not self-correct. Some of the problems were solved easily with a single action from the teacher, such as, directing the student to take any specific action, or prompting the student to use a known strategy, or providing a piece of information that allowed the student to continue reading. Other situations were more complex and involved more than a single action.

Reinforcing Strategies Used

In the following interaction (6/7; 6/12), Katie's role was that of reinforcing the students' use of their chosen strategies.

Text

Terri: I knot, no, wait, (stops) *"I know we'll play games" , said*

Katie: TRY AGAIN. *Grace.*

Terri: I know we'll play games, said Grace.

Katie: WHAT DID YOU DO HERE?

Terri: I went back and read it again to make sense.

Katie: WHY?

Terri: Because it's one of the strategies.

Katie: GOOD FOR YOU.

In another example, the following occurred between Katie and Flo.

Text

Flo: I'm taking the rrr (stops) *"I'm taking the rabbits home for the*

Katie: WHAT ELSE CAN YOU DO HERE? *weekend", said Rita.*

Flo: (looks at picture, nods)

I'm taking the rabbits home for the weekend, said Rita.

Katie: I LIKE THE WAY WHEN YOU DID NOT KNOW THE WORD,

YOU LOOKED AT THE PICTURE. CAN YOU TELL ME

WHY YOU DID THAT?

Flo: Because another strategy is to look at the picture when you don't know the word.

Katie: Good. WAY TO GO GIRL.

In these and similar situations, Katie simply got the students to identify the strategies they were using. When the students were not able to verbalize their strategies, Katie would sometimes tell them what she thought they had done. Bruner (1985) noted that “consciousness and control come only after one had already got a function well and spontaneously mastered” (p. 24). Perhaps the students had no difficulty reflecting on strategies that they had already mastered. According to Gaskins & Elliot (1991), meta-cognitive knowledge about strategies enables the learner to be aware when particular strategies are appropriate, and sharing the rationale for a particular strategy helps students to see for themselves the value of a particular strategy.

Directing Students to Take an Action

In other situations, Katie directed the students to take specific actions. In the following example (5/29), Bill seemed to be inventing text, and Katie pointed to part of the text already read incorrectly by Bill, and gave him directions.

Text

Bill: Stop this no, you nau neither feet (stops) “*Stop this nonsense, you naughty*

Katie: DOES THAT MAKE SENSE? *feet!” roared Bogle.*

Bill: No. Stop this now, you, you, you

Katie: LOOK AT THE BEGINNING. STOP THIS...

(points at the word “nonsense) TRY AND CHUNK IT.

Bill: (covers “sense”, reads “non”, and vice-versa) non, sense, nonsense.

Stop this nonsense, you nau, nau nau (stops)

Katie: SKIP AND READ TO THE END AND COME BACK.

Bill: stop this nonsense, you *blank* feet. You naughty feet.

Stop this nonsense, you naughty feet, said Bogle.

Helping Bill focus on the task by directing him to take specific actions was sufficient to help him take control again. In their interactions, Katie had earlier on directed Bill to “chunk” a word, and then told him to skip a word and read on. The teacher’s later directives seemed to refocus Bill on the task of reading instead of focusing on a word. With that little support, he was able to continue reading the text. Bill had previously shown his ability to use this strategy and a simple reminder was sufficient to help him apply the strategy on his own.

In many situations like these examples, the teacher prompted the students to use meaning cues when their attempts to use sound-letter relationships were not successful. The strategy of skipping or “blanking” the word often worked well for the students, but this was a strategy that earlier on, they did not often spontaneously use. It usually had to be prompted by the teacher.

Another meaning strategy that the teacher prompted was “does it make sense?”. By asking the students to make sense was enough of a prompt for them to put the sentence together. When the students were asked if it made sense, their response was to reread the sentence. They had learned what action to take when this prompt was given.

These simple prompts: pointing to part of the text, skipping a word and going on, and rereading to make sense, were successful because the teacher supplied a reminder of

an appropriate strategy that the students were able to use (actual developmental level) but needed help in deciding when to apply it (potential developmental level).

Telling or Giving Information

In some instances during their interactions when the student could not proceed in their reading, the teacher told them the word they needed or gave them information that helped them to continue to read. Usually, the words given were words that might be unfamiliar, such as names (e.g., Bogle, Jake, Keller), and words that were difficult to sound out (e.g., autumn, Mrs.). The teacher sometimes provided information that could help the student and revealed the word after the student's unsuccessful attempt. Sometimes, this information provided was sound-letter information. The following is an example during an interaction between Katie and Flo (6/10).

Text

Flo: They were very vicious.

They were very fierce.

Katie: VICIOUS IS A GOOD ONE.

WHAT LETTER WILL IT START WITH?

Flo: a "v"

Katie: BUT WHAT DO YOU HAVE HERE? (points at "f")

Flo: /f/ /f/i/r/s/

Katie: GOOD TRY. THE WORD IS "FIERCE" SAY IT AGAIN.

Flo: fierce

In another situation (6/5), Katie told Mike a sound-symbol generalization that he had become familiar with, and that eventually helped him pronounce the unfamiliar word.

Text

Mike: Harry Hare was besting, beaten of his	<i>Harry Hare was boasting of his</i>
great speed, I can run so fast that	<i>great speed, "I can run so fast that</i>
no one has ever beaten me, he said.	<i>no one has ever beaten me," he said.</i>

Katie: WHAT'S HARRY HARE SAYING HERE?

Mike: Nobody can beat him in a race.

Katie: THAT'S PRETTY CONFIDENT.

THE WORD HERE (points at "boasting")

IF YOU TAKE AWAY THE ENDING, WHAT DOES IT SAY?

Mike: boo boost

Katie: NOW REMEMBER WHEN TWO VOWELS ARE WALKING,

THE FIRST ONE DOES THE TALKING AND

Mike: The second one is silent.

Katie: GOOD. TRY AGAIN.

Mike: boast

Katie: GOOD. THEN ADD THE ENDING.

Mike: boasting

Katie: IT MEANS YOU THINK YOU'RE PRETTY COOL AND

BRAGGING ABOUT IT.

Complex Interactions

There were times when scaffolding was simple and direct. One prompt or piece of information was sufficient to help a student continue with the reading of a text. But there were also times when many prompts or actions were needed to help a student solve the problem. In the simple interactions, where the teacher was able to provide what was needed to help a student, the interaction was within the student's zone of proximal development. In the more complex situations, where the interactions were like a spiral moving back and forth, with the teacher providing information or suggesting a strategy, the student responding, the teacher analyzing the response and making another suggestion or giving information, the teacher seemed to be searching for the right strategies to help a student. Some of the scaffolding was eventually helpful, that is, the student was able to solve the problem with the teacher's support. Some of the scaffolding was not helpful, and the teacher told the student the word after a long attempt.

Within the teacher-student interactions, I identified three types of scaffolds: helpful, mended and misleading. Helpful scaffolds were those that moved the student forward in his or her problem solving. Mended scaffolds were those that initially did not move the student forward, but was mended with a helpful action by the teacher and eventually moved the student forward. The third type was misleading scaffolds because the teacher took actions that the student could not build upon, or lead the student away from efficient problem solving and the teacher had to provide a terminal feedback (tell the student the word). About 58 percent (N=206) of the scaffolds were helpful,

32 percent (N=112) were not helpful initially but were mended and eventually become helpful, and 10 per cent (N=36) were misleading and not helpful at all.

The following (5/15), is an example of a mended scaffold during an interaction between Katie and Bill that was eventually helpful.

Text

Bill: I would have had more fun working in my grading (looks at teacher)

“I would have had more fun working in my garden” she said.

Katie: IT LOOKS LIKE IT COULD BE GRADING,
BUT LOOK AT THE BEGINNING WORDS.

Bill: gra

Katie: WHAT SOUND IS THIS? (points to first two letters)

Bill: gra grade

Katie: IF THIS WAS /grr/a/d, WHAT WOULD

Bill: /r/

Katie: WELL DOES IT START WITH /ga/ or /gr/ ?

Bill: /ga/

Katie: DOES THAT REMIND YOU OF ANY WORD YOU KNOW?

Bill: guard

Katie: READ THE WHOLE SENTENCE AND SEE IF IT MAKES SENSE.

Bill: I would have had more fun working in my guard, (stops)
working in my garden, she said.

Katie: DOES GARDEN MAKE SENSE?

Bill: Yes, garden does.

Katie: GOOD. CONTINUE.

In this complex interaction, Bill appealed for confirmation after a miscue (looks at teacher), and the teacher's reaction was to point out the miscue and point to the first two letters of the word. Bill attempted to use the sound of the letters to identify the word, but Katie's prompt was not successful in helping him do so. She tried again. Bill anticipated her question (WHAT WOULD ...?), and Katie did not finish the question when he responded /r/. The sound-symbol strategy was not working, so Katie shifted to another strategy, a meaning cue. In the end the interaction was helpful in that Katie helped Bill find a strategy to work out the problem. The example illustrated how Katie moved away from an unsuccessful strategy in response to a student's actions. It also showed that Bill was comfortable with the process and was willing to keep trying.

The following is an example of a misleading scaffold during an interaction between the teacher and Terri (6/18).

Text

Terri: Grace laughed at Betsy's quizes (stops) *Grace laughed at Betsy's questions.*

Katie: DOES THAT MAKE SENSE?

Terri: Grace laughed at Betsy's quietness

Katie: DOES THAT WORD LOOK LIKE ANY WORD YOU KNOW?

Terri: No

Katie: LET'S TRY AGAIN. LOOK AT THE WORD. DOES IT LOOK LIKE A
FAMILIAR WORD? GRACE LAUGHED AT BETSY'S ...

Terri: /k/ /k/ /qui/ /qui/ I don't know

Katie: THE WORD IS QUESTIONS

The teacher earlier on in their interaction asked Terri to make sense which she did, "Grace laughed at Betsy's quietness". The teacher tried another prompt, "does that word look like any word you know?", which was not helpful. Katie's next action lead Terri away from efficient problem solving to trying to sound it out, because she asked Terri to use the same information that was not helpful in the previous prompt, "let's try again. Look at the word. Does it look like a familiar word? ...".

Summary of Teacher-Guided Problem-Solving Interactions

Scaffolds during the students' reading were based on the students' actual performance with the text. In these situations, the teacher observed a student's attempts and decided on her next actions by on-the-spot analysis of those attempts. There were two situations in which the teacher moved into an active role: when a student could not recognize a word, stopped reading and appealed for help, and when a student made a miscue that was not self-corrected. When the teacher responded to the students, the teacher encouraged any useful strategies the student attempted, prompted or directed the student to use sound-symbol cues or meaning cues or other cues, and/or gave the student information that would help.

In these joint problem-solving interactions, some problems were directly and

quickly solved, others required more complex actions. The teacher tried a prompt or question, evaluated the results, and tried again until some resolution was made. The most difficult problem-solving interactions usually involved words that were not already part of the students' oral vocabulary, and in those instances the teacher told the student the word. About 90 per cent (N=318) of all scaffolds were helpful to the students in that they were immediately helpful or were initially not helpful but were mended and eventually became helpful. About 10 per cent (N=36) were not helpful at all.

Interactions During Independent Problem Solving

Most of the interaction was spent in teacher-guided problem solving, these were times when a student required scaffolding from the teacher, but sometimes the students acted independently with no support from the teacher. The interactions during independent problem solving were different from interactions during which the teacher played a scaffolding role. These situations will be examined separately in the following sections.

During the interactions between teacher and student, there were many times when the students were independently problem-solving. I defined independent problem solving as those times when a student worked on words, phrases, or sentences, successfully applying his or her knowledge of language structure and reading strategies without the teacher's assistance. The teacher's role in these situations differs from her active role when she was helping a student who was unable to proceed with his or her reading, did not recognize a word or did not correct a miscue. The teacher's involvement during

independent problem solving by students was minimal. She often waited for the student to act, and then reviewed or celebrated what the student did. When a student encountered a problem in a text, the teacher had to decide whether to intervene or wait and give the students time to handle the problem him or herself. Sometimes when she waited, the students were able to solve the problem. Other times, it was necessary for the teacher to intervene.

In this section, I describe those interactions when the teacher waited, and the student was able to interact successfully with the text to solve a problem. In these independent problem solving situations, the student took the role of the most active partner, reading, and using different strategies to solve problems. Most of these independent problem-solving interactions occurred during the later part of the study, and were usually focused on a single word.

The teacher's role during these interactions, though seemingly minimal or limited, was still very important. In a conversation with the teacher (5/20), she said her students often turned to her for assistance rather than attempting to solve the problem on their own. She said that the only way they would try to solve a problem would be to try to sound out the word, and if that did not work, then they would stop and look at her. She believed that convincing the students to act and take control of the process was an important goal for her instruction.

Thus, part of the teacher's role with her students was to give them time and opportunity to problem solve on their own, when she felt they could do that. She tried to

avoid giving cues or doing for them what they could do for themselves. When a student stopped reading and looked at her for help rather than trying on his or her own, she would look down or away, or remain silent. The student would usually get the message and return to working on the problem. The student would immediately either recognize the miscue and self-correct, or initiate and complete a variety of strategies.

Student Self-Corrects

Some of the students' miscues tended to be visually similar to the actual text but often changed the meaning or did not fit the structure of the sentence. For example, the following (5/27) occurred when Mike was reading a text.

Text

Mike: She'll got us (looks at teacher)

Beady Bear: *She'll get us!*

Katie: (remains silent)

Mike: (looks at the page)

She'll get us!

Mike's miscue suggested that after reading the "she'll", he predicted "got" from the first letter of "get". "She'll got" was not a meaningful construction, so as he read on, his prediction did not fit the meaning or structure of the sentence. He looked to the teacher for confirmation, but she remained silent. This seemed to cue him to make a self-correction. In this quick self-correction example, the teacher did not respond when Mike look at her, she waited and allowed him to self-correct using his knowledge of systems of language and reading strategies.

Student Uses Graphophonic Cues

The students demonstrated other independent problem-solving strategies when they encountered words they did not recognize immediately. The most common strategy they used involved using graphophonic cues. On one occasion (5/27), Terri read as follows:

	<u>Text</u>
Terri: Yum! Porridge. I hope it's not too hot, or too (stops, looks at teacher)	<u>Baby Bear:</u> Yum! Porridge. I hope it's not too hot
Katie: (remains silent)	or too salty or too cold.
Terri: I hope it's not too hot, Or too /s/ /s/ salty or too cold...	I hope it's just right.

Terri verbalized the beginning sound of the word and then was able to read the word. It seemed as though she used the beginning sound to decode the word.

In another example (6/14), Flo read as follows:

	<u>Text</u>
Flo: My feet have gone on (stops, looks at teacher)	"My feet have gone on strike!" said his father.
/s/ /st/ stri strike! said his father.	

Flo produced some sounds from the word to give her an approximation, and then was able to figure out the word. In both examples, producing the beginning sounds helped the students to decode the words. However, since the students did not verbalize

their thinking, it is not possible to be certain of their strategy use.

Student Rereads

The students also used meaning cues to help them decode unknown words. Often it was unclear exactly what they were doing because much of the work was done silently. One strategy they learned from their teacher and seemed to be able to use was to reread a section of text, repeating words that they had already worked out or knew already. There seemed to be various reasons for these repetitions. Sometimes it seemed the student was stalling for time while working out a strategy. For example, Terri read as follows (5/27):

Text

Terri: I...I...I wonder what the noise is.

Baby Bear:

I'm going to see.

I wonder what the noise is.

I'm going to see.

Perhaps repeating the part she knew gave her time to work out “wonder. How she actually decoded the word is not clear. Perhaps repeating the word “I” helped her hold the meaning or structure of the sentence in mind as she focused on the word “wonder”.

In another instance (6/5), Mike experienced difficulty with a particular sentence, but literally asked the teacher not to intervene while he worked it out.

Text

Mike: You have already beaten me once.

“You’ve already beaten me once.

That was in out for me, no, wait,

That was enough for me.”

don’t say anything. (stops for a while)

Katie: (remains silent)

Mike: You have already beaten me once.

That was enough for me.

Perhaps rereading the sentence, putting it into context, helped Mike. In this example as in others, the students added little personal comments such as, “no”, “wait”, “I mean”, “hold on”. These brief comments to themselves may be evidence of transition to self-assistance reported by Tharp and Gallimore (1988). It could also be evidence of meta-cognitive activities, thinking about the process and deliberately focusing on the text.

Student Skips, Reads Ahead

Sometimes during the independent problem-solving interactions, students skipped a word, read on and then came back to read the section skipped and try to solve the problem. The following is an example of Bill doing just that (6/5):

Text

Bill: I'm taking the skeleton home

“I'm taking the skeleton home

for the weekend, said Sam.

for the weekend,” said Sam.

I /th/ thought he would be (stops)

I thought he'd be lonely on his own.

... on his own.

I thought he would be lonely on his own.

Bill did not verbalize his thinking. However, it seemed that Bill skipped a word and read to the end of the sentence, and used either meaning cues, or structural cues or both to figure out the word.

Student Uses Multiple Cues

In their independent problem solving, the students did not always use one cue or strategy at a time to solve a problem. In some situations, they use multiple cues or strategies, as in the following example (6/5):

Text

Mike: They were very fierce.

They were very fierce.

The most (*blank*) was Tyrannosaurus Rex.

The most terrible was

They were very fierce. The most (stops)

Tyrannosaurus Rex.

The most troubleble was, no (looks at teacher)

Katie: (remains silent)

Mike: /te/ri/ble/ They were very fierce.

The most terrible was Tyrannosaurus Rex.

In the above example, it seemed that Mike was trying to use a meaning cue, but after reading the section he realized what he said did not make sense. When Mike looked at the teacher for help, she did not respond. By this time, the students knew that the teacher's lack of response meant it was their responsibility to work out the problem on their own by trying other cues or strategies. Mike then proceeded to use graphophonic cues to solve his problem.

Summary of Independent Problem-Solving Interactions

When the students were problem solving on their own, the teacher's role was to wait and give the students the time and opportunity to work on their own using their knowledge of language structure and reading strategies. As long as the student seemed to be working on the task, the teacher waited. When a student appealed for assistance without trying to solve the problem on his or her own, the teacher did not respond, thus encouraging them to make an attempt. As Kulhavy and Anderson (1972) noted, when wait-time is allowed by the teacher after oral reading miscues, accuracy should be affected positively through an increased opportunity for self-correction by the student.

In these instances where the teacher waited and did not respond to the students' call for help, her role seemed inactive, but by waiting, she played a critical role in the development of their independence. The teacher's lack of response seemed to convey the message, "you can do this". The students took actions to solve the problems at some points of difficulty during their oral reading by not relying solely on graphophonic cues, but also using meaning cues and language structure, and using all cues flexibly at difficulty.

Students' Reader Profiles

The Miscue Analysis Procedure I was used to conduct an analysis of each student's oral reading miscues at the beginning (week 1) and the end (week 9) of the study. The miscue analysis produced a Reader Profile for each student which showed the proficiency with which the student used the systems of language and their use of reading strategies before and after the study. Goodman (1978) noted that reading proficiency is determined by the degree to which a reader makes effective and efficient use of the language cueing systems and reading strategies. Proficient readers make both effective and efficient use of their knowledge of the language systems and reading strategies.

By the end of the study, it seemed that there were some changes in the students' reading proficiency as indicated by their use of language cues and reading strategies. Evidence to support this finding came from two sources: the examination of the students' actions at points of difficulty with and without the teacher's support which was presented in the preceding sections, and a comparison of the students' pre and post reader profiles which are presented in the following sections.

In the following sections, I discuss the results of these pre and post comparisons in terms of each student's use of language cueing systems and reading strategies at two points in time. The quality of miscues produced by a reader can be examined in terms of the strategies (initiating and sampling, predicting, confirming, and correcting) used by the reader (Goodman, Watson & Burke, 1987).

The reader profile data from the Reading Miscue Inventory (RMI) of each student

at the beginning and the end of the study is presented here. This data shows what changes if any, each student has made in his or her use of language systems and reading strategies. The students in this study had been assigned reading levels by their classroom teacher based on their evaluations of the students at the beginning of the academic semester. Flo was assigned first grade reading level, Terri, Mike, and Bill were assigned second grade reading levels. The students read materials for the miscue analysis that were one level above their assigned reading.

Comparison of Reader Profiles: Terri

Table 10 shows the pre and post Reader Profile data for Terri. Terri read third grade level texts for both the pre and post miscue analysis.

Table 10: Reader Profile (Terri)

	<u>Pre (N=40)</u>		<u>Post (N=36)</u>	
<u>Meaning Construction</u>	(N=40)		(N=36)	
No Loss	(10)	25%	(19)	53%
Partial Loss	(9)	<u>22%</u>	(6)	<u>17%</u>
		47%		70%
Loss	(21)	53%	(11)	30%
<u>Grammatical Relations</u>	(N=40)		(N=36)	
Strength	(11)	27%	(13)	35%
Partial Strength	(2)	5%	(9)	25%
Over-correction	(4)	<u>10%</u>	(2)	<u>8%</u>
		42%		68%
Weakness	(23)	58%	(12)	32%
<u>Graphic Similarity</u>	(N=26)		(N=27)	
High	(13)	50%	(21)	78%
Some	(12)	<u>46%</u>	(3)	<u>11%</u>
		96%		89%
None	(1)	4%	(3)	11%
<u>Sound Similarity</u>	(N=26)		(N=27)	
High	(14)	54%	(21)	78%
Some	(11)	<u>42%</u>	(3)	<u>11%</u>
		96%		89%
None	(1)	4%	(3)	11%
<u>Retelling</u> (100 points)				
Total Points	58		70	

At the beginning of the study, Terri produced many unacceptable and uncorrected miscues. She relied heavily on graphophonic information and her primary reading strategy was to sound out the letters and words. Both her percentages for graphic and sound similarity were very high. About half of her miscues resulted in sentences with loss of meaning. Her retelling of the story indicates that she did not have a good understanding of what she read.

Terri's initiating and sampling strategies are reflected in her use of graphic and sound information. Her pre Reader Profile data reveals a combined total of high and some graphic and sound similarity of 96 percent. This is an indication that she was not selective in her sampling strategies and only used the graphophonic cueing system. The strength of her grammatical relations shows that she produced sentences that have some degree of acceptability only 42 percent of the time, which is an indication that she did not make appropriate use of predictions as she read the text or self-corrected when her predictions did not produce acceptable structures. Her graphic and sound similarity scores of 96 percent suggest that she predicted using only letter-sound information. At this point, based on her Reader Profile, Terri can be described as a non-proficient reader.

At the end of the study period, Terri shows some proficiency in her use of language cues and reading strategies. She produces more sentences that are syntactically and semantically acceptable. Though she makes some effective use of reading strategies, she is not very efficient and still tends to rely a great deal on the use of letter-sound relationships. In her retelling she seems to have a better understanding of what she read.

Her post Reader Profile Data shows a combined high and some graphic and sound similarity scores of 89 percent, indicates that she is becoming selective in her sampling strategies, but she is not efficient in her sampling. Terri's strength of grammatical relations shows that 68 percent of the time, her miscues resulted in sentences that are acceptable to some degree. This is also an improvement and indicates that she is improving her ability to make appropriate use of predictions and self-correction when her predictions do not result in acceptable structures. Based on the data in her Reader Profile at this point in time, Terri can be described as a moderately proficient reader who makes effective use of reading strategies and language cues but is not very efficient.

Comparison of Reader Profiles: Mike

Table 11 shows the pre and post Reader Profile data for Mike. Mike read third grade level texts for both the pre and post miscue analysis.

Table 11: Reader Profile (Mike)

	<u>Pre (N=30)</u>	<u>Post (N=36)</u>
<u>Meaning Construction</u>	(N=30)	(N=36)
No loss	(15) 50%	(26) 72%
Partial Loss	(7) <u>23%</u>	(6) <u>18%</u>
	73%	90%
Loss	(8) 27%	(4) 10%
<u>Grammatical Relations</u>	(N=30)	(N=36)
Strength	(12) 40%	(23) 63%
Partial Strength	(4) 13%	(6) 17%
Over-correction	(5) <u>17%</u>	(4) <u>10%</u>
	70%	90%
Weakness	(9) 30%	(3) 10%
<u>Graphic Similarity</u>	(N=25)	(N=36)
High	(15) 60%	(18) 49%
Some	(8) <u>32%</u>	(12) <u>33%</u>
	92%	82%
None	(2) 8%	(6) 18%
<u>Sound Similarity</u>	(N=25)	(N=36)
High	(16) 64%	(18) 50%
Some	(7) <u>28%</u>	(12) <u>30%</u>
	92%	80%
None	(2) 8%	(7) 20%
<u>Retelling</u> (100 points)		
Total Points	76	90

Mike at the beginning of the study seemed to be quite effective but not efficient in his use of language cues and reading strategies. His miscues resulted in meaningful and grammatically acceptable structures most of the time, but the high percentage of his graphic and sound similarity scores is an indication that he overuses graphic and sound information. His retelling scores indicate that he had a good grasp of what he read.

Mike's initiating and sampling strategies as reflected in his pre scores of 92 percent of graphic and sound similarity, shows that he was not selective in his sampling strategies and relied heavily on the graphophonic cueing system. His over-correction score of 17 percent is evidence of his tendency to correct miscues that were semantically and syntactically acceptable. Mike's strength of grammatical relations shows that 70 percent of the time, his miscues produced sentences that are acceptable to some degree in the text. His strength of grammatical relations show that he made appropriate use of predictions as he read or that he self-corrects when his predictions did not result in acceptable structures. His graphic and sound similarity scores also suggest he used a great deal of letter-sound information as he predicted. Mike can be described as a moderately proficient reader at this point.

At the end of the study, Mike is using all the language cues to produce grammatically acceptable and meaningful miscues as shown by the 90 percent of both meaning construction and grammatical relations scores. He is using other language cues and not solely relying on sound-letter relationships, as 18 and 20 percent of his graphic and sound similarity scores respectively show that his miscues have no graphic or sound

similarity at all. This suggests he is making high-level substitutions that have little or no sound-letter relationship. His retelling score indicates he understood a great deal of what he read.

The combined totals of high and some graphic and sound similarity scores of 82 and 80 percent respectively on his post Reader Profile show that he is effective in his sampling strategies, and does not use graphophonic information exclusively. His strength of grammatical relations at the end of the study shows that 90 percent of the time his miscues result in sentences that have at least some degree of acceptability in the text. This shows that he makes use of predictions and self-corrects appropriately. His meaning construction scores show that 90 percent of the time his miscues make sense within the context of the text and produce structures that do not result in any major meaning change. Based on his Reader Profile at the end of the study period, Mike can be described as a proficient reader who makes both effective and efficient use of language cueing systems and reading strategies.

Comparison of Reader Profiles: Flo

The pre and post Reader Profile data for Flo is presented in table 12. Flo read second grade level texts for both the pre and post miscue analysis.

Table 12: Reader Profile (Flo)

	<u>Pre (N=70)</u>	<u>Post (N=75)</u>
<u>Meaning Construction</u>	(N=70)	(N=75)
No Loss	(15) 21%	(43) 58%
Partial Loss	(15) <u>21%</u> 42%	(13) <u>17%</u> 75%
Loss	(40) 58%	(19) 25%
<u>Grammatical Relations</u>	(N=70)	(N=75)
Strength	(17) 24%	(45) 60%
Partial Strength	(14) 20%	(15) 20%
Over-correction	(0) <u>0%</u> 44%	(0) <u>0%</u> 80%
Weakness	(39) 56%	(15) 20%
<u>Graphic Similarity</u>	(N=54)	(N=69)
High	(37) 69%	(40) 58%
Some	(12) <u>22%</u> 91%	(17) <u>24%</u> 82%
None	(5) 9%	(12) 18%
<u>Sound Similarity</u>	(N=54)	(N=69)
High	(33) 61%	(34) 50%
Some	(16) <u>30%</u> 90%	(25) <u>36%</u> 86%
None	(5) 9%	(10) 14%
<u>Retelling</u> (100 points)		
Total Points	64	78

The Reader Profile of Flo shows that by her use of language cues and reading strategies at the beginning of the study, she can be described as a non-proficient reader. Less than half of her miscues resulted in sentences that were semantically and syntactically acceptable or that was corrected with no meaning change, as shown by the 58 percent loss of meaning construction and 56 percent weakness of grammatical relations. Her graphic and sound similarity scores are very high, which suggests that she was relying on sound-letter information in her attempt to read and her main reading strategy was sounding out the words. Her retelling scores show she did not have a good understanding of what she read.

Flo's initiating and sampling strategies show a heavy reliance on the use of graphophonic information. Her Reader Profile data at the beginning of the study which shows a combined total score of high and some graphic and sound similarity of 91 and 90 percent respectively, is an indication that she was not selective in her sampling strategies. Flo's strength of grammatical relations shows that her miscues resulted in sentences that are acceptable to some degree in only 44 percent of the times, which is an indication that she did not make appropriate use of predictions and self-correction when her predictions produce unacceptable structures.

Flo's Reader Profile at the end of the study shows an improved reader who can be described as a moderately proficient reader. Although her miscues result in semantically and syntactically acceptable structures most of the time, she still relied a great deal on graphophonic information when reading.

Flo is effective in her use of predicting and confirming strategies, but she is not efficient since she overuses graphic and sound information. Flo's predicting and confirming strategies are reflected in her strength in grammatical relations which shows that 80 percent of the time her miscues result in sentences that have some degree of acceptability in the text. This indicates that she makes appropriate use of predictions as she moves through the text or that she self-corrects when her predictions do not produce acceptable structures. Her graphic and sound similarity scores of 82 and 86 percent respectively, shows her overuse of graphophonic information as she predicts.

Comparison of Reader Profiles: Bill

Table 13 displays the pre and post Reader Profile data for Bill. Bill read third grade level texts for both the pre and post miscue analysis.

Table 13: Reader Profile (Bill)

	<u>Pre (N=57)</u>		<u>Post (N=50)</u>	
<u>Meaning Construction</u>	(N=57)		(N=50)	
No Loss	(17)	30%	(28)	56%
Partial Loss	(14)	<u>25%</u>	(10)	<u>21%</u>
		55%		77%
Loss	(26)	45%	(12)	23%
<u>Grammatical Relations</u>	(N=57)		(N=50)	
Strength	(28)	49%	(32)	64%
Partial Strength	(2)	4%	(5)	10%
Over-correction	(2)	<u>4%</u>	(2)	<u>5%</u>
		57%		79%
Weakness	(25)	43%	(11)	21%
<u>Graphic Similarity</u>	(N=44)		(N=44)	
High	(31)	70%	(30)	69%
Some	(10)	<u>23%</u>	(7)	<u>15%</u>
		93%		84%
None	(3)	7%	(7)	16%
<u>Sound Similarity</u>	(N=44)		(N=44)	
High	(22)	50%	(28)	64%
Some	(18)	<u>41%</u>	(8)	<u>18%</u>
		91%		82%
None	(4)	9%	(8)	18%
<u>Retelling</u> (100 points)				
Total Points	61		90	

At the beginning of the study, Bill can be described as a non-proficient reader whose primary reading strategy was to sound out the words. His percentage score for graphic and sound similarity are very high, and 45 percent of his miscues resulted in sentences with loss of meaning. His retelling score indicates that he had some understanding of what he read but not a great deal.

His combined totals of high and some graphic and sound similarity scores of 93 and 91 percent respectively show that he was neither effective nor efficient in his sampling strategies, and relied heavily on the graphophonic cueing system. Bill's strength of grammatical relations shows that the miscues resulted in sentences that are acceptable to some degree in the text only 57 percent of the time. This indicates that he is not making appropriate use of predictions as he reads or that he does not self-correct when his predictions do not produce acceptable structures. He uses a great deal of graphophonic information as he predicts, as suggests his high graphic and sound similarity scores.

Bill shows less dependence on graphophonic information by the end of the study as 16 and 18 percent of his graphic and sound similarity scores respectively reveal miscues with no similarity at all, as compared to 5 and 6 percent at the beginning of the study. Bill's initiating and sampling strategies as reflected in his graphic and sound similarity scores, shows a combined high and some similarity of 84 and 83 percent respectively, and this means that although he is knowledgeable about the graphophonic cueing system, he is not very selective in his sampling strategies.

The increase in the strength of grammatical relations of his miscues from 58 percent at the beginning of the study to 79 percent at the end is further evidence that his miscues are resulting in more sentences that have some degree of acceptability, and he is making more appropriate use of predictions and self-corrections. The change in his meaning construction scores from 55 percent at the beginning of the study to 77 percent at the end is an indication that by the end of the study, he is making sense within the context of what he is reading more than half of the time. At this point in time, Bill can be described as a moderately proficient reader.

Summary of Reader Profiles Comparisons

It is apparent from the pre and post Reader Profile data comparisons that there are changes in each student's use of language cueing systems and reading strategies. The changes can be summarized as follows:

1. The Reader Profiles created from the analysis of each student's oral reading miscues, showed that all the four students are less dependent on the graphophonic cueing system, and more selective in their sampling strategies at the end of the study, as compared to their heavy reliance on or exclusive use of graphophonic information at the beginning of the study.
2. At the end of the study, all four students make appropriate use of predictions as they read or they self-correct when their predictions do not produce acceptable structures.

3. The Miscue Analysis Procedure I Reader Profiles also reveal that although there are some degrees of differences in the effectiveness and efficiency of their use of language systems and reading strategies, all the students use the same strategies as they read. They show evidence of initiating, sampling, predicting and confirming. They also show evidence of their use of graphophonic, semantic and syntactic cues.

Chapter 5: Discussion

Introduction

The purpose of this study was to observe and analyze teacher-student interactions when a student reads a text during one-to-one literacy tutoring sessions in order to identify features of their interactions and describe how these help further the student's literacy learning. Several research studies have addressed the issue of literacy tutoring, and some of the focus has mainly been on the teacher's actions and types of teacher talk across several teachers. This focus is understandable since the teacher plays a vital role in the process.

This study was designed to expand on the previous teacher's actions' studies by addressing the ways in which the teacher-student interactions affect the student's literacy learning. The theoretical framework underlying this study viewed teaching and learning to read as a sociocultural process. Approaching teaching and learning to read from this perspective made the interaction a critical component of the process. It was necessary to examine the contributions of both teacher and student in the interaction in order to understand how these interactions helped further the student's learning of literacy concepts and strategies. Three questions guided my inquiry:

1. What is the nature of teacher-student interactions when student reads text in one-to-one literacy tutoring sessions?
2. What is the process in these interactions by which the teacher helps further the student's reading progress?

3. What, if any, change can be observed in the student's reading strategies?

In this chapter, I discuss my findings by returning to these research questions that guided my inquiry.

Discussion of the Findings

Research Question #1:

What was the Nature of the Teacher-Student Interactions when Student Read Text in One-to-One Literacy Tutoring Sessions?

The teacher-student interactions can be characterized as examples of socially-constructed learning within a complex interaction between an expert and a novice. In these interactions, the goal was a socially defined activity which is to read a book. An activity that is commonly engaged in by most members of society. Within the interactions, the teacher and student read texts with the teacher supporting the student's attempts, and the student gradually gaining insights into the process involved.

In these interactions, the students in the study were not fed decontextualized chunks of information to memorize. They were encouraged to use strategies that were conducive to their development of effective and efficient reading strategies. The teacher prompted the students to use various strategies, supported the attempts made by the students, and provided information when needed. The students were gradually constructing their own understandings of the processes involved in reading texts, as they actively engaged in reading tasks under the teacher's guidance.

The interactions needed to support this socially-constructed meaning were very

complex and required the teacher to make many decisions during each session. These decisions were based on the teacher's beliefs and knowledge of the reading process, her beliefs and knowledge of how children learn to read, and her knowledge of each particular student's learning (conversation with teacher, 6/17).

The complexity of the interactions was a result of the nature of the task of reading and the teacher's attempts to help the students develop independent problem-solving strategies. It is much more complicated to change higher-order thinking processes than asking students to memorize lists of information. Reading is one such higher-order thinking process that requires the coordination of many concepts and strategies (Clay, 1991). Therefore, it is predictable that interactions designed to help a student learn to read would be complex.

Some of the complexity of the interactions comes from the inexact nature of the scaffolding process. Wood et al. (1976) described this process: "(W)here the tutor excels or errs, of course, is in being able to generate hypotheses about the learner's hypotheses and often to converge on the learner's interpretation. It is in this sense that the tutor's theory of the learner is crucial to the transactional nature of tutoring" (p. 97). Making hypotheses about the students' interpretation of various tasks was not an exact science for this teacher. Adding to this difficulty was the inability of the students to clearly verbalize their strategies and thinking processes. The teacher had to use multiple strategies in many situations to find strategies that worked for the students.

Teacher feedback does not occur in a vacuum but is guided by the teacher's

implicit rules for feedback (Hoffman, 1979; Hoffman & Baker, 1980). The teacher in this study seemed to base her decision to intervene on a consideration of the task of reading as a progressive movement toward proficiency. When the students encountered problems while reading a text, they were of two types - either the students made a miscue or could not recognize a word and were not able to proceed with the task. In the miscue situations, the teacher's first action often was to wait and give the students the opportunity to self-correct on their own. The decision to wait sometimes resulted in the students self-correcting the miscues using strategies that they had learned.

When miscues were left uncorrected, the teacher would either ignore them entirely, especially if they did not affect the meaning of the text, or if they did, would call attention to them and help the students correct them. She would call attention to miscues usually by asking the students to find them or by asking the students to check the word with questions such as, "does that make sense?" or "does that sound right?".

In situations where a student could not recognize a word and was not able to proceed, the teacher usually waited for a few moments to give the student an opportunity to attempt to solve the problem using his or her own strategies. In earlier sessions when the teacher waited, the students usually appealed for help either by asking verbally for help or through nonverbal actions such as looking at the teacher. In the later part of the study, the teacher very often ignored the appeals for help and that encouraged the students to act on their own. At times this worked as the students were able to solve the problem independently. At other times, the students were unable to solve the problem on their

own, and this was followed by a number of possible interactions. The teacher might approve or support the strategy that the student was attempting; model the use of a strategy, for example, skipping the unknown word and reading to the end of the sentence or paragraph, and then using meaning and/or structural cues to figure out the word; direct the student to take a specific action, for example, prompting the student to use language cues that they already know; provide or give information to the student; ask questions; or a combination of any of the above strategies. In some instances, the teacher would ask the students to suggest a strategy, thereby encouraging the students to take control of the problem-solving process.

The pattern of interaction between teacher and student that I have described exemplifies Tharp and Gallimore's (1988) model of a zone of proximal development (ZPD). They characterized the zone of proximal development as a series of stages through which a learner moves on his way to independence. In the first stage, assistance is provided by more knowledgeable others. This study adds to their work by describing types of assistance and how they are offered. The teacher, as the knowledgeable other, intervened to help the students more often earlier in the study than she did in the later part of the study so that the students' independence increased during the course of the study. This change illustrates what Tharp and Gallimore describe as a "steadily declining plane of adult responsibility for the task performance and a reciprocal increase in the learner's proportion of responsibility" in stage one of the ZPD (Tharp & Gallimore, 1988, p. 35).

Tharp and Gallimore (1988) described the hallmark of the second stage as

“assistance is provided by self” (p. 36). A common feature of self-assistance reported by Tharp and Gallimore is “self-talk” in which an individual talks to him or herself in order to direct his or her actions. I reported evidence of self-talk during independent problem-solving by the students where the students made personal comments to themselves, such as, “no”, “I mean”, “hold on”, which provides support for Tharp and Gallimore’s theory that a transition to assistance being provided by oneself does occur.

In the third stage, Tharp and Gallimore describe performance as automatized and developed. My descriptions of the interactions between teacher and student during the later part of the study seem to support this notion. In the later part of the study, the students seemed to be more selective and flexible in their use of language cues available to them at points of difficulty during reading.

However, beyond the third stage of Tharp and Gallimore’s model of zone of proximal development, it is not possible to see how my findings support their model. In the fourth stage of their model, de-automatization of performance leads the learner back through the zone of proximal development in a recursive loop to begin at either the first stage or the second, and by this process, performance is enhanced, improved and maintained. It is possible that the students moved through this final stage and made recursive loops back through the zone of proximal development, but my data analysis was not directed at examining this phenomenon.

The nature of the interactions studied can be described as a series of complex exchanges between an expert and a novice. I have described the focus of the interactions

as social-construction of meaning - it was important for the students to construct their own understanding of literacy processes with the aid of an expert guide within the context of authentic reading activities. I have also described the complexity of the interactions needed to guide a student in the process - how the teacher and student assumed various roles throughout - and the importance of developing and testing hypotheses on the part of both participants involved in the interaction. In other words, it is critical for scaffolds to be present for learning.

Research Question # 2:

What was the Process in these Interactions by which the Teacher Helped Further the Student's Reading Progress?

The process of helping the students to further their reading abilities in these interactions was a complex one with many facets for which the teacher had primary responsibility. One critical element in the process was determining a child's zone of proximal development (ZPD) and aiming instruction at this level. This was an ongoing and continually changing process. Vygotsky (1978; 1987) suggested that it was necessary to consider both the "actual developmental level" and "potential developmental level" at any given time. The zone of proximal development is the distance between these two levels, and the most effective instruction is that which is aimed at the ZPD.

Throughout the sessions observed and analyzed, the teacher attempted to determine each student's zone of proximal development, though she did not verbalize her actions in those terms. The teacher had built into the sessions a method for her to make

systematic observations of each student's growing reading abilities, and she did this through her one-to-one reading conferences with each child. The teacher's lesson planning book contained observational notes on the reading observed each day, and these notes which included the students' use of language cues and reading strategies gave her information about the "actual developmental level", the level at which each child could function independently with particular texts.

In the teacher's observational notes, "level" was a somewhat fluid concept that seemed to include increasing ability to recognize words, increasing knowledge of cues, more flexible use of multiple strategies for problem-solving, and increasing confidence in the use of different strategies. These observational notes helped the teacher to describe the "actual developmental level", and it was this level that was most often discussed by the teacher. It is worth mentioning that the "actual developmental level" was focused on a child's abilities, that is, what this child was able to do, and not on the child's disabilities, that is, what the child is unable to do. The quest to help further the students' reading abilities began with a search for the children's current understanding and strengths, not deficits and weaknesses. The process does not imply remediation of supposed weaknesses but building new learning on current strengths.

The "potential developmental level", the level at which a child could function with teacher support, was more difficult to determine and less directly considered by the teacher. It seemed that she made informed guesses about this level as she helped the students choose the books to read each day. She also seemed to consider this level as she

problem-solved moment by moment with the students.

This moment by moment process seemed to be much more intuitive, perhaps like a parent interacting with a child learning to talk. There was no prior planning, just actions usually in the form of prompts or giving information based on the particular student's responses to the texts. For example, a student in his or her attempt to read might produce something which made sense in the context of the text, but did not match the word on the page. The teacher would approve the student's sense-making effort but direct the student to consider the letters on the page as well. Determining the zone of proximal development in this situation meant the teacher considering the word and the student's ability to use various strategies, and the teacher deciding what strategies the student would be able to use with teacher support (potential developmental level). If the word was a complicated one, the teacher might decide to just tell it to the student, if not, she would prompt the student to use a known strategy or model the use of a strategy.

The process of determining the zone of proximal development was not always smooth. At times, the teacher-student interactions were smooth and a single prompt or piece of information was enough to achieve the goal. At other times, it involved several attempts. Sometimes a student gave the teacher very clear indications about his or her thinking. At other times, the teacher had to guess student's thinking, give a prompt, evaluate the response, change or adjust her approach, and keep trying. Consequently, some of the interactions were long and included false starts, but persistence was important and usually led to the student being able to solve the problem with the teacher's

support. However, in some of the problem-solving attempts, it was not clear whether a student actually understood and developed competence in an independent problem-solving strategy or if the teacher and student simply found a way to jointly solve that particular problem.

As the students improved their reading abilities, it was becoming more difficult to know exactly how they were solving problems, since more and more of their thinking were invisible, in their heads, and not available for scrutiny by the teacher. Most of the times it seemed clear that they were applying known strategies to read unfamiliar texts, but as they progress it seemed less important for the teacher to know exactly how they were problem-solving, hence, less approving or reinforcing actions by the teacher. It seemed sufficient for the teacher to know that the students could apply various strategies. Perhaps it is important to know more precisely a student's approach to reading in the beginning of literacy tutoring, when the student was less successful and needed teacher support. At that point in time, understanding a student's thinking was an important part of adjusting the task and of helping the student develop new strategies.

Wood, Bruner, and Ross (1976) described the need for the teacher to have two theories - a theory of the "task or problem and how it may be completed" and a theory of "the performance characteristics of the student" (p. 97). These two theories were clearly important for this teacher. Her knowledge of the reading process guided her thinking and framed her responses to the students. She responded in ways based on her beliefs of how reading should be taught, which also shaped her perceptions of the children's learning;

that is, she chose to encourage the development of strategies consistent with proficient reading, offered context cues to help the students with difficult words and not focusing on the word as the basis for reading instruction. Observing and reflecting on the students' growing abilities, and on her teaching, were critical to helping further the students' reading abilities.

Research Question # 3:

What Changes could be Observed in the Students' Reading Strategies?

In order to observe and understand any changes in the students' reading strategies, I carried out a detailed analysis of the teacher-student interactions and examined the students' actions at points of difficulty as they were problem-solving with the teacher's support, and when they were problem-solving independently. By the end of the study period, each student had begun to use various language cues and reading strategies in flexible ways in their problem-solving actions, and they did so with increasing independence. As compared to the early stages of the study when they relied almost exclusively on the teacher for assistance and on graphophonic cues.

In addition to examining the teacher's and students' actions during the interactions, I also compared the Miscue Analysis Procedure I Reader Profile of each student at two points in time - the beginning (week 1) and the end (week 9) of the study. The comparison of the students' Reader Profiles at these points in time revealed a change in the students' use of language cueing systems and reading strategies. Their focus shifted from word recognition to comprehension. The beginning of study Reader Profiles

indicated that the students demonstrated the greatest strengths in the use of graphophonic cues which could be explained by their heavy reliance on word recognition and phonics. Using phonics to identify words precluded the use of other means of word identification. Sounding out a word took precedence over discovering it through its relationship to other words in the sentence or passage.

The Reader Profiles at the end of the study period showed that the students demonstrated substantial growth in categories of meaning construction and grammatical relations. This was evidence of their use of syntactic and semantic cues to read print for meaning.

An explanation for this could be found in the teacher's considerable effort at critical learning moments during their interactions, to guide the students into making use of their intuitive knowledge of language cues. The teacher's approach encouraged reading words for their meaning in relation to the context in which they appear. The teacher stressed reading strategies that followed the natural direction of language acquisition, from function (meaning) to form (print) (Shuy, 1981).

My response to the third research question took up the challenge posed by Cazden (1983) that our task as researchers is to examine whether or not assisted performance does in fact lead to later development. Rogoff (1997) also noted that one of the things a researcher must do in order to understand development from a sociocultural perspective is to examine how a child's participation in an activity has changed over time. In response to these challenges, I attempted to relate the nature of the interactions between teacher

and student to changes in the students' reading behaviors.

I have already alluded to my findings on the nature of the teacher-student interactions in my discussion of question one. I concluded that while it is critical to have scaffolds present for learning, it is even more critical to examine what is done in these scaffolds. Although this was not the case in this study, it is possible for scaffolds to be present in learning situations without the learner moving toward independence.

This goes to the heart of Cazden's (1983) concern about the kind of assistance we are offering children as we scaffold their learning. Is it the kind of assistance that helps the child to answer the teacher's questions or the kind of assistance that will help the child answer similar questions in the future? Though Cazden was referring to a child's development of discourse, her questions are particularly relevant to the literacy tutoring context that I studied.

My findings demonstrate that it is possible to scaffold a child's learning while improving their understanding of the process. This is evident from my conclusion that at the end of the study period, all the students had developed some level of independent problem-solving strategies for reading and were aware of what strategies they were using. They used all language cues at difficulty when the teacher support was declining. I believe what made the difference was the quality of the scaffolds in terms of the kind of actions taken by the teacher.

Although the students were reading materials that were two levels below their grade levels, one can argue that it is not the level at which they were reading that is

important. The important thing is their ability to focus on meaning and use higher-level strategies, that is, using several sources of cues, instead of lower-level strategies, that is, using one cue - letter/sound associations - in isolation in their attempt to read (Clay, 1991).

The reading materials used in the literacy tutoring program seemed too easy for fourth and fifth grade students, however, the teacher was of the opinion that the difference in the reading materials was understandable given that the capabilities and needs of her students were different from students in the regular fourth and fifth grade classrooms. One could argue that the problem with such materials is not one of differentiating but the sacrificing of quality. The stories in the books in the program were too trivial for 10 year olds. They were not stories that 10 year olds could relate to or stories that could be used as a basis for discussion topics.

One-to-one literacy tutoring could provide a particularly appropriate opportunity for the students to learn reading strategies and practice meta-cognition as the below grade level reading materials they work with are not likely to overwhelm the students. While relatively easy reading content allows learners to focus on learning strategies and self-awareness of how and when to use these strategies, care must be taken so as not to sacrifice quality.

Implications

The results of this study have some clearly important implications for both literacy tutors and researchers. For the tutors, these findings suggest that as expert guides, they can take the lead in their interactions with students during literacy tutoring. It is not enough for teachers to provide experiences and expect for students to learn. The teacher can actively support the student since the teacher is the one who knows what the student needs in order to develop the highly important concepts necessary to function successfully in school.

The findings from this study show how the teacher's actions are important in helping students who had experienced difficulty with literacy learning. There are a variety of methods and materials designed to meet the needs of students' literacy learning, but it is too easy to become enamored with the methods and forget about the students. What really matter is attending to the students, observing them enough to know what their thinking is at particular moments, and providing what is needed to help them move forward.

Researchers would also find this study useful. While examining the methods and materials used in literacy instruction is important, how the teacher and student use the material is more critical. Research that evaluates particular literacy tutoring programs but does not address the issue of how the teacher and student use the materials may be missing the critical feature that makes the difference, which determines whether a program is successful or not.

Recommendations for Further Research

The results of this study reflect the need for a better understanding of the interactions that occur between students who have difficulty with literacy learning and the teachers who work with them. Several research questions emerged over the course of the study that need further investigations:

1. What is the communication demands in teacher-student interactions during one-to-one literacy tutoring?
2. What are the social relations in teacher-student interactions during one-to-one literacy tutoring?
3. How important a role does the text play in the interactions? How is the text introduced to the students? How critical is the text introduction to the students' subsequent reading?
4. Is the nature of the interactions unique to a program's theoretical perspective? In other words, is it possible that trained teachers using for example a direct instruction approach might also scaffold and help children develop their reading abilities?
5. Is the nature of the interactions unique to this particular teacher in this study? In other words, would another teacher in the same program show the same pattern of interactions with his or her group of students?

Limitations

There are limitations to every study and obviously in a case study, the issue of generalizability must be addressed. It is not possible to generalize from this study to all teacher-student interactions. This was not the purpose of the study. Pinnell, Lyons, DeFord, Bryk, and Seltzer (1994) conducted an experimental study and reported that the success of a literacy tutoring program is due to at least three important factors: the one-to-one tutoring, the nature of the tutor's training, and the program's instructional approach. Pinnell et al. also noted that there seemed to be something powerful about the interactions between the student and teacher that contributed to the student's success. The purpose of the present study was to take a closer look at the particular interactions of the teacher and students studied in a qualitative manner. Although the findings of this study might only be generalized with great caution to similar situations, the findings are important because they lend support and extend findings from previous research.

The teacher-student interactions were interpreted within a social-constructivist framework for interactional sequences which support the students' construction of literacy knowledge, concepts and strategies. This stance was deliberately chosen as a potential source of new information on literacy learning in students who struggle to read and write, and an opportunity to develop grounded theory on teacher-student interaction as a vital part of literacy learning (or lack of learning) for many students.

It is important to note that my interpretations of the teacher-student interactions form just one perspective as to how the interactions relate to children's literacy learning.

Another important limitation of my study is that I could not account or control for what the students learn outside the tutoring since I had no access to their regular classroom work or their home life.

Conclusion

This investigation of the interactions between teacher and student has strengthened my belief for the need to focus attention on the way in which teachers provide support to students who are having difficulty learning to read and write instead of focusing on the students and conditions within them for being the cause of their slow progress. So that the possibility that students may have had some specific learning disabilities as the cause of their difficulties in learning to read and write should take on less significance. The focus should shift to the kind of support offered or not offered by teachers. If students are not making progress, the question should be asked, "What are the nature of support teachers are given to these students"?

It may be argued that such a perspective places too much burden on teachers if the students are not successful. However, it seems to me that rather than condemning the teachers, this perspective places tremendous power in the hands of the teachers. Schools or programs that limit teachers' power may be dooming themselves to mediocrity. Where it was assumed that students could not learn because of difficulties beyond the teachers' control, for example, an impoverished home life or learning disabilities, it can now be assumed that teachers can have enormous influence in a child's learning. It is time to focus on and try to understand the teacher-student dimensions in education and to learn to

create schools and programs which focus on, and nurture this critical element in education.

APPENDIX A: TEACHER BELIEF PROTOCOL

Teacher Belief Interview

Background:

Teaching experience: How long? Grade levels? Types of Students?

Preservice education: where? special program? reading program?

Student teaching: where? when? How did cooperating teacher teach reading? Any innovative instruction in his/her class?

(Probe quality of student teaching)

Reading and Learning to Read:

When a student enters into 4th grade, what should that student be able to do in terms of reading? (Probe teacher's conviction not what the program expects)

What can a really good reader do? (Differences between good and poor reader qualitatively or quantitatively)

What accounts for the difference between a good and poor reader? (Probe: parents? genetic? good teaching? learning style?)

Is it possible for a teacher or other person to help a poor reader become a good reader?

How would you define reading comprehension?

Reading Instruction:

Could you describe the way you teach reading comprehension?

(Probe: typical day - do they read out loud?)

What is your objective when teaching reading comprehension?

(Probe: vocabulary? remembering ideas? memorizing facts?)

Questioning students: Why? What is a good response? What is a poor response? What is a creative response?

Where did you learn to teach the way you teach?

Have you ever had in-service or taken graduate courses on how to teach?

Have you ever tried something different? Why? What happened?

What indicates to you that a lesson is going poorly?

How is teaching reading different from math or science? from teaching writing? (Probe: more/less difficult)

The Students:

How would you describe the students in your program?

Do they have a pretty good chance of making it through school?

How would you describe a student who is having great difficulty in reading? (Probe: cause, what is teaching doing about it?)

How would you describe a student who is slightly behind - not terrific, but not a real problem? (Probe on same)

How would you describe a student who is really doing well?

The Program:

Is there a particular way of teaching reading comprehension in this program?

Do you know what other teachers in the program are doing? How do you know?

Do you observe other teachers in this program?

Do you exchange materials, ideas, or communicate with other teachers in this program?

Personal Reading:

What types of things do you read when you have a chance?

APPENDIX B: THE READING INTERVIEW

APPENDIX C: SUBJECT'S CONSENT FORM (TEACHER)

**SUBJECT'S CONSENT FORM
(TEACHER)**

134

Title: Teacher-Student Interaction during one-to-one Literacy Tutoring

I AM BEING ASKED TO READ THE FOLLOWING MATERIAL TO ENSURE THAT I AM INFORMED OF THE NATURE OF THIS RESEARCH STUDY AND OF HOW I WILL PARTICIPATE IN IT, IF I CONSENT TO DO SO. SIGNING THIS FORM WILL INDICATE THAT I HAVE BEEN SO INFORMED AND THAT I GIVE MY CONSENT. FEDERAL REGULATIONS REQUIRE WRITTEN INFORMED CONSENT PRIOR TO PARTICIPATION IN THIS RESEARCH STUDY SO THAT I CAN KNOW THE NATURE AND RISKS OF MY PARTICIPATION AND CAN DECIDE TO PARTICIPATE OR NOT PARTICIPATE IN A FREE AND INFORMED MANNER.

PURPOSE

I am being invited to participate voluntarily in the above-titled research project. This research is being conducted to fulfill the requirements for a doctoral dissertation in Reading at the University of Arizona. The purpose of this study is to describe teacher and students' interaction during one-to-one literacy instruction and relate them to the students' changing reading behaviors.

SELECTION CRITERIA

I am being invited to participate because I have been recommended as an effective literacy teacher by the LAP Coordinator. Approximately ten subjects will be enrolled in this study.

PROCEDURES

If I agree to participate, I will consent to the following:

I will be observed while working one-to-one with a student and in a group with my students. The observation will be done once a week for the rest of the semester. During the observations the researcher will take notes on my interactions with the students. As part of the study, I will be interviewed by the researcher, and my answers will be audio taped. I understand that I do not have to answer questions that I am uncomfortable with. Photocopies of my lesson plans, running records, and materials used in my lessons will be collected. The sessions will be audio and video taped. The tapes will not be shared in any way with the school for evaluation purposes. The tapes will be kept in a secure place and destroyed after the study is completed.

RISKS

There are no known or expected risks from participating in this study.

BENEFITS

I understand that this study may or may not be of direct benefit to me, but the knowledge gained may be of benefit to society.

CONFIDENTIALITY

I understand that any information obtained as a result of my participation in this study will be kept confidential. My name or any information from which I might be identified will never be used in

any publications that result from this research without my consent. Pseudonyms will be used at all times to protect the confidentiality of the material collected.

PARTICIPATION COSTS AND SUBJECT COMPENSATION

There will be no cost to me and no compensation for the participants in this study.

CONTACTS

I can obtain further information from the principal investigator Idriss Abdoulaye, Ph.D. Candidate at (520) 882-5425. If I have questions concerning my rights as a research subject, I may call the Human Subjects Committee at (520) 626-6721.

AUTHORIZATION

BEFORE GIVING MY CONSENT BY SIGNING THIS FORM, THE METHODS, INCONVENIENCES, RISKS, AND BENEFITS HAVE BEEN EXPLAINED TO ME AND MY QUESTIONS HAVE BEEN ANSWERED. I MAY ASK QUESTIONS AT ANY TIME AND I AM FREE TO WITHDRAW FROM THE PROJECT AT ANY TIME WITHOUT CAUSING BAD FEELINGS. MY PARTICIPATION IN THIS PROJECT MAY BE ENDED BY THE INVESTIGATOR FOR REASONS THAT WOULD BE EXPLAINED. NEW INFORMATION DEVELOPED DURING THE COURSE OF THIS STUDY WHICH MAY AFFECT MY WILLINGNESS TO CONTINUE IN THIS RESEARCH PROJECT WILL BE GIVEN TO ME AS IT BECOMES AVAILABLE. THIS CONSENT FORM WILL BE FILED IN AN AREA DESIGNATED BY HUMAN SUBJECTS COMMITTEE WITH ACCESS RESTRICTED TO THE PRINCIPAL INVESTIGATOR, IDRIS ABDOLAYE OR AUTHORIZED REPRESENTATIVE OF THE LANGUAGE, READING AND CULTURE DEPARTMENT. I DO NOT GIVE UP ANY OF MY LEGAL RIGHTS BY SIGNING THIS FORM. A COPY OF THIS SIGNED CONSENT FORM WILL BE GIVEN TO ME.

Subject's Signature

Date

INVESTIGATOR'S AFFIDAVIT

I have carefully explained to the subject the nature of the above project. I hereby certify that to the best of my knowledge the person who is signing this consent form understands clearly the nature, demands, benefits, and risks involved in his/her participation and his/her signature is legally valid. A medical problem or language or educational barrier has not precluded this understanding.

Signature of Investigator

Date

APPENDIX D: SUBJECT'S CONSENT FORM (PARENT)

**SUBJECT'S CONSENT FORM
(PARENT)**

137

Title: Teacher-Student Interaction during one-to-one Literacy Tutoring

I AM BEING ASKED TO READ THE FOLLOWING MATERIAL TO ENSURE THAT I AM INFORMED OF THE NATURE OF THIS RESEARCH STUDY AND OF HOW MY CHILD WILL PARTICIPATE IN IT, IF I CONSENT TO ALLOW MY CHILD TO DO SO. SIGNING THIS FORM WILL INDICATE THAT I HAVE BEEN SO INFORMED AND THAT I GIVE MY CONSENT. FEDERAL REGULATIONS REQUIRE WRITTEN INFORMED CONSENT PRIOR TO MY CHILD'S PARTICIPATION IN THIS RESEARCH STUDY SO THAT I CAN KNOW THE NATURE AND RISKS OF MY CHILD'S PARTICIPATION AND CAN DECIDE TO ALLOW MY CHILD TO PARTICIPATE OR NOT PARTICIPATE IN A FREE AND INFORMED MANNER.

PURPOSE

I am being asked to allow my child to participate voluntarily in the above-titled research project. This research is being conducted to fulfill the requirements for a doctoral dissertation in Reading at the University of Arizona. The purpose of this study is to describe teacher and students' interaction during one-to-one literacy instruction and relate them to the students' changing reading behaviors.

SELECTION CRITERIA

My child is being invited to participate because my child's LAP teacher has been selected to take part in this study, and my child is one of her students this semester. Approximately ten subjects will be enrolled in this study.

PROCEDURES

If I agree to allow my child to participate, I will consent to the following: My child will be observed while working with the LAP teacher, and while my child works in a group with other children. The observation will be done once a week for the rest of the semester. The sessions will be audio and video taped. The tapes will not be shared in any way with the school for evaluation purposes. The tapes will be kept in a secure place and destroyed after the study is completed.

RISKS

There are no known or expected risks from participating in this study.

BENEFITS

I understand that this study may or may not be of direct benefit to my child, but the knowledge gained may be of benefit to society.

CONFIDENTIALITY

I understand that any information obtained as a result of my child's participation in this study will be kept confidential. My child's name or any information from which my child might be identified

will never be used in any publications that result from this research without my consent.
Pseudonyms will be used at all times to protect the confidentiality of the material collected.

PARTICIPATION COSTS AND SUBJECT COMPENSATION

There will be no cost to me and no compensation for the participants in this study.

CONTACTS

I can obtain further information from the principal investigator Idriss Abdoulaye, Ph.D. Candidate at (520) 882-5425. If I have questions concerning my child's rights as a research subject, I may call the Human Subjects Committee at (520) 626-6721.

AUTHORIZATION

BEFORE GIVING MY CONSENT BY SIGNING THIS FORM, THE METHODS, INCONVENIENCES, RISKS, AND BENEFITS HAVE BEEN EXPLAINED TO ME AND MY QUESTIONS HAVE BEEN ANSWERED. I MAY ASK QUESTIONS AT ANY TIME AND I AM FREE TO WITHDRAW MY CHILD FROM THE PROJECT AT ANY TIME WITHOUT CAUSING BAD FEELINGS. MY CHILD'S PARTICIPATION IN THIS PROJECT MAY BE ENDED BY THE INVESTIGATOR FOR REASONS THAT WOULD BE EXPLAINED. NEW INFORMATION DEVELOPED DURING THE COURSE OF THIS STUDY WHICH MAY AFFECT MY WILLINGNESS TO ALLOW MY CHILD TO CONTINUE IN THIS RESEARCH PROJECT WILL BE GIVEN TO ME AS IT BECOMES AVAILABLE. THIS CONSENT FORM WILL BE FILED IN AN AREA DESIGNATED BY HUMAN SUBJECTS COMMITTEE WITH ACCESS RESTRICTED TO THE PRINCIPAL INVESTIGATOR, IDRIS ABDOLAYE OR AUTHORIZED REPRESENTATIVE OF THE LANGUAGE, READING AND CULTURE DEPARTMENT. I DO NOT GIVE UP ANY OF MY LEGAL RIGHTS BY SIGNING THIS FORM. A COPY OF THIS SIGNED CONSENT FORM WILL BE GIVEN TO ME.

Signature of Parent or Legal Guardian

Date

INVESTIGATOR'S AFFIDAVIT

I have carefully explained to the subject the nature of the above project. I hereby certify that to the best of my knowledge the person who is signing this consent form understands clearly the nature, demands, benefits, and risks involved in his/her child's participation and his/her signature is legally valid. A medical problem or language or educational barrier has not precluded this understanding.

Signature of Investigator

Date

APPENDIX E: MINOR SUBJECT'S CONSENT FORM

Minor Subject's Assent Form

Teacher-Student Interaction During Literacy Tutoring

Your mother/father has told me it was okay for you to take part in a study about how young children learn to read and write in LAP. You will be videotaped while working with your LAP teacher. You do not have to do this. No one will be mad at you if you refuse to do this or decide to quit. Do you understand? Is it OK?

Subject's Name and Signature

Date

Investigator's Signature

Date

APPENDIX F: MISCUE ANALYSIS PROCEDURE I CODING FORMS

MISCUE ANALYSIS PROCEDURE I CODING FORM

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READER		DATE 4/85		1		SYNTACTIC ACCEPTABILITY		2		3		4		4		5		6	
TEACHER Kayie		AGE/ GRADE 10/ 4th		SCHOOL		2		2		3		4		4		5		6	
SELECTION The Trip to the Zoo		The Surprise				1		2		3		4		4		5		6	
LINE No./MISCUE No.	READER	TEXT	1	2	3	4	MEANING CONSTRUCTION		GRAMMATICAL RELATIONSHIPS		GRAPHIC SIMILARITY		SOUND SIMILARITY						
1	waited	special	Y	Y	Y	Y	No Loss	Strength	Weakness	H	H								
2	wanted	wanted	Y	Y	Y	Y	Partial Loss	Partial Strength	Weakness	S	S								
3	beast	beast	Y	Y	Y	Y	Loss	Overcorrection	Weakness	N	N								
4	waxed	waxed	Y	Y	Y	Y		Weakness	Weakness	N	N								
5	angered	angered	Y	Y	Y	Y		Weakness	Weakness	N	N								
6	angered	angered	Y	Y	Y	Y		Weakness	Weakness	N	N								
7	repent	repent	Y	Y	Y	Y		Weakness	Weakness	N	N								
8	repent	repent	Y	Y	Y	Y		Weakness	Weakness	N	N								
9	repent	repent	Y	Y	Y	Y		Weakness	Weakness	N	N								
10	repent	repent	Y	Y	Y	Y		Weakness	Weakness	N	N								
11	repent	repent	Y	Y	Y	Y		Weakness	Weakness	N	N								
12	wanted	wanted	Y	Y	Y	Y		Weakness	Weakness	N	N								
13	wanted	wanted	Y	Y	Y	Y		Weakness	Weakness	N	N								
14	wanted	wanted	Y	Y	Y	Y		Weakness	Weakness	N	N								
15	wanted	wanted	Y	Y	Y	Y		Weakness	Weakness	N	N								
16	wanted	wanted	Y	Y	Y	Y		Weakness	Weakness	N	N								
17	wanted	wanted	Y	Y	Y	Y		Weakness	Weakness	N	N								
18	wanted	wanted	Y	Y	Y	Y		Weakness	Weakness	N	N								
19	wanted	wanted	Y	Y	Y	Y		Weakness	Weakness	N	N								
20	wanted	wanted	Y	Y	Y	Y		Weakness	Weakness	N	N								
21	wanted	wanted	Y	Y	Y	Y		Weakness	Weakness	N	N								
22	wanted	wanted	Y	Y	Y	Y		Weakness	Weakness	N	N								
23	wanted	wanted	Y	Y	Y	Y		Weakness	Weakness	N	N								
24	wanted	wanted	Y	Y	Y	Y		Weakness	Weakness	N	N								
25	wanted	wanted	Y	Y	Y	Y		Weakness	Weakness	N	N								
a. TOTAL MISCUSES		COLUMN TOTAL		PATTERN TOTAL		PERCENTAGE													
b. TOTAL WORDS																			
a ÷ b x 100 = MPHW																			

(Goodman, Watson, Burke)

(Goodman, Watson, Burke)

MISCUE ANALYSIS PROCEDURE I CODING FORM

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READER		DATE	TEACHER		AGE/	GRADE	SCHOOL	SELECTION		1	2	3	4	MEANING CONSTRUCTION				GRAMMATICAL RELATIONSHIPS				GRAPHIC SIMILARITY		SOUND SIMILARITY																																							
READER		TEXT	SYNTACTIC ACCEPTABILITY		SEMANTIC ACCEPTABILITY		MEANING CHANGE		CORRECTION		MEANING CONSTRUCTION				GRAMMATICAL RELATIONSHIPS				GRAPHIC SIMILARITY		SOUND SIMILARITY																																										
LINE No./MISCUE No.		READER	TEXT	1	2	3	4	No Loss	Partial Loss	Loss	Strength	Partial Strength	Overcorrection	Weakness	H	S	N	H	S	N	H	S	N																																								
26	5	5	5	Y	Y	N	Z	✓	✓	✓	✓																																																				
27	5	5	5	Y	Y	N	Z	✓	✓	✓	✓																																																				
28	5	5	5	Y	Y	N	Z	✓	✓	✓	✓																																																				
29	5	5	5	Y	Y	N	Z	✓	✓	✓	✓																																																				
30	5	5	5	Y	Y	N	Z	✓	✓	✓	✓																																																				
31	5	5	5	Y	Y	N	Z	✓	✓	✓	✓																																																				
32	5	5	5	Y	Y	N	Z	✓	✓	✓	✓																																																				
33	5	5	5	Y	Y	N	Z	✓	✓	✓	✓																																																				
34	5	5	5	Y	Y	N	Z	✓	✓	✓	✓																																																				
35	5	5	5	Y	Y	N	Z	✓	✓	✓	✓																																																				
36	5	5	5	Y	Y	N	Z	✓	✓	✓	✓																																																				
37	5	5	5	Y	Y	N	Z	✓	✓	✓	✓																																																				
38	5	5	5	Y	Y	N	Z	✓	✓	✓	✓																																																				
39	5	5	5	Y	Y	N	Z	✓	✓	✓	✓																																																				
40	5	5	5	Y	Y	N	Z	✓	✓	✓	✓																																																				
a. TOTAL MISCUES 40				COLUMN TOTAL				10				9				21				11				2				4				33				13				12				1				14				11											
b. TOTAL WORDS 529				PATTERN TOTAL				40				40				40				40				40				40				40				40				40				40				40															
a ÷ b x 100 = MPHW 7.56				PERCENTAGE				25				22				53				27				5				10				58				50				14				6				4				54				14				4			

MISCUE ANALYSIS PROCEDURE I CODING FORM

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(Goodman, Watson, Burke)

READER <u>Nike</u>		DATE <u>4/25</u>	
TEACHER <u>Katie</u>		AGE/ GRADE <u>10/5th</u>	
SELECTION <u>The Trip to the Zoo</u>		SCHOOL _____	
TEXT			
LINE No./MISCUE No.	READER	TEXT	
1	spring	surprise	1
2	grandma	grandmother	2
3	training	trying	3
4	that	what	4
5	sunpress	sunrise	5
6	spelled	special	6
7	pressed	present	7
8	wanted	want	8
9	was	saw	9
10	street	sweater	10
11	I	it	11
12	spise	special	12
13	sore	skates	13
14	man	store	14
15	grandma	mother	15
16	25 cents	grandmother	16
17	with them home	\$2.5	17
18	the box	penne with them	18
19	hear	heard	19
20	sun	sign	20
21	man	ma ma	21
22	went	spectal	22
23		wanted	23
24			24
25			25
a. TOTAL MISCUES _____		COLUMN TOTAL _____	
b. TOTAL WORDS _____		PATTERN TOTAL _____	
a ÷ b x 100 = MPHW _____		PERCENTAGE _____	
		1 SYNTACTIC ACCEPTABILITY	
		2 SEMANTIC ACCEPTABILITY	
		3 MEANING CHANGE	
		4 CORRECTION	
		See 2, 3, 4	
		MEANING CONSTRUCTION	
		No Loss	
		Partial Loss	
		Loss	
		See 1, 2, 4	
		GRAMMATICAL RELATIONSHIPS	
		Strength	
		Partial Strength	
		Overcorrection	
		Weakness	
		H S N H S N	
		GRAPHIC SIMILARITY	
		H S N H S N	
		SOUND SIMILARITY	
		H S N H S N	

(Goodman, Watson, Burke)

MISCUE ANALYSIS PROCEDURE I CODING FORM																						
READER <u>Mike</u>		DATE <u>4/25</u>																				
TEACHER <u>Katie</u>		AGE/ GRADE <u>10/ 5th</u>		SCHOOL																		
SELECTION <u>The Trip to the Zoo</u> <u>The Surprise</u>																						
LINE No./MISCUE No.	READER	TEXT	1	2	3	4	MEANING CONSTRUCTION			GRAMMATICAL RELATIONSHIPS			GRAPHIC SIMILARITY		SOUND SIMILARITY							
			SYNTACTIC ACCEPTABILITY	SEMANTIC ACCEPTABILITY	MEANING CHANGE	CORRECTION	No Loss	Partial Loss	Loss	Strength	Partial Strength	Overcorrection	Weakness	H	S	N	H	S	N			
26	mis	her	Y	Y	Y	Y	✓			✓												
27		chimps	N	N	—	Y	✓			✓												
28		embargo	Y	Y	—	Y	✓			✓												
29	trade	traced	Y	Y	—	Y	✓			✓												
30	are	were	Y	Y	—	Y	✓			✓												
a. TOTAL MISCSUES <u>30</u>			COLUMN TOTAL			15			7			8			15		8		16		2	
b. TOTAL WORDS <u>529</u>			PATTERN TOTAL			30			40			30			25		32		16		25	
a + b x 100 = MPHW <u>5.67</u>			PERCENTAGE			50			73			77			60		32		64		28	

MISCUE ANALYSIS PROCEDURE 1 CODING FORM

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READER	AGE/ GRADE	DATE	TEACHER	SCHOOL	SELECTION	1	2	3	4	MEANING CONSTRUCTION			GRAMMATICAL RELATIONSHIPS			GRAPHIC SIMILARITY			SOUND SIMILARITY				
F10	10	4/26	Katie	4th	Father's New Game					No Loss	Partial Loss	Loss	Strength	Partial Strength	Overcorrection	Weakness	H	S	N	H	S	N	
26	I	FE				Y	0	N	Y	✓			✓							✓			
27	her	his				Y	0	N	Y	✓			✓							✓			
28	the	they				Y	0	N	Y	✓			✓							✓			
29	many	many				Y	0	N	Y	✓			✓							✓			
30	you	you'll				Y	0	N	Y	✓			✓							✓			
31	after	around				Y	0	N	Y	✓			✓							✓			
32	store	found				Y	0	N	Y	✓			✓							✓			
33	then	there				Y	0	N	Y	✓			✓							✓			
34	made	many				Y	0	N	Y	✓			✓							✓			
35	will	word				Y	0	N	Y	✓			✓							✓			
36	any	an				Y	0	N	Y	✓			✓							✓			
37	wants	wanted				Y	0	N	Y	✓			✓							✓			
38	maybe	maybe				Y	0	N	Y	✓			✓							✓			
39	closed	could				Y	0	N	Y	✓			✓							✓			
40	what	what				Y	0	N	Y	✓			✓							✓			
41	try	trade				Y	0	N	Y	✓			✓							✓			
42	letting	later				Y	0	N	Y	✓			✓							✓			
43	square	idea				Y	0	N	Y	✓			✓							✓			
44	want	sure				Y	0	N	Y	✓			✓							✓			
45	want	wanted				Y	0	N	Y	✓			✓							✓			
46	out	outside				Y	0	N	Y	✓			✓							✓			
47	start	washer				Y	0	N	Y	✓			✓							✓			
48	some	something				Y	0	N	Y	✓			✓							✓			
49						Y	0	N	Y	✓			✓							✓			
50						Y	0	N	Y	✓			✓							✓			
a. TOTAL MISCUSES																							
b. TOTAL WORDS																							
a ÷ b x 100 = MPH%																							

(Goodman, Watson, Burke)

MISCUE ANALYSIS PROCEDURE I CODING FORM

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READER		AGE/ GRADE	DATE	TEACHER		GRADE	SCHOOL	SELECTION		1	2	3	4	MEANING CONSTRUCTION			GRAMMATICAL RELATIONSHIPS			GRAPHIC SIMILARITY		SOUND SIMILARITY				
LINE No./MISCUE No.	READER	TEXT	1	2	3	4	5	6	SYNTACTIC ACCEPTABILITY	SEMANTIC ACCEPTABILITY	MEANING CHANGE	CORRECTION	No Loss	Partial Loss	Loss	Strength	Partial Strength	Overcorrection	Weakness	H	S	N	H	S	N	
51	piece	premise	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
52	piece	pieces	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
53	piece	else	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
54	piece	basement	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
55	piece	noticed	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
56	let	light	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
57	you	yourself	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
58	you	then	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
59	you	thought	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
60	you	anything	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
61	you	yelling	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
62	home	house	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
63	home	clue	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
64	home	teped	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
65	home	refrigerator	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
66	home	search	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
67	home	wrote	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
68	home	forgot	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
69	home	hat	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
70	home	sorry	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
a. TOTAL MISCUES		70	15		15		17		14		0		39		37		12		5		33		16		5	
b. TOTAL WORDS		473	70		70		70		70		70		54		54		54		54		54		54		54	
a + b x 100 = MPHw		14.80	21		21		24		20		20		56		69		22		9		61		30		9	

(Goodman, Watson, Burke)

MISCUE ANALYSIS PROCEDURE I CODING FORM

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READER		AGE/10	SCHOOL	DATE	1	2	3	4	MEANING CONSTRUCTION			GRAMMATICAL RELATIONSHIPS			GRAPHIC SIMILARITY		SOUND SIMILARITY					
TEACHER		GRADE			SYNTACTIC ACCEPTABILITY	SEMANTIC ACCEPTABILITY	MEANING CHANGE	CORRECTION	No Loss	Partial Loss	Loss	Strength	Partial Strength	Overcorrection	Weakness	H	S	N	H	S	N	
Bill		10		4/24																		
Katie		5th																				
The Trip to the Zoo																						
The Surprise																						
LINE No./MISCUE No.	READER	TEXT																				
1	Summer	Sunny			✓	✓	✓	✓	✓			✓				✓			✓			
2	Cart	Carlos			✓	✓	✓	✓	✓			✓				✓			✓			
3	Maxin	Mary			✓	✓	✓	✓	✓			✓				✓			✓			
4	Wager	Wager			✓	✓	✓	✓	✓			✓				✓			✓			
5	Class	Class			✓	✓	✓	✓	✓			✓				✓			✓			
6	Surprise	Special			✓	✓	✓	✓	✓			✓				✓			✓			
7	Class	Classes			✓	✓	✓	✓	✓			✓				✓			✓			
8	Them	When			✓	✓	✓	✓	✓			✓				✓			✓			
9	in the bus	on the bus			✓	✓	✓	✓	✓			✓				✓			✓			
10	looked	talked			✓	✓	✓	✓	✓			✓				✓			✓			
11	looking	lion king			✓	✓	✓	✓	✓			✓				✓			✓			
12	best	best			✓	✓	✓	✓	✓			✓				✓			✓			
13	Angel	Angela			✓	✓	✓	✓	✓			✓				✓			✓			
14	Chaps	Chimps			✓	✓	✓	✓	✓			✓				✓			✓			
15		thought			✓	✓	✓	✓	✓			✓				✓			✓			
16		get			✓	✓	✓	✓	✓			✓				✓			✓			
17	What	when			✓	✓	✓	✓	✓			✓				✓			✓			
18	drove	dyed			✓	✓	✓	✓	✓			✓				✓			✓			
19	kids	children			✓	✓	✓	✓	✓			✓				✓			✓			
20	monkey's	monkeys			✓	✓	✓	✓	✓			✓				✓			✓			
21	champs	chimps			✓	✓	✓	✓	✓			✓				✓			✓			
22	wouldn't	would			✓	✓	✓	✓	✓			✓				✓			✓			
23	pass	pace			✓	✓	✓	✓	✓			✓				✓			✓			
24	from	front			✓	✓	✓	✓	✓			✓				✓			✓			
25	careful	carefully			✓	✓	✓	✓	✓			✓				✓			✓			
a. TOTAL MISCUES					✓	✓	✓	✓	✓			✓				✓			✓			
b. TOTAL WORDS					✓	✓	✓	✓	✓			✓				✓			✓			
a + b x 100 = MPHW					✓	✓	✓	✓	✓			✓				✓			✓			

(Goodman, Watson, Burke)

MISCUE ANALYSIS PROCEDURE I CODING FORM

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READER		AGE/	DATE
Bill		10	4/21/
TEACHER		GRADE	SCHOOL
Katie		5th	
SELECTION			
The Trip to the Zoo			
LINE No./MISCUE No.			
READER	TEXT	1	2
26	don't	didn't	
27	growing	grows	
28	family	finally	
29	waged	worried	
30	hate	noticed	
31	lead	what	
32	that	entrance	
33		thought	
34	summer	surprise	
35	Jack	Jackie	
36		decide	
37	she	they	
38	super	surprise	
39		special	
40	swimmer	swearer	
41		special	
42	surprising	ice skates	
43	ice cream	skates	
44		start	
45	then	when	
46	stare	stare	
47		didn't	
48	in her house	in a house	
49		in a house	
50		in a house	
a. TOTAL MISCUES			
b. TOTAL WORDS			
a ÷ b x 100 = MPHW			
COLUMN TOTAL		PATTERN TOTAL	
		PERCENTAGE	
		CORRECTION	
		1	2
		MEANING CONSTRUCTION	
		3	4
		GRAMMATICAL RELATIONSHIPS	
		5	6
		GRAPHIC SIMILARITY	
		H	S
		SOUND SIMILARITY	
		H	S
		N	N

REFERENCES

- Au, K.H., & Mason, J.M. (1981). Social organizational factors in learning to read: The balance of rights hypothesis. *Reading Research Quarterly, 17* (3), 115-151.
- Betts, E.A. (1957). *Foundations of reading instruction*. New York: American Book Company.
- Bogdan, R.C., & Biklen, S.K. (1992). *Qualitative research for education: An introduction to theory and methods*. Boston, MA: Allyn and Bacon.
- Brown, A.L., Campione, J.C., & Day, J.D. (1981). Learning to learn: On training students to learn from texts. *Educational Researcher, 2*, 14-21.
- Bruner, J.S. (1985). Vygotsky: A historical and conceptual perspective. In J.V. Wertsch, (Ed.), *Culture, communication, and cognition: Vygotskian perspectives*. New York, NY: Cambridge University Press.
- Cazden, C. (1983). Adult assistance to language development: Scaffolds, models and direct instruction. In R.P. Parker (Ed.), *Developing literacy: Young children's use of language*. (pp. 3-18). Newark, DE: International Reading Association.
- Cazden, C. (2001). *Classroom discourse: The language of teaching and learning*. Portsmouth, NH: Heinemann.
- Clay, M.M. (1991). *Becoming literate: The construction of inner control*. Portsmouth, NH: Heinemann.
- Cohen, P.A., Kulik, J.A., & Kulik, C.C. (1982). Educational outcomes of tutoring: A meta-analysis of findings. *American Educational Research Journal, 19*, 237-248.

- Cole, M. (1985). The zone of proximal development: Where culture and cognition create each other. In J.V. Wertsch (Ed.), *Culture, communication and cognition: Vygotskian perspectives*. New York, NY: Cambridge University Press.
- DeFord, D.E., Lyons, C.A., & Pinnell, G.S. (Eds.) (1991). *Bridges to literacy: Learning from Reading Recovery*. Portsmouth, NH: Heinemann.
- Erickson, F. (1986). Qualitative methods in research in teaching. In M.C. Wittrock (Ed.), *Handbook on research on teaching*. White Plains, NY: Longman.
- Farr, M. (1991). Dialects, culture, and teaching the English language arts. In J. Flood, J.M. Hensen, D. Lapp, & J.R. Squire (Eds.), *Handbook on research on teaching the English language arts*. New York, NY: Macmillan Publishing.
- Flavell, J.H. (1976). Metacognitive aspects of problem solving. In L.B. Resnick (Ed.), *The nature of intelligence*. (pp. 231-235). Hillsdale, NJ: Erlbaum.
- Garner, R. (1987). *Metacognition and reading comprehension*. Norwood, NJ: Ablex Publishing Corporation.
- Gaskins, I., & Elliot, T. (1991). *Implementing cognitive strategy instruction across the school*. Media, PA: Brookline Books.
- Gee, J.S. (1989). Literacy, discourse, and linguistics: Introduction. *Journal of Education*, 17 (1), 5-17.
- Glesne, C., & Peshkin, A. (1992). *Becoming qualitative researchers*. White Plains, NY: Longman.

- Goodman, K.S. (1967). Reading: A psycholinguistic guessing game. *Journal of the Reading Specialist*. 126-135.
- Goodman, K.S. (1969). Analysis of oral reading miscues: applied psycholinguistics. *Reading Research Quarterly*, 5, 9-30.
- Goodman, K.S. (1982a). The reading process. In F. Gollasch, (Ed.), *Language and literacy: The selected writings of Kenneth S. Goodman*. (pp. 5-18). Boston, MA: Routledge & Kegan Paul.
- Goodman, K.S. (1982b). What is universal about the reading process. In F. Gollasch (Ed.), *Language and literacy: The selected writings of Kenneth S. Goodman*. (pp. 71-76) Boston, MA: Routledge & Kegan Paul.
- Goodman, Y.M., & Goodman, K.S. (1990). Vygotsky in a whole language perspective. In L.C. Moll (Ed.), *Vygotsky and education*. Cambridge, MA: Cambridge University Press.
- Goodman, Y.M., Watson, D.J., & Burke, C.L. (1987). *Reading miscue inventory: Alternative procedures*. Katonah, NY: Richard C. Owen.
- Heath, S.C. (1983). *Ways with words: Language, life, and work in community and classroom*. New York, NY: Cambridge University Press.
- Hoffman, J.V. (1979). On providing feedback to reading miscues. *Reading World*, 342-350.

- Hoffman, J.V., & Baker, C. (1980). *Observing communication during oral reading instruction: A critique of past research and a report on the development of a taxonomy of behaviors useful in field research*. Paper presented at the XXX International Conference on Communication: Acapulco, Mexico.
- Holmes, C.T., & Mathews, K.M. (1984). The effects of non-promotion on elementary and junior high school pupils: A meta-analysis. *Review of Educational Research*, 54, 225-236.
- Juel, C. (1996). What makes literacy tutoring effective? *Reading Research Quarterly*, 31, 268-289.
- Leslie, L., & Caldwell, J. (1995). *Qualitative reading inventory - II*. New York, NY: Harper Collins College Publishers.
- Marshall, C.M., & Rossman, C.B. (1995). *Designing qualitative research*. Thousand Oaks, CA: Sage.
- Mehan, H. (1979). *Learning lessons: Social organization in the classroom*. Cambridge, MA: Harvard University Press.
- Merriam, S.B. (1988). *Case study research in education: A qualitative approach*. San Francisco, CA: Jossey-Bass Publishers.
- Pearson, P.D., & Johnson, D.D. (1978). *Teaching reading comprehension*. New York, NY: Holt, Rinehart, & Winston.

- Philips, S.U. (1972). Participant structures and communicative competence: Warm Springs children in community and classroom. In C. Cazden, U. John, & D. Hymes (Eds.), *Functions of language in the classroom*. New York, NY: Teachers College Press.
- Pinnell, G.S. (1993). Teaching for problem-solving in reading. *Reading and Writing Quarterly: Overcoming Learning Difficulties*, 9, 289-305.
- Pinnell, G.S., Lyons, C.A., DeFord, D.E., Bryk, A.S., & Seltzer, M. (1994). Comparing instructional models for the literacy education of high-risk first graders. *Reading Research Quarterly*, 29, 9-39.
- Rasinski, T. (1995). On the effects of Reading Recovery. *Reading Research Quarterly*, 30, 264-270.
- Richardson, V., Anders, P., Tidwell, D., & Lloyd, C. (1991). The relationship between teachers' beliefs and practices in reading comprehension instruction. *American Educational Research Journal*, 28 (3), 559-586.
- Rogoff, B. (1997). Observing sociocultural activity on three planes: Participatory appropriation, guided participation, and apprenticeship. In J.V. Wertsch, P. Del Rio, & A. Alvarez (Eds.), *Sociocultural studies of mind* (pp. 139-164). New York, NY: Cambridge University Press.
- Ruddell, R.B. (1965). The effects of the similarity of oral and written patterns of language structure on reading comprehension. *Elementary English*, 45, 403-410.

- Samuels, S.J. (1988). Decoding and automaticity: Helping poor readers become automatic at word recognition. *The Reading Teacher*, 41, 756-760.
- Shanahan, T. (1998). On the effectiveness and limitations of tutoring in reading. In P.D. Pearson & A. Iran-Nejad (Eds.), *Review of Research in Education*, 23. Washington, D.C.: AERA.
- Shanahan, T., & Barr, R. (1995). Reading Recovery: An independent evaluation of the effects of an early instructional intervention for at-risk learners. *Reading Research Quarterly*, 30, 958-997.
- Sinclair, J., & Coulthard, R. (1975). *Toward an analysis of discourse*. New York, NY: Oxford University Press.
- Singleton, R.A., & Straits, B.C. (1999). *Approaches to social research*. (3rd ed.), New York, NY: Oxford University Press.
- Shuy, R.W. (1981). A holistic view of language. *Research in the teaching of English*, 15, 101-111.
- Tharp, R.G., & Gallimore, R. (1988). *Rousing minds to life: Teaching, learning and schooling in social context*. New York, NY: Cambridge University Press.
- Vygotsky, L.S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Vygotsky, L.S. (1987). Thinking and speech. In R.W. Rieber & A.S. Carton (Eds.), *The collected works of L.S. Vygotsky* (vol. 1). New York, NY: Plenum.

- Wasik, B.A., Slavin, R.E. (1993). Preventing early reading failure with one-to-one tutoring: A review of five programs. *Reading Research Quarterly*, 28, 178-200.
- Wertsch, J.V. (1984). The creation of context in joint problem solving. In B. Rogoff & J. Lave (Eds.), *Everyday cognition: Its development in social contexts*. Cambridge, MA: Harvard University Press.
- Wertsch, J.V. (1985). *Vygotsky and the social formation of mind*. Cambridge, MA: Harvard University Press.
- Wertsch, J.V. (1991). The need for action in sociocultural research. In J. Wertsch, P. Del Rio, & A. Alvarez (Eds.), *Sociocultural studies of the mind* (pp. 56-74). New York, NY: Cambridge University Press.
- Wilkinson, L.C. (1982). *Communicating in the classroom*. New York, NY: Academic.
- Wong, S., Groth, L., O'Flahavan, J., & Gale, S., Kelly, G., Leeds, S., Regetz, J., & O'Malley-Steiner, J. (1994). *Characterizing teacher-students interaction in Reading Recovery lessons*. (Reading Research Report No. 17). Athens, GA: National Reading Center. (ERIC Document Reproduction Service No. ED 375 392).
- Wood, D., Bruner, J.S., & Ross, G. (1976). The role of tutoring in problem solving. *Journal of Child Psychology and Psychiatry*, 17, 89-100.
- Wood, D., & Middleton, D. (1975). A study of assisted problem-solving. *British Journal of Psychology*, 66 (2), 181-191.