

**DIFFERENTIATED READING INSTRUCTION IN
ONE EXEMPLARY TEACHER'S CLASSROOM: A CASE STUDY**

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A single case study design was employed to describe the nature of one exemplary second grade teacher's differentiated reading instruction. The teacher participant was selected from a group of exemplary teachers nominated from one rural school district in southwestern Pennsylvania.

Data collection consisted of classroom observations, teacher interviews, and classroom artifacts. An analysis of the data revealed that the participating teacher differentiated the following aspects of small group reading instruction: materials, time spent in small group meetings, lesson structure and focus, teacher talk, and post-reading assignments. Ongoing assessments were used as the basis for decision-making about how to differentiate each lesson.

A microanalysis of teacher talk was conducted to provide insight regarding the nature of verbal scaffolding in the classroom. Teacher-student interactions were analyzed and coded at the level of utterance. The following categories were used to define the different types of talk used by the teacher to promote the independent use of strategies in reading: direct explanation, explicit modeling, invitations to participate, clarification, verification, and telling. This analysis revealed that the needs of the children created changes in the way the teacher interacted with group members.

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PREFACE

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1.0 INTRODUCTION

Children enter school with a variety of experiences and a range of ability levels. Students who have not been exposed to literate activities are often defined as “at risk” upon entrance to school. This range in ability does not disappear after the first year in school; all classrooms contain some range of student ability (Ornstein, 1995). If not addressed through appropriate instruction in the first years at school, this gap in knowledge widens (Allington, 1983; Stanovich, 1986; Rayner, Foorman, Perfetti, Pesesky, & Seidenberg 2002). Over several years, this can lead to a gap in achievement on standardized measures (McGill-Franzen, Zmach, Solic, & Zeig, 2006).

The wide range of reading abilities possessed by students has long perplexed educators. A number of attempts have been made to address differences, including school-level remedial programs and national reform efforts. School-based intervention programs such as Reading Recovery®, Early Steps, Direct Instruction, and Lindamood-Bell have been used with promising results (American Federation of Teachers, 1999). Long-term interventions such as Title I or placement into Special Education programs have been solutions chosen to address the needs of some children, as well. The No Child Left Behind Act (U.S. Department of Education, 2001) is the latest national reform effort to address literacy instruction and the gap in achievement levels between high and low performing students. No Child Left Behind (NCLB) mandated that all children, regardless of ability, must be able to read by the end of grade three. One of the foci of

this reform effort is teacher accountability; it is the responsibility of the classroom teacher to ensure that all children are taught to read successfully and fluently.

The challenge for teachers is complex: faced with a wide range of student abilities, teachers must address the different reading levels, provide necessary and appropriate instruction, and ensure that all children will read and comprehend “grade level text.” Studies have demonstrated that this cannot be accomplished by simply providing students with a common set of reading materials and lessons (Taylor, Peterson, Pearson, & Rodriguez, 2002a; McGill-Franzen et al., 2006). In fact, the most successful teachers of literacy change lessons, materials, and instructional techniques to fit the needs of learners (Pressley et al. 1998; Taylor et al., 2002a).

A variety of studies conducted with exemplary literacy teachers have revealed a common list of necessary ingredients for effective literacy instruction, including small-group differentiated reading instruction. Taylor and colleagues found that the most effective teachers of literacy devoted more time to small group than whole group instruction (Taylor, Pearson, Clark, & Walpole, 2000; Taylor, Peterson, Pearson, & Rodriguez, 2002b). Pressley and colleagues echoed this finding when they reported that outstanding teachers of literacy used a combination of whole group, small group, and individualized instruction. These teachers also displayed “sensitivity” to individual student needs; that is, they differentiated instruction based on the needs of the children (Pressley, Rankin, & Yokoi, 1996; Pressley et al., 1998).

It seems clear that one of the keys to bridging the achievement gap is to address the needs of individual learners. However, in a classroom of 20 or more children, individual instruction can be overwhelming. Thus, a variety of grouping patterns, utilized throughout the day’s instruction,

are recommended (Ornstein, 1995). Different grouping patterns can accommodate both the needs and strengths of individuals.

Research suggests the need to address individual differences in reading instruction. Professional wisdom seems to echo this understanding. When asked to describe literacy instruction, teachers often report assigning students to smaller groups to meet specific needs of the learners. Even so, the majority of teachers utilize whole group instruction as their primary grouping arrangement during the literacy block (Moody & Vaughn, 1997; Schumm, Moody, & Vaughn, 2000). It is possible that teachers lack basic knowledge required to differentiate instruction. Perhaps they do not really know how to manage several groups simultaneously, or do not know what criteria to use in creating small groups. An additional problem may be that teachers are unsure of how to provide additional time in their schedule for children who need more instruction. Further, teachers may be overwhelmed by the complexity of teaching the process of reading *differently* to children, based on assessments of student ability. Even when teachers do recognize the need for certain instructional practices (e.g. differentiated instruction), previously set belief systems often prevent them from following the recommended practices (Richardson, Anders, Tidwell, & Lloyd, 1991; Raymond, 1997; Wiebe Berry, 2006).

Small group instruction, while it is a necessary component to differentiating reading instruction, is not a simple solution. It is merely a beginning in the effort to level the playing field in reading achievement. It is not enough to teach one standardized lesson to several small groups of children in the classroom. The quality of the teaching and the content of the lesson are as important as the size of the group and the time spent instructing (Bloom, 1984; Slavin, 1987; Taylor et al., 2002a). According to Slavin (1987) the quality of instruction, appropriate level of instruction, motivation, and time allotted to tasks are all necessary components of instruction.

Each “is like a link in a chain, and the chain is only as strong as its weakest link” (p. 92). Exemplary teachers of literacy seem to understand this notion deeply; as a result, their instruction is as diverse as their learners.

It is this diversity that has yet to be described in detail in literacy research. If teachers do understand the necessity for differentiating reading instruction, perhaps they avoid this type of instruction because of the very complexity involved in it. If provided with detailed descriptions, teachers may begin to understand how to apply differentiated teaching to the children in their classroom. Ultimately, if the individual needs of children are met, perhaps no child *will* be left behind.

1.1 PURPOSE OF THE STUDY

The purpose of this study was to investigate and describe the nature of small group differentiated reading instruction in one exemplary second grade classroom. Research has shown that exemplary teachers do differentiate instruction; however, more information is needed. *How* do exemplary teachers differentiate? This study addressed the decision-making process of one teacher, as she planned and conducted reading instruction.

This investigation explored the method for introducing specific reading strategies to the whole class, as well as the manner in which individual student differences were addressed. The main focus, however, was the differentiation that occurred during small group reading instruction. Through reflective interviews the teacher described the criteria by which she formed her groups, introduced reading activities and strategies, and instructed the smaller groups within her classroom. All children in the participating second grade classroom were included in the

study, encompassing the range of abilities inherent in today's classrooms. It is the differences in the instruction of each group, along with the teacher's rationale for these differences, which were of primary interest.

1.2 THEORETICAL PERSPECTIVES

This study was firmly grounded in the social constructivist theory of Lev Vygotsky (1978). According to this theory, knowledge is constructed through social interactions, especially with a more knowledgeable person. Vygotsky (1978) wrote, "Every function in the child's cultural development appears twice: first, on the social level, and later, on the individual level; first, between people (interpsychological) and then inside the child (intrapsychological). This applies equally to voluntary attention, to logical memory, and to the formation of concepts. All the higher functions originate as actual relationships between individuals" (p. 57). During literacy instruction, knowledge is mediated through the teacher, who gradually transfers control of the concepts (e.g. use of reading strategies) to the students (Wozniak, 1980).

Integral to Vygotsky's theory is what he described as the *zone of proximal development* (ZPD). Vygotsky defined the ZPD as "*the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers*" (Vygotsky, 1978, p. 86, author's italics). A learner works within his or her ZPD when assistance is provided to complete the task. Through this assistance, or social mediation, the learner internalizes the expected behaviors, concepts, and/or strategies. Vygotsky argued that effective instruction occurs at the child's ZPD, since this is where true learning transpires.

One tool used for the mediation of knowledge is language (Wertsch, 1985). The teacher, as a more knowledgeable other, uses oral language and spoken interactions as a means to guide and extend student learning (Mercer, 1995). But the teacher does not do this by merely providing information; the student learns by participating and engaging in conversation. It is through this conversation that guided problem solving occurs, which leads to learning.

Bruner (1986) elaborated on the concept of ZPD by suggesting that the more knowledgeable person can “scaffold” the instruction for the learner. “Scaffolds” are supports the teacher puts in place to bridge the gap between the learner’s actual development level and the desired level of competency. It is through careful scaffolding that a child best learns while in the zone of proximal development. Instructional conversations, then, can be filled with verbal scaffolds. The end goal is that the child will learn to engage in, and successfully complete, a literacy task independently.

Teaching the process of reading is complex, even if individual differences are not considered. In addition, keeping all of the children in a classroom at their ZPD, and providing the necessary scaffolded instruction, is certainly a challenge. It is vital that teachers distribute the class into smaller groups, in order to match children with other learners of like needs and abilities. Further, teachers must design reading lessons to address the individual differences within these groups.

1.3 SIGNIFICANCE OF THE STUDY

Classroom teachers, reading specialists, elementary school administrators, providers of professional development, and researchers will benefit from this investigation. The case study approach allows for a detailed description of differentiated reading instruction. In addition, the behaviors of the teacher, as well as the decisions made prior to, during, and after these decisions are described. This allows readers to “live in the shoes” of the selected classroom teacher, to be privy to the decisions she made during a typical period of reading instruction. Readers will gain valuable insight as to what the teacher did in order to meet the diverse needs of her students, and why she did it. Further, the exemplary teacher who was selected to be the subject of this study provided illustrations of differentiated teaching practices and her rationale for using them.

1.4 RESEARCH QUESTIONS

The investigation addressed the following research questions:

1. What is the nature of small group differentiated reading instruction in an exemplary second grade teacher’s classroom?
2. What decisions does the teacher make before, during, and after the small group lessons?
What data does the teacher use to differentiate instruction?
3. What lesson components are constant across the groups? What components are changed to suit the needs of the group?
4. How is time used and managed in differentiated reading instruction?

1.5 DELIMITATIONS

The aim of this study was to provide a detailed description of the literacy instruction conducted by one exemplary teacher. The results of this investigation cannot be generalized to encompass the practices of all exemplary teachers. Further, this study did not attempt to prove causality between teacher practices and student achievement. Finally, this study was not designed to define *the one* method that works best for all students and teachers.

The researcher worked as a literacy consultant in the selected classroom prior to the investigation. As a result, a relationship between the participant and the researcher existed prior to the study. This could be considered advantageous, since “researchers in peripheral membership roles feel that an insider’s perspective is vital to forming an accurate appraisal of human group life” (Adler & Adler, 1994, p. 380). This prior relationship could also be considered delimitation to the study, since observer bias may result. This is something to be aware of and avoid when possible. Multiple data sources were triangulated in this study, in an effort to reduce the effects of observer bias.

1.6 DEFINITION OF TERMS

Differentiated Instruction

Responsive teaching, based on the needs, strengths, and interests of individual learners. Differentiated instruction is informed by assessment, and tailored to the needs and strength of learners. Differentiation can occur within a small group or with individuals. Teaching may be differentiated by adjusting time allotted to instruction, pacing of the lesson, materials used with students, personnel who support the lesson, and/or the approach to teaching.

Exemplary Teacher

For the purpose of this investigation, the term *exemplary* is best defined by a list of criteria (Appendix A). The criteria were formed through several research studies conducted to describe effective practices in literacy (Pressley et al., 1996; Pressley et al., 1998; Wharton-McDonald et al., 1998; Taylor et al., 2000; Taylor et al., 2002a; Taylor et al., 2002b).

Grouping Patterns

The method by which a teacher groups children for instruction. Examples include whole class, large group (8 or more students), small group (4-8 students), pairs, and individuals.

Literacy Block

Instructional time devoted to the teaching of reading and writing.

Professional Wisdom

Judgment acquired through experience; also the consensus viewpoint (U.S. Department of Education, 2002).

Scaffold

Supports the teacher puts in place to bridge the gap between the learner's actual development level and the desired level of competency (Bruner, 1986). Verbal coaching, elaboration, or

graphic organizers used to prompt desired strategy/skill use are examples. It is through careful scaffolding that effective learning can occur in the ZPD.

Social Constructivist Theory

A theory of learning credited to Vygotsky (1978). According to this theory, knowledge is constructed through social interactions, especially with a more knowledgeable person. The learner and teacher both play an active role in the transmission of new information. The “knowledgeable other” serves as the expert; the learner is viewed as the apprentice. The expert gradually hands over responsibility for the desired action/strategy to the learner, as control over the behavior is gained.

Zone of Proximal Development (ZPD)

The difference between mental development and learning. This difference is what Vygotsky termed “*the zone of proximal development. It is the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers*” (Vygotsky, 1978, p. 86, author’s italics).

2.0 REVIEW OF LITERATURE

This review of the relevant literature will provide a background and framework for the case study. Topics to explore include investigations into the nature of exemplary literacy instruction, research in differentiated reading instruction, and studies related to scaffolded instruction.

2.1 EXEMPLARY LITERACY INSTRUCTION

Educators and researchers have long grappled with the question of how to best teach children to read. Debates over different methods and approaches for teaching have been argued and empirically investigated. Such investigations have succeeded in providing evidence for particular methods (e.g. skills based or whole language) in literacy instruction; however, the complexities involved in literacy instruction could not be dealt with in these studies. One recent trend in research, emerging in the 1990's, has focused on a different attempt to answering the question. Grounded in the tradition of process-product research on teaching (Gage & Needels, 1989; Teddlie, Kirby, & Stringfield, 1989) a number of studies have been conducted to examine effective literacy instruction in its entirety, as performed by exemplary classroom teachers. The rationale for these descriptive studies was a desire to investigate and analyze the instructional activities of expert teachers who have consistently succeeded in teaching most of their students to read and write during the school year. Such analysis, while it cannot prove causal relations

between teacher actions and student achievement, does reveal certain “ingredients” that consistently appeared in the classrooms of these teachers.

Three major research efforts focused on exemplary literacy instruction are most often cited in the literature. Michael Pressley, along with colleagues from across the United States, published a series of studies which involved looking at the instructional practices of effective primary teachers, beginning in 1996. In 1998, the Center on English Learning and Achievement (CELA) published their first report in a series of studies concerning effective literacy instruction. Almost simultaneously, the Center for the Improvement of Early Reading Achievement (CIERA) began work on a series of investigations involving effective schools and accomplished teachers. Studies from these three major research groups will be discussed.

2.1.1 Pressley and colleagues

In an effort to gain understanding as to what effective teachers considered necessary components of literacy instruction, Pressley, Rankin, & Yokoi (1996) conducted a survey of 83 K-2 teachers. Fifty elementary reading supervisors, selected randomly from a database of members provided by the International Reading Association (IRA), were asked to nominate “effective” teachers from their buildings. Effective was defined as “successful in educating large proportions of their students to be readers and writers” (p. 366). The eighty-three teachers (out of 135 nominated) who were selected and agreed to participate came from 23 states, had varied educational backgrounds, and a mean of 16.7 years of experience in education (p. 366).

The participants were asked to complete two questionnaires. The first was a request to submit three separate lists detailing essential components of literacy instruction for good readers, for average readers, and for poor readers. Eighty-three percent of the participants responded. The

researchers used the 300 practices elicited by this first questionnaire to develop a second questionnaire. This instrument asked teachers to rate the level of their frequency of use for each instructional practice, using a 7-point Likert Scale. Respondents were also asked to estimate time spent on certain activities and indicate whether specifically described practices were used in their work with students. The second questionnaire was sent to the 113 teachers who responded to the first questionnaire; 86 were completed and returned, for a 76 percent response rate. Questionnaire items were analyzed quantitatively by grade level. The specific types of analyses were not described in the published article.

Teachers reported that their classrooms could be described as *literate environments*. Print, including original student work, was displayed around the room, classroom libraries were varied and extensive, and students were provided with time to read independently. General patterns for teaching processes were also described by these “expert” teachers:

- Explicit modeling on a daily basis
- Overt teaching of comprehension strategies occurred several times each week
- Skills were taught in the context of authentic reading and writing activities
- Literacy instruction was often integrated with other content areas

The management of classroom activities was varied among the classrooms; teachers reported using a combination of whole group, small group, and individualized instruction. The participating teachers also reported a certain amount of “sensitivity” to individual needs; that is, they differentiated instruction based on the needs of the children. Assessments were used by 89 percent of these teachers to identify the need areas, and instruction and/or pacing were adjusted as necessary (p. 373). In addition, most teachers described attempts to motivate the children in their classroom.

Pressley et al. (1996) concluded from the questionnaires that effective teachers in the primary grades balanced skills instruction with whole language practices. Further, the study indicated that it was through careful assessment, monitoring, and instructional balance that most children learn to read and write.

One major limitation of the Pressley et al. (1996) study was that it was based entirely on self-report data. Self-report data can offer valuable information; however, participants may simply provide what they deem as desirable information to the researchers. There was also the possibility of selection bias in this study. While participants were selected randomly from a database, the list originated from the IRA. It was possible that most members of the IRA subscribed to a particular theoretical orientation regarding reading instruction and practices; therefore, the responses would not be representative of *all* exemplary teachers of reading.

Wharton-McDonald, Pressley, and Hampston (1998) followed the above study with classroom observations and interviews of first grade teachers. Four suburban school districts, representing a variety of SES and ethnic/racial groups, volunteered to participate in the study. The IRA database was not used to elicit participation. As with Pressley et al. (1996), district language arts coordinators were asked to nominate the teachers. However, this time the names of both “exceptional” and “typical” teachers of literacy were requested. Again, the specific criteria for nominations was defined and described by the language arts supervisors, though the researchers did provide a list describing characteristics of exceptional literacy instruction. A total of nine teachers participated in the study.

The data analyzed in this study consisted of classroom observations, teacher interviews, and classroom artifacts. The observations of literacy instruction were conducted approximately twice per month from December 1994 until June 1995. Each observation lasted one to two hours,

and was performed by the researchers conducting the study. Extensive field notes were recorded and discussed later among the researchers. Two separate “in-depth ethnographic” (p. 106) interviews were also conducted with the teachers. Interviews were audio taped and transcribed. Both observation field notes and interview transcripts were coded according to emerging categories of instruction, using one line of text as the level of analysis. Information that was uncovered from each data source supported the other; therefore, the coding system was consistent across the sources.

Three sources of data were collected in an effort to measure student achievement: reading levels, writing levels, and engagement. Reading levels were determined by informal reading observations and writing levels were determined by analysis of writing samples. Engagement, measured by on-task behavior, was coded during the classrooms observations. The lack of standardized measures to assess achievement was one limitation of the study.

Teacher effectiveness, termed “outstanding teachers” in this study, was defined in a manner similar to the Pressley et al. (1996) study. However, in the Wharton-McDonald et al. (1998) study, supervisors’ nominations were checked against student outcome achievement data. Based on the combination of these two elements the final analysis for the study was completed on a subset of three of the nine teachers, two of whom were originally nominated as “outstanding,” and one who was nominated as “typical.” The students placed in these three classrooms performed better than the others on the described achievement measures, and consistently demonstrated higher levels of engagement. It was these three teachers who were considered “highly effective” by Wharton-McDonald et al. (1998).

A list of characteristics used to distinguish highly effective teachers of literacy from average teachers resulted from the Wharton-McDonald et al. (1998) study. These teachers consistently:

- Balanced and integrated explicit skill instruction with authentic reading and writing activities.
- Provided children with many and varied opportunities to read and write authentic texts.
- Packed classroom lessons with instructional density. “The teachers in this cluster integrated multiple goals into a single lesson” (p. 115).
- Demonstrated an awareness of purpose. Lessons were planned and carried out with an awareness of *why* each activity was assigned.
- Scaffolded instruction as needed. These teachers “seemed to be able to monitor student thought processes as they taught and interceded with just enough help to facilitate learning but not so much that they lost the flow of the lesson” (p. 116). In addition, the teachers effectively *removed* the scaffolding in these classrooms.
- Encouraged self-regulation. Metacognitive strategies were taught, encouraged, and expected.
- Held high expectations. These teachers expected success in literacy from their students.
- Were masters in classroom management, which led to high levels of student engagement. The three identified teachers juggled time, resource people, materials, student behaviors, and planned activities expertly.

Many of the findings confirmed the results from Pressley et al.’s (1996) survey study; much of what excellent teachers claimed they were doing in the first study was observed in the follow-up study. The populations were different in both studies, yet the answers were consistent.

In both studies there was evidence that a complex array of teacher behaviors, as well as teacher-student interactions, were required to achieve quality and effective literacy instruction. No one method or approach emerged as *the best* way to teach reading. It seemed, based on the findings of these studies, that a combination of several factors was most effective when teaching reading and writing.

2.1.2 Center on English Learning and Achievement (CELA)

Informed by the surveys conducted by Pressley et al. (1996) and the observations conducted by Wharton-McDonald et al. (1998), Michael Pressley led the group at CELA in a “constructive replication” of the Wharton-McDonald et al. (1998) study (Pressley et al., 1998, p. 3). A limitation to Wharton-McDonald et al. (1998) study was that all of the participants came from the same region of the United States. Therefore, the student population was an entirely suburban, mostly mid-upper SES population. It could be concluded that the common characteristics found among the teachers in the study resulted from local teaching mandates, pressures, and/or guidelines. In an effort to control for this, the study was replicated in five different regions across the United States. The five areas chosen represented a variety of racial/ethnic and SES groups.

Pressley et al. (1998, 2001) conducted a study involving 30 first grade teachers, nominated in the same manner as the Wharton-McDonald et al. (1998) study. Again, teachers were categorized as either “outstanding” or “typical,” and observations were conducted to determine the *most* effective teacher at each of the five site. Observation field notes were initially analyzed for the common characteristics found in exemplary literacy teaching in the previous studies conducted by Pressley et al. (1996) and Wharton-McDonald et al. (1998). Ten teachers were the subjects of the final analyses.

The observation procedures for this study were similar to the Wharton-McDonald et al. (1998) study; extensive field notes were recorded during each one to two hour observation of literacy instruction. However, there were between two and five trained observers at each site. Although the number varied between sites (due to financial and time resource availability) the presence of several observers increased the inter-rater reliability. Also, because of the total number of observers, there was great variability in the beliefs about literacy instruction, which helped to confirm objectivity in the conclusions. Because of this variety, the possibility of researcher bias was more limited in this study than in the previous studies. Data from the observations were collected and analyzed simultaneously (grounded theory), with attention focused on teaching processes, materials, and student performance. New understandings were sought to add to the list of previously determined characteristics of effectiveness.

Teacher interviews were a second source of data collected by Pressley et al. (2001). Again, the interviews were modeled after the Wharton-McDonald et al. (1998) study. Data from the interviews were coded using the same technique as the observations, and then triangulated with the data from the observations. It is through this process that the identification of the five most effective teachers and five least effective teachers of each locale was made, and a description of effective teachers emerged.

Teachers in the less effective classrooms shared some of the characteristics found in the most effective classrooms, a finding that emerged in the Wharton-McDonald et al. (1998) study as well. Still, a number of teaching characteristics unique to the most effective teachers in each region did materialize:

- Excellent classroom management
- Positive, reinforcing, cooperative environment

- Balance of skills instruction and whole language practices
- Scaffolded instruction
- High expectations
- Encouragement of self-regulation
- Strong connections across the curriculum

Again, the results of all three of these studies provided evidence of the complex nature of literacy instruction. While many of the characteristics were consistently observed in the classrooms of exemplary teachers, variety in the use of teaching strategies was evident as well. The teachers in all three studies either discussed student monitoring or were observed performing such activities. Teachers reported that instruction was informed through their assessments. Therefore, teaching decisions were not based solely on a predetermined formula, but were based on the knowledge of literacy processes and individual students.

Morrow, Tracey, Woo, and Pressley (1999) published information from their portion of the above study, conducted in New Jersey. The participants in this portion of the study included six first grade teachers who were identified as exemplary by their supervisors. What was interesting was the diversity of the student population in this study; 50 percent of the children were Caucasian, 20 percent were African American, 10 percent were Hispanic, 10 percent were Asian, and 10 percent were from various other backgrounds (Morrow et al., 1999). In addition, most children came from middle or lower middle-income groups (p. 464). The results were consistent with CELA's overall study, confirming that the characteristics of effectiveness in literacy teaching transcended a specific racial/ethnic or SES group. Again, exemplary teachers:

- Created literate environments for their students,
- Planned for a variety of grouping arrangements during the literacy block

- Explicitly taught skills within the context of authentic reading and writing
- Were experts at classroom management
- Possessed high expectations for their students
- Provided a wide variety of literacy instruction
- Were aware of their teaching philosophies and could provide a rationale for the literacy events that they had planned.

Further, Morrow et al. (1999) went on to assert that exemplary teachers provided students with a happy, warm and caring environment and the teachers enjoyed a collaborative, supportive relationship with one another.

2.1.3 Center for the Improvement of Early Reading Achievement (CIERA)

In 1997, a team of researchers from CIERA launched a series of national studies on the literacy practices of “effective” teachers in the primary grades (Taylor et al., 2000). The purpose of their original study was to identify and describe teaching practices in high-achieving, high-poverty schools; in essence, to build a description of what the most effective teachers of literacy do to ensure success of the most at-risk children. Because of the at-risk population of students, this would add to the body of knowledge that was growing through the similar studies conducted by Pressley, et al (1996), Wharton-McDonald et al. (1998) and the CELA studies.

The participants from the study (Taylor et al., 2000) included teachers in grades K-3 from fourteen schools across the United States. Eleven teachers in the fourteen schools were alike in that they had all been recently involved in the implementation of reading achievement reform efforts and they were all “producing higher-than-expected results in reading with low-income

populations” (p. 126). Three additional schools were recruited to serve as control schools. The populations in these schools were similar; however, the control schools had not implemented reform, nor had they experienced high levels of achievement.

Two teachers in each grade (K-3) were nominated by each building principal as either good or excellent teachers of literacy. As with the Wharton-McDonald et al. (1998) study, not all teachers who were nominated as excellent proved to be the exemplary teachers in the study. Following selection of the schools, the term “exemplary” was defined by the level of achievement gained on reading measures used by the researchers (see student outcome measures), in conjunction with the gain in scores on the district achievement tests. Four schools from the study stood out as the most effective, six were identified as moderately effective, and four more were determined to be the least effective.

Principals at the school participated in the study beyond the initial teacher nomination; each principal responded to a survey, participated in an interview, and provided demographic information regarding their schools. Participants in the study also included two low and two average students who were selected from each classroom in order to collect achievement data.

The data sources for the Taylor et al. (2000) study included fall and spring student outcome measures comprised of standardized letter identification and phonemic awareness measures (grades K-1), word lists (grade 1), QRI-II (grades 1-3), and a holistic retell rubric (grades 1-3). Pre and post measures were taken to assess reading growth. The utilization of standardized outcome measures was different from the Wharton-McDonald et al (1998) study, which strengthened the validity of CIERA’s results.

In addition to the achievement measures, classroom observations were conducted, utilizing the CIERA School Change Classroom Observation Scheme (2000). Literacy events

were recorded in narrative notes over five minute time segments by trained observers; the notes were coded using a priori categories following each five minute segment. A third data source consisted of teacher logs. For two weeklong periods, teachers documented the amount of time spent on various literacy activities. Principals and teachers completed surveys regarding literacy instruction. In addition, all principals and a sample of teachers participated in interviews with members of the research team.

Both quantitative and descriptive analyses were conducted at the school and classroom level. Because of the nature of this case study, only the classroom level analyses will be discussed. Categories considered at this level included

- Home communication (as reported on surveys)
- Student time on task (from observations)
- Preferred teacher interaction style (from observations)
- Time spent on reading instruction/activities (from teacher logs)
- Approaches to word recognition and comprehension instruction (from observations)

Two experts in teacher supervision read all of the observation notes. Using a checklist of elements of effective literacy instruction (based partially on the work of Pressley et al., 1996 and Wharton-McDonald et al., 1998) these experts assigned each teacher an accomplishment rating. Forty-two percent of the sampled teachers in grades 1-3 were identified as *most accomplished*.

There were several key findings in Taylor et al.'s (2000) study of effective schools and accomplished teachers, many of which echo the findings described by Pressley et al. (1996), McDonald-Wharton (1998), and Pressley et al. (2001) in their studies of effective literacy instruction. The previously discussed studies demonstrated that effective teachers engaged in a great deal of *scaffolding* in their instruction; Taylor et al. (2000) defined this behavior as

coaching. They found that the most accomplished teachers preferred coaching as an interaction style. Another similar finding was that skills instruction (i.e. phonics) took place within the context of reading whole, authentic texts. Teachers in Taylor et al.'s (2000) study engaged in more often in small group than whole group instruction; this echoed the finding of differentiated practices in the Wharton-McDonald et al. (1998) and Pressley et al. (2001) studies. There were high levels of student engagement found in the first CIERA study, as in the other studies. Students were expected to respond actively (read, write, manipulate) rather than passively (round-robin reading, oral turn-taking). In addition to these findings, Taylor et al. (2000), demonstrated that the most accomplished teachers of literacy “encouraged higher-level responses to text than less accomplished teachers or teachers in the moderately and least effective schools” (p. 158). Thus, higher-level comprehension of texts was being instructed.

As with the first set of studies that was discussed, a complex picture of literacy instruction was painted. These descriptive studies set out to “show” what effective teaching of literacy looked like. The CIERA study added evidence to the findings of Pressley and his colleagues: good instruction in reading (and writing) looked different across the classrooms. That is, teachers made decisions based on the needs of their students as demonstrated through various assessments; a one-size fits all model was not used by these exemplary teachers. However, even among the most at-risk student populations, some common threads of effective instruction existed.

CIERA began a new study in 1999, in an effort to test the efficacy of the school change framework they developed based on the original accomplished teachers study. As a result, only schools where 75% of teachers agreed to participate in the reform effort (framework) were eligible to participate in the study. In addition to assessing the framework, the researchers asked,

“Across schools, what classroom practices and school wide efforts are most effective in improving the teaching of reading and increasing student achievement?” (Taylor et al., 2002b, p. 1). This study involved eleven high poverty elementary schools across the nation. Two teachers at each grade level (K-6) were randomly selected to participate in the study. Just as with the original CIERA study, students were selected by their teacher to represent achievement at different ability levels.

Data collection for the study (Taylor et al., 2002b) included student assessments similar to the original study. Again, all outcome measures were standardized. Observations in two randomly selected classrooms per building were conducted using the CIERA School Change Classroom Observation Scheme. In addition, teachers participated in interviews and completed logs to detail the types and amount of literacy instruction present in their classrooms. As with the first study, data were analyzed at the school and classroom level. Only classroom level analyses will be discussed here.

Data analysis was both quantitative (percentage of time segments devoted to type of activities/interactions) and qualitative (coding of log and interview comments and observation summaries). The information from the observations was especially enlightening to the study. Aspects of the classrooms observations that were found to be important in previous research on effective literacy instruction were closely analyzed.

Because these teachers were not previously classified as “accomplished” the results did not match the accomplished teachers study (Taylor et al., 2000). However, certain aspects of the first study were echoed in positive trends in this study. For example, in grade one,

children grew more in comprehension and fluency when their teachers were coded as asking more higher-level questions than other teachers. Teachers who were more often

observed teaching their students in small groups in first grade also had students who showed larger gains in fluency during the year (p. 37).

In grades 2 and 3, students had higher gains in reading comprehension when teachers were involved less frequently in teacher-directed interactions (i.e. telling or recitation rather than coaching or scaffolding) (p. 39). As with first grade, these children gained more on fluency measures when teachers spent more time in small group than whole group instruction. Students in grades 4-6 demonstrated high levels of growth in fluency, comprehension, and writing when their teachers asked more higher level (than lower level) questions after reading. Similar to the findings by Wharton-McDonald et al., (1998) and Pressley et al., (2001), coaching interactions during reading were related to student growth in fluency and writing (p. 40).

A limitation of this study was that only a small number of schools were involved in the study; therefore, the efficacy of the reform effort really could not be adequately assessed. Still, the study did lend additional evidence to the emerging list of “effective instructional ingredients” that researchers were seeking at the time. In essence, this study provided evidence of a relationship between student achievement and the use of the exemplary characteristics generated in the previously reviewed studies. Results demonstrating that the components that were correlated to increased achievement certainly complemented the findings in the previously discussed studies. One may conclude that showing classroom teachers *how* to instruct in the manner of outstanding teachers could lead to higher student achievement.

2.1.4 Conclusion

There exists much information in the research literature about the efficacy of particular teaching approaches in literacy (i.e. whole language, phonics, etc.), as well as best practices in specific areas of literacy instruction (i.e. phonics, word analysis, fluency, vocabulary, comprehension.) However, the question of “what do *exemplary* teachers do” had not been comprehensively addressed until recently. Through the descriptive studies described here, researchers have tried to answer that question. As a result, a more vivid description of what the teachers do in these classrooms has emerged.

Mazzoni and Gambrell (2003) outlined ten research-based best practices for literacy instruction. According to their list, effective teachers:

- Teach reading for authentic purposes
- Use high quality literature
- Integrate word study into reading/writing instruction
- Use multiple texts
- Balance teacher-led and student-led discussions
- Build classroom communities
- Provide small group instruction and individual practice opportunities
- Provide time for independent reading
- Balance direct instruction in decoding and comprehension with guided instruction and independent reading
- Use various assessments to inform instruction (p. 14).

This list describes the specific activities and learning environments created by thoughtful teachers who understand the complex process involved in learning to read and write; in fact, they understand this process well enough to teach it. Further, these teachers utilize assessments to identify their students' strengths and needs. As a result, teaching matches the abilities of the learners.

The items on Mazzoni and Gambrell's (2003) list clearly matched what the researchers in the exemplary teacher studies found. While various materials and programs were utilized across the classrooms, one point was evident: it was *the teacher* that mattered in literacy instruction. The most proficient at literacy instruction knew their students' capabilities and needs well. They did this through on-going assessment. This was also accomplished through observations and exchanges in small groups, or through individualized instruction. Such interactions allowed the teachers to "grab the teachable moment" for individuals in their classrooms. The expert teachers scaffolded instruction. That is, they guided students through tasks, doing for the child what s/he could not do independently. Just as important, these exemplary teachers removed the scaffolding, releasing the responsibility to the learners when possible. As a result, self-regulated learners were able to independently manage the literacy tasks put before them. Because of well-planned and carefully managed tasks, students in the exemplary classrooms were highly engaged, active participants in literacy lessons and discussions. They were capable of high-level conversations about books and stories they had read.

Clearly, teacher-student interactions and teacher decisions emerged as clear factors in instructional effectiveness. None of the expert teachers studied limited their instruction to an exclusively skills-based or whole-language approach. Instead, a balance between these two approaches was utilized; teachers taught the skills/strategies needed for the children in their class

at the time the lesson was needed. Just as the processes of reading and writing are complex, the teaching of these processes involves a complex array of teaching strategies and tools. The exemplary teachers studied understood these strategies and how to apply them.

2.2 DIFFERENTIATED READING INSTRUCTION

Children come to school with a range of literacy experiences and capabilities. Professional wisdom guides teachers to group children in an attempt to tailor, or differentiate, instruction to meet the differing needs that children possess as they learn to read and write. As a result, teachers past and present have attempted various types of grouping arrangements during the literacy block. However, professional wisdom is not enough; evidence from research must guide instruction. Efforts to describe grouping practices, test the efficacy of grouping arrangements, and define exemplary instruction were the focus of research in the 1980's. The following is a description of the historical research, followed by more current research regarding some of the most predominant grouping arrangements used in primary classrooms today.

2.2.1 Attempts at differentiation: A brief history

Reading programs designed for groups of differing abilities first appeared in the 1950's (Barr & Dreeben, 1991). Within-class "ability grouping" took hold as a predominant practice for many teachers in the 1980's (Hiebert, 1983; Hallinan & Sorensen, 1983; Dreeben & Barr, 1988). As a result, grouping for reading instruction was one focus of reading research in the 1980's.

The term *ability grouping* seemed to encompass all that was necessary in differentiated reading instruction. In theory, students would be assessed and then homogeneously grouped by reading ability. Next, the teacher would craft different lessons to suit the needs of the students in each group. In reality, however, teachers often grouped their students by structural variables, such as class size. It was common practice to divide students into three groups of equal size (Hiebert, 1983; Hallinan & Sorensen, 1983; Dreeben & Barr, 1988). While more homogenous subgroups were achieved in comparison to the whole class, there still often existed a wide range of abilities within these three groups. In most cases, the groups remained stable throughout the year, changing mainly due to management issues. In essence, it was the size of the class, more than any assessed range of abilities, which determined a child's reading group placement (Hiebert, 1983; Hallinan & Sorensen, 1983; Dreeben & Barr, 1988).

Despite the range within these subgroups there was a certain amount of tracking that existed. Barr (1973, 1975) and Allington (1983) described a differential, rather than differentiated type of teaching that occurred within such grouping arrangements. Based on his review of research, Allington (1983) argued that, "good and poor readers differ in their reading ability as much because of differences in instruction as variations in individual learning styles or aptitudes" (p. 548). Children placed in lower-achieving groups were exposed to fewer words in reading, since basal story reading occurred at a slower pace; children in the higher achieving groups were exposed to more words at a faster pace (Barr, 1973; Pallas, Entwisle, Alexander & Stluka, 1994). As a result, the higher achieving group received more and better instruction, and in essence learned more than their less-able peers (Pallas et al., 1994). The efficacy of ability grouping came under debate in the 1980's, and whole group teaching began to take hold in many classrooms (Moody & Vaughn, 1997).

2.2.2 Does differentiation occur today?

Moody and Vaughn (1997) conducted interviews of teachers in order to learn more about their perceptions and procedures for instructional grouping in reading. Forty-nine third grade teachers (29 general education teachers, 20 special education teachers) were recruited from a large, metropolitan school district. Purposive sampling procedures were utilized to ensure that all teachers instructed children with learning disabilities in their classrooms. There was a great deal of ethnic diversity among the students. All teacher participants instructed reading using one of three basal series provided by the school district.

Thirty to sixty minute individual interviews were conducted with the teachers by the researchers. Seven open-ended questions were asked to elicit information about the teachers' background and perceptions of grouping, factors that contributed to decision-making regarding grouping, and the teachers' perceptions regarding the effects of grouping. The interviewers completed training sessions prior to conducting these sessions. All interviews were audio taped and transcribed for analysis.

Interviews were followed up with six separate focus-group interviews. All of the original participants were invited to attend; 29 (16 general education, 13 special education) of 49 teachers participated in the focus group (p. 4). The average size of each focus group was five; participants were homogeneously grouped according to general or special education placement. Each meeting lasted from 60-75 minutes. The focus group interviews were conducted in an effort to clarify responses from the original interviews. Again, interviews were audio taped and transcribed for later analysis.

All transcribed data were entered into a computer database and qualitatively analyzed at the phrase and line level. Meaningful units were categorized and coded independently by the two researchers, and then negotiated between the two.

Three main categories emerged from the data: control over grouping, whole-class instruction versus grouping formats, and heterogeneous versus homogeneous grouping. Moody and Vaughn (1997) found that general education teachers felt that their grouping decisions were based on district and school level imperatives. Special education teachers, in contrast, felt that they had control over the manner in which they grouped the children. Both groups “felt as though they should be the ones to decide how they use instructional groups in their classrooms” (p. 6).

The general education teachers in Moody and Vaughn’s (1997) study reported that the predominant grouping arrangement was whole group, mainly due to management issues. Teachers found it easier to manage one lesson and one group of students than to plan different activities for multiple groups. Some general education teachers did utilize small groups in their classrooms for “practice and reinforcement” (p. 6). Mixed ability grouping was the second most frequently mentioned grouping arrangement, after whole-group instruction, from teachers of general education students. The response was different from special education teachers; few indicated that they used a whole-group format for instruction. Groups in special education classrooms were formed according to individual needs; therefore, they were homogeneous ability groups. Interestingly, several general education teachers expressed that they felt small, homogenous grouping arrangements were more effective in teaching students how to read. Again, management issues and administrative directives were the reason these teachers often did not employ this practice.

Moody and Vaughn's (1997) study of teachers' perceptions supported the notion that ability grouping for reading instruction was fading from classrooms. Ability grouping had become an "unpopular" mode of instruction, based on the earlier findings regarding *differential* instruction between groups (Barr, 1973; Allington, 1983; Pallas et al., 1994). However, there were several limitations to this study. The small sample of 29 general education and 20 special education teachers prevented generalizations from being made to larger populations. In addition, all data were comprised of teacher perceptions; there was no evidence of *actual* grouping practices. Further, there was not evidence for exactly how the instruction was differentiated within the small groups. In fact, it appeared that teachers were not differentiating reading instruction in many regular education classrooms. Against their better judgment, teachers were providing a "one-size-fits-all" lesson, partially due to administrative pressure and partially due to classroom management issues. Since achievement data were not analyzed, there was no conclusion made as to whether this was problematic.

Schumm, Moody, and Vaughn (2000) conducted a similar study, but added classroom observations and achievement measures to the data collection. Twenty-nine third grade teachers were nominated by their principals to participate in the study. Criteria for nomination included an interest in participation and the presence of at least one LD (learning disabled) student in the classroom.

Each teacher was individually interviewed for 30 to 60 minutes to elicit information about grouping practices and factors that led to the grouping arrangements used in their classrooms. Teachers also provided information about the reading program they used, as well as their perceptions of the effects on grouping arrangements in general. All interviews were audio taped and transcribed for analysis. These data were similar to those described in the Moody &

Vaughn (1997) interviews described above; however, no reference was provided that indicated that the sample was taken from the same source.

Classroom observations were conducted to provide information regarding teacher-student interactions and behaviors, with a particular focus kept on any LD students in the classroom. One aim was to assess whether individual differences were being addressed in the classrooms. Instructional grouping formats were noted and categorized as whole class, group (3 or more students), pairs (2 students) or individual. Each teacher was observed three times during the complete reading lesson (approximately 90 minutes) (p.475). All observers were trained to use the Classroom Climate Scale (CSS) to document grouping practices, and reached 80 percent reliability in the training sessions. Extensive field notes were taken during the observations as well.

Prior to the classroom observations, teachers were asked to complete a checklist detailing the types of grouping arrangements they planned to use, as well as a rationale for each format planned. Information from the checklist, the observations, and the interviews was analyzed and seven categories emerged: prevalent grouping patterns, rationale for whole class instruction, perceptions of whole class instruction, need-based groups, other grouping patterns, word analysis instruction, and reading instruction for LD students.

Schumm et al. (2000) found that the observation data did not always match the self-report data. In the interviews prior to the observations, approximately half of the teachers indicated that they used mixed ability grouping; in addition, half claimed to employ homogenous, small groups in their reading instruction. However, observation data revealed that the instruction from 21 of the 29 teachers was delivered to the whole group. Further, no differentiation of instruction was present in any of the observed reading lessons. “The common thread was that during reading

instruction, all students were given the same material to read, whether they could decode it or not” (p. 481). Three of the 29 teachers engaged in permanent, same-ability grouping, “in which differentiated reading materials were used. However, in the case of two of the three teachers, 95 percent of the instruction was still whole group” (p. 481). Four other teachers studied engaged in mixed ability grouping.

As concluded by Moody and Vaughn (1997), traditional ability grouping did not exist in these classrooms. However, there was also very little differentiation of reading instruction. Schumm et al. (2000) found that most teachers instructed all students in the same manner, with the same lesson, and with the same materials.

Although most teachers utilized a whole group format as their main teaching mode for reading, instructional efficacy was not the rationale behind it. Many expressed the ease of planning and implementation of whole group instruction as two major factors. District philosophy or policy was another reason provided for whole class instruction. All of these findings are consistent with Moody and Vaughn’s (1997) study.

Other grouping formats were mentioned in the teacher interviews or on the checklist prior to observations. Most teachers who used whole group formats claimed that they formed small needs-based groups to work on skills presented to the whole class. “However, out of 87 classroom observations that included more than 120 hours of observation during reading instruction, we documented only one example of a skill-based group being pulled out for intensive instruction, and that was for a writing activity” (p. 482). This lack of differentiation was extended to word analysis lessons, even in classrooms where very low readers were present. And while teachers reported using small, mixed-ability groups for practice and reinforcement,

this was only observed on eleven occasions (p. 482). Again, teacher report did not match the observational data.

The second part of Schumm et al.'s (2000) study was to look at the achievement data from the twenty-one classrooms where whole group instruction was predominant. One hundred forty seven students were selected to represent high achieving, average achieving, and low achieving students in each room. The student participants were nominated based on grades, classroom performance, and scores on the most recent standardized achievement test.

Once selected, each student's decoding and comprehension was measured in the fall and spring using the Kaufman Test of Educational Achievement (KTEA). High achieving students demonstrated the most progress in both decoding and comprehension, while average-achieving students demonstrated growth in decoding, but less progress in comprehension. "The reading improvement of the low-achieving students and the students with LD was minimal" (p. 485).

Although there was variability in the reading levels of the student participants, the teachers did not engage in differentiated instruction. Student achievement for the average and low achieving students did suffer. Clearly, a need for differentiated instruction did exist, but the results from Moody and Vaughn (1997) and Schumm et al. (2000) indicated that it did not occur. The small sample size, as well as the small numbers of observations (three) in each classroom, limited the generalizability of the investigation. The reported results, however, do raise concern. One conclusion that could be drawn is that teachers need more guidance in *how* to group children, and *how* to provide differentiated instruction.

McGill-Franzen et al. (2006) conducted a study that resulted in similar findings to Schumm et al. (2000) with regards to minimal reading improvement of low-achieving students. These researchers analyzed the effect that the adoption of core reading programs in high poverty

schools in Florida had on achievement and retention rates. Two phases of the study were conducted. In phase one, a content analysis of two contemporary basal series identified as acceptable core reading programs for third grade was conducted. The purpose of the analyses was to determine the amount of teacher guidance provided in addressing different student needs and abilities. The second phase of the study examined the relationship between the two programs and student achievement, as measured on the state standardized test, FCAT.

McGill-Franzen et al. (2006) found that each basal series program offered guidance in different areas of reading instruction; neither completely addressed the complexities involved in teaching different children to read. One series (F) contained more instruction in vocabulary and fluency, while the other program (C) contained more information on comprehension instruction. The major finding of phase two of the study was an inverse relationship between poverty and achievement in both programs. Overall, McGill-Franzen et al. (2006) found that “such curriculum standardization may further disadvantage the lowest-achieving readers” (p. 2). This study supports the notion that differentiation in instruction is needed to narrow the gap in achievement caused by individual differences.

When considering a different sample of teachers, those identified as *exemplary*, the conclusions change. As described above, Wharton-McDonald et al. (1998) examined the teaching practices of nine first grade teachers who were nominated “outstanding” by their supervisors. The data used in the study consisted of classroom observations, teacher interviews, and classroom artifacts. Participants in the study were documented as using a variety of group formats, including whole group, small group and individual lessons. One finding in the study was that the most effective teachers, those who fostered the highest level of student achievement, “seemed to be able to monitor student thought processes as they taught and interceded with just

enough help to facilitate learning but not so much that they lost the flow of the lesson” (p. 116). A great deal of individual coaching during small or whole group lessons was observed in these classrooms as well. These are examples of differentiation, based on the needs of the learner.

This finding was repeated in a similar study conducted by Pressley et al. (2001), where the exemplary teachers were consistently observed differentiating instruction for all learners, whether accelerated or struggling in reading. In addition, Pressley et al. (2001), found that

the effective first-grade literacy teacher did more than monitor children’s progress: she cued materials or scaffolded instruction as students did appropriately challenging tasks, prompting use of skills and opportunistically re-teaching skills to individual students on an as-needed basis...teaching was very different in the most effective classrooms from student to student and from occasion to occasion (pp. 46-47).

Indeed, differentiated instruction did exist in these classrooms. Sometimes lessons were tailored to small groups, sometimes the skill/or strategy was taught to an individual. Whatever the case, the teacher assessed, diagnosed, and implemented what was necessary at the time.

Taylor et al. (2000) found a similar phenomenon in their study of effective schools and accomplished teachers. Exemplary teachers were observed teaching reading to small groups more often than the whole group, a finding that contradicts Schumm et al.’s (2000) finding. It is important to note that the teachers in Taylor et al.’s (2000) study were all identified as exemplary. In addition to frequently instructing small groups, the predominantly used style of teacher-student interaction was coaching. “Coaching in word recognition strategies involved prompting children to use a variety of strategies as they were engaged in reading during small-group instruction or one-on-one reading time” (p. 136.) These coaching interactions fell into several subcategories, including Metacognitive Dialogue on Strategies, Metacognitive Review

on Strategies, Praise for Use of Strategies, and General Prompts to Figure Out Words, and Specific Prompts to Figure Out Words (pp. 136-137).

When interviewed, the teachers in the Taylor et al. (2000) study discussed the importance of *instructional level grouping*. This term was preferred over *ability grouping*, due to the negative connotations associated with the latter. Teachers also indicated that they used systematic and on-going assessments in the formation of their groups, in order to ensure accuracy of membership, as well as avoid inflexibility in grouping. Group membership shifted as needed, according to assessment results. Although the information provided came from teacher self-reports, the presence of instructional level grouping was confirmed through classroom observations. The differential treatment of groups discussed by Allington (1983) and Barr (1975, 1979) was not observed in the classrooms studied by Taylor et al. (2000). Instead, students in the low-instructional level groups were exposed to as much higher-level teaching strategies as their classmates in the high instructional level groups (p. 156), according to observation data and teachers logs.

2.2.3 Conclusion

Differentiated reading instruction does occur in classrooms today; however, it may be limited to the classrooms of expert teachers. Perhaps the process of reading is so complex that adequate instruction appropriate to individual needs is difficult for “typical” teachers to attain. Another possible explanation is that the teachers in the most effective classrooms were experts at managing different grouping arrangements within their classroom (Wharton-McDonald et al. 1998; Pressley et al., 2001; Taylor et al., 2000). Both Moody and Vaughn (1997) and Schumm

et al. (2000) listed management issues as barriers to differentiated instruction, according to the teachers they studied.

There is a small body of evidence that ties differentiated instruction to student outcomes. The research in exemplary literacy instruction demonstrates that students who consistently score better than average on measures of achievement have teachers who differentiate instruction (Wharton-McDonald et al., 1998; Pressley et al., 2001; Taylor et al., 2000). Caution must be exercised in the interpretation of these results. There were many characteristics of “effectiveness” identified in these studies; differentiated instruction was only one. In addition, the data from these studies only imply a correlation between the higher levels of achievement and the characteristics of effectiveness. Experimental studies have not yet been conducted to test these findings.

What is missing in the research literature is a detailed description of *how* differentiated reading instruction occurs. What exactly happens within these lessons? How is each lesson different from another? The nature of the teacher-student interactions is not fully described, nor are the materials used clearly defined. Methods for assessing student needs are mentioned, but not fully described. Further research in this area is required if “typical” teachers are to understand the nature of “effective” differentiated reading instruction.

2.3 INSTRUCTIONAL SCAFFOLDING

The terms scaffolding and/or coaching are often used to describe desirable teacher-student interactions in literacy instruction (Dorn, French, & Jones, 1998; Maloch, 2002; Pressley et al., 1998; Roehler & Cantolon, 1997; Taylor et al., 2000; Wharton-McDonald et al., 1998).

Language is one tool used by the expert (the teacher) to help the novice (student) gain knowledge. Evidence provided by recent descriptive studies of exemplary literacy instruction points to the importance of these types of interactions (Pressley et al., 1998; Taylor et al., 2000; Wharton-McDonald et al., 1998). Wharton-McDonald et al. (1998) and Pressley et al. (1998) listed the prevalent use of scaffolding with encouragement of self-regulation as characteristic of effective instruction in reading. Taylor et al. (2000) described this teaching behavior as coaching; they found that coaching was the predominant teacher-student interaction in the classrooms of the most accomplished teachers of reading.

Because the terms *scaffolding* and *coaching* deal with abstract concepts, they are often misused and misunderstood. The definition for these terms, as related to instructional interactions, is grounded in the work of Lev Vygotsky and Jerome Bruner. According to Vygotsky, there exists a difference between mental development and learning. This difference is what he termed “*the zone of proximal development. It is the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers*” (Vygotsky, 1978, p. 86, author’s italics.)

Jerome Bruner elaborated this description of learning behavior by describing the process of “scaffolding” (p. 74). Bruner’s definition of scaffolding was based on his observational research of one-to-one tutoring sessions of three- and five-year old students. Bruner explained,

what the tutor *did* was what the child could *not* do. For the rest, she made things such that the child could do *with* her what he plainly could not do *without* her. And as the tutoring proceeded, the child took over from her parts of the task that he was not able to do at

first, but, with mastery, became consciously able to do under his own control. And she gladly handed those over (Bruner, 1986, p.76, author's italics).

In essence, the adult structured tasks that the child could successfully complete, providing assistance (scaffolds) only when needed. Key to the success of this teaching model was handing the task over to the learner once s/he was able to complete the task alone.

“Scaffolds,” then, are supports the teacher puts into place to bridge the gap between the learner's actual development level and the desired level of competency. It is through careful scaffolding/coaching that a child can learn while in the zone of proximal development. As educators, professional wisdom tells us that this makes sense. It *seems* important to challenge our students without frustrating them. It seems that the utilization of coaching/scaffolding would increase student achievement. However, educational decisions should not be made without evidence to support them.

Because an instructional support cannot exist in isolation of skills or strategies being taught, research studies cannot be designed to exclusively examine the effects of scaffolded instruction. However, a few studies that have been conducted indirectly test the efficacy of scaffolded instruction. Duffy, Roehler, Meloth et al. (1986) attempted to link explicit verbal explanations to student achievement gains. Duffy and his colleagues studied twenty-two 5th grade teachers and the students from their low-achieving reading groups. All teachers volunteered and were paid a stipend for their participation in the study. Each teacher was randomly assigned to a treatment and control group. The treatment group received ten hours of training in effective methods for incorporating explicit explanation into their reading instruction. This training involved how to present reading skills, as well as how to discuss the processes used in reading. Teachers were taught to “organize their instructional talk into a five-step lesson

format: introduction, modeling, guided interaction, practice, and application” (p. 244). Although the term “scaffolding” was not used to describe the training, the guided interaction step of the instructional talk could be categorized as scaffolding. Comprehension strategies instruction was also one focus of these training meetings.

Data collection included student outcome measures, student interviews, and observations of low-group reading instruction. The Gates-MacGinitie reading test was administered to all student participants in the fall and spring. These measures served as pre- and post-tests of student achievement. Students were also interviewed following reading lessons, to determine the level of awareness regarding skills that were taught. Students were rated on a 12-point scale as to their level of awareness of the reading skills and how to apply them. Teachers were observed during reading instruction (with their low group) four times, about once each month, until mid-April. Teachers were then rated on a 22-point scale, created for the study, to determine the level of explicitness in their explanations. The researchers, who were trained to use the scale in classroom observations, conducted all observations. Inter-rater reliability was established through the training period. Lessons were audio taped and transcribed to supplement field notes in the analysis.

Duffy, Roehler, Meloth, et al. (1986) found that the teachers in the treatment group did become more explicit in their reading instruction. As a result, the students in the treatment classrooms were significantly more aware of the skills they were taught, according to analysis of interview data. The students in the treatment group also scored higher on post-test achievement measures, although the difference between the treatment and control groups was not statistically significant. The authors of the study noted that the treatment teachers were not always consistent in their use of explicit explanations, which may have lowered the effect size.

As expected, the role of explicit guidance (scaffolding) in the increased awareness was not successfully teased out in this study. Although scaffolding played a part in the instruction, the study did not define this interaction as the cause of the effect, although a correlation could be inferred. A limitation of the study was the small sample size, which limits the ability to generalize the results.

Duffy, Roehler, and Rackliffe (1986) took a closer look at the transcripts of lessons of seven of the treatment teachers from the above-described study, focusing closely on the differences in teacher interaction styles. Each researcher independently analyzed transcripts line by line. Two of the teachers in the study (Teacher A and Teacher D) were rated as providing high explanations. However, Teacher A's students received high awareness ratings (mean=10.67 out of 12) in their interviews, while Teacher D's students received lower ratings (mean=6.83 out of 12) in awareness (p. 6). Post hoc analyses of the lesson transcripts were conducted to determine why two teachers who conducted highly rated lessons would produce such different student results.

The analysis revealed that Teacher A and Teacher D engaged in different types of talk during their lessons. Particularly relevant were the different types of verbal assistance (coaching/scaffolding) provided by the two teachers. According to Duffy, Roehler, and Rackliffe (1986), "The teachers not only made different statements about what was to be learned, they also provided different kinds of help, despite the fact that both received identical training in how to present and explain skills" (p. 8).

Teacher A, whose students were rated the highest in awareness, talked more at the beginning of the lessons, and provided detailed step-by-step descriptions of the processes needed for the lesson. Teacher D began her lesson with questions, and was not as explicit in her

description of how to carry out the processing. A second difference was that Teacher A instructed students to connect their own experiences to strategies that were taught. This would allow for transfer of the strategies to other contexts. The reasoning processes behind this behavior were modeled for the children, as well. Teacher D identified the specific strategy to apply, without mention of transfer or the reasoning processes involved. In addition, “Teacher A elicited responses from students and, building on these responses, elaborated on how to reason” using the skills/strategies presented (p. 9). The teacher prompted the students to add detail, problem solve, and arrive at a correct conclusion following their initial responses. This type of verbal feedback would be considered coaching, according to Taylor et al.’s (2000) definition. Teacher D rarely elaborated on students’ answers; feedback was often terminal in nature. That is, the teacher simply repeated the students’ answer to a question, provided the answer, or corrected an inappropriate response.

Because both of the analyzed teachers attended the same training sessions (explicit verbal explanations) and received high observation ratings in that area, Duffy, Roehler, and Rackliffe (1986) concluded that the instructional talk was the factor that influenced the variance in student awareness. This seems to be a reasonable conclusion. Since all students involved in the transcribed studies were tested on a standardized reading measure, as described in Duffy, Roehler, & Rackliffe (1986), it can be assumed that the student samples were of matched ability. Although the small sample (n=2) does not allow for generalizability, the study does serve as a description of the effect that teacher interactions may have on achievement.

Scaffolded interactions play a key role in an intervention known as reciprocal teaching (Palincsar & Brown, 1984). The intervention consists of the instruction of four strategies (predicting, clarifying, summarizing, and questioning) used concurrently within the context of

authentic text. However, strategy instruction alone does not constitute reciprocal teaching. Palincsar and Brown (1984) clearly described the role of scaffolding support for students learning the strategies, as well as the gradual release of the responsibility for strategy use to the students. Within twenty days, students are expected to perform these strategies independently as they actively engage in reading informational text.

The effect of reciprocal teaching on student achievement was tested in an experimental study conducted in Canada by Lysynchuk, Pressley, and Vye (1990). Seventy-two struggling readers from grades four and seven participated in 13 reading sessions. Classroom teachers nominated the student participants based on their status as “adequate decoders and poor comprehenders” (p. 473). The researchers confirmed these criteria for nomination through standardized reading measures. As a result, students in both the treatment and control groups were of similar ability with respect to comprehension performance.

Pre-and post-tests of reading comprehension were used. The Gates-Macginitie Reading Test was used with the thirty-six 7th graders. Because this test was unavailable at the fourth grade level, the Metropolitan Achievement Test was used with the thirty-six 4th graders. Vocabulary tests were also administered; a subtest of the Gate-Macginitie Reading Test was used for the 7th grade participants, while the 4th grade students took a subtest of the Canadian Tests of Basic Skills. Additional comprehension assessments were given following the reading sessions. Expository passages were matched to the appropriate grade levels, and read by students in both the treatment and control groups. Comprehension questions and retellings were alternated daily following each of the reading sessions, to assess achievement gains.

The teaching procedure consisted of small group instruction, with between two and five students placed in each group. Each group was instructed by one of the researchers. The students

in the treatment group received 13 sessions of scaffolded comprehension strategies instruction through reciprocal teaching. The control group participants also met with the researchers in small groups. However, the participants merely read the assigned passages silently and completed the assessments. Researchers were available to answer questions or provide help with decoding skills if needed, but specialized instruction was not provided.

The results of the study indicated that reciprocal teaching was a successful intervention; the poor comprehenders from the treatment group scored significantly higher than the poor comprehenders in the control group on the standardized comprehension measures. The effect of scaffolding the instruction was not separated out from the effect of the strategies instruction. Still, Palincsar and Brown (1984) insisted that scaffolded instruction was vital to the success of reciprocal teaching. Lysynchuk et al. (1990) also described these interactions as a necessary component in the achievement gains caused by the intervention.

It is possible that perhaps the specific strategies taught do not matter as much as the method for teaching them, e.g. through modeling, feedback, and tailored coaching/scaffolded interactions with the teacher. Pressley et al. (1992) concurred with this statement in their descriptive paper on classroom strategy instruction. Based on a review of the literature in comprehension strategies instruction, Pressley et al. (1992) explained that the goal of comprehension strategy instruction was to develop self-regulated readers. In order to accomplish this “the teacher’s hints, support, and encouragement help each student to be part of the group’s decisions making...As joint participation continues, students grow ever more competent in the group setting” (p. 516). Further, the specific strategies that were taught in classrooms varied depending on the needs of the children and the types of texts used. Even so, “teacher coaching was the most prominent mode of instruction” (p. 528).

Brown, Pressley, Van Meter, and Shuder (1996) conducted a quasi-experimental study to examine the effect that scaffolded, transactional comprehension strategies instructions had on student achievement. The context of the study was a mid-Atlantic school district where the SAIL program was developed. SAIL (Students Achieving Independent Learning) was a transactional strategies instruction program created to teach comprehension to struggling first and second grade students. “All of these reading processes are taught as strategies to students through direct explanations provided by teachers, teacher modeling, coaching, and scaffolded practice, both in reading groups and independently” (p. 23).

The participants of the study consisted of five teachers in transactional strategy instruction classrooms and five comparison teachers who taught using traditional reading instruction methods. The comparison teachers were nominated as effective reading teachers by their principals and/or reading supervisors. Eight of the teachers taught second grade; one SAIL teacher taught a first/second grade combination and one comparison teacher taught a second/third grade combination. The SAIL teachers held an average of 10.4 years of experience, while the comparison teachers held an average of 23.4 years experience.

The student participants were all second-grade students reading below grade level. Students were identified as “below-grade level” through informal district reading assessments, the district’s Chapter 1 assessments, and grades taken from the previous school year. The researchers did administer the Stanford Achievement Test, to ensure that the treatment and comparison group were well matched.

Five low-achieving second grade reading groups received SAIL instruction and five low-achieving second grade reading groups received traditional reading instruction over the course of

the 1991-1992 school year. Each reading group was housed in a different classroom. The achievement of each SAIL group was compared to the most closely matched traditional group.

Data collected included student interviews regarding strategy use, student responses to a retelling measure, student responses to a think-aloud task, and standardized subtests of reading comprehension as word skills. Classroom observations were also conducted and videotaped. The lessons were transcribed for later analysis.

The results from the interviews indicated that students in SAIL classrooms could discuss significantly more strategies that they applied to reading comprehension tasks than the comparison groups by the end of the school year. The same held true for word-level strategies; SAIL students reported using more of these than the comparison students. On measures of recall and think-aloud, the SAIL students performed significantly better than the comparison group. In addition the SAIL students outperformed the comparison group on the end-of-year standardized reading tests.

Classroom observation data were analyzed for evidence of strategies teaching. There was a significant difference in the quantity of strategies taught, with the SAIL classrooms experiencing more than the comparisons. One limitation of the study was that teacher-student interactions were not explicitly described in the report. While the efficacy of the SAIL program was certainly demonstrated, one can only infer that scaffolded instruction (described earlier as a necessary component) had an effect.

The value of scaffolded instruction has emerged as a topic in recent studies of exemplary teaching practices. Taylor, Pearson, Peterson, and Rodriguez (2003) reported on the implementation of the CIERA School Change Project, a reform model based on the characteristics of exemplary literacy instruction developed described in Taylor et al's (2000)

study. In particular, relationships between individual variables (e.g. exemplary teaching practices) and student outcomes were investigated. This study involved 88 teachers and 792 students (grades 1-5) from nine high poverty elementary schools across the nation. All schools were implementing the CIERA School Change Project.

Data collection for the study included a set of student literacy assessments including a standardized comprehension test (grades 1-5), a basal reader program comprehension test (grades 2-5), a standardized measure of fluency (grades 1-5), response to a common writing prompt (grades 1-5), as well as tests of letter identification (grade 1), phonemic awareness (grade 1), and word dictation (grade 1). Fall and spring scores were gathered on all assessments to serve as pre and post measures.

Classroom practices of the participating teachers were captured through structured observations, using the CIERA School Change Classroom Observation Scheme (2000). Each teacher was observed three times (fall, winter, spring) for one hour during reading instruction. Observations were conducted by trained graduated students, all of which reached 80% reliability in the use of the scheme prior to the study. Narrative field notes were taken and then coded (using the CIERA observation scheme) based on categories developed in the Taylor et al. (2000) study. Statistical analysis (HLM) was conducted “to determine which elements of classroom instructional practice accounted for the greatest growth in student achievement across a school year and to investigate the efficacy of our framework of teaching for cognitive engagement” (p. 11). Results that pertain to the teaching interaction referred to as “coaching” by Taylor et al. (2000; 2003), and known as scaffolding by others, will be reported here.

Coaching was determined to have a positive effect on student fluency in reading in grades two through five. “For every standard deviation increase in the coding of coaching...student’

fluency score in a class increased by 4.3 wcpm on average” (p. 12). In addition, the coaching of word recognition strategies was coded with some regularity in grades 1-3 (p. 18). Other factors, including modeled instruction, amount of time spent in comprehension instruction, higher level questioning, and group size, did affect achievement as well.

One limitation of the study was the small number of observations (three per teacher, nine teachers) conducted over the course of the year. While this data provided a description of the instruction in a small sample of classrooms, results cannot be generalized to a larger population without replication. Also, although coaching was separated out in the statistical analysis, indicating a correlational relationship between the interaction and student achievement, causation cannot be proven. Many variables (e.g. classroom management, student engagement, content knowledge, ability to convey the content, appropriate lesson topics to name a few) add up to good teaching; it is the combination of these variables that affects student outcomes in all content areas.

It is difficult to test the independent effect of scaffolded instruction on reading achievement. The teacher must have something to scaffold, whether it is decoding skills or comprehension strategies. Evidence does exist to support that teaching is stronger when the teacher scaffolds the instruction, keeping the learner in the ZPD and at the “cutting edge” of competence. Duffy and colleagues (1986) found that reading skills were taught more effectively and explicitly when teachers scaffolded the learning for their students. Awareness of skill use was increased. Comprehension strategies, through the reciprocal teaching intervention (Lysynchuk et al., 1990), or classroom reading instruction (Brown et al., 1996; Pressley et al., 1992) were also improved via coaching interactions between teachers and student. Taylor et al., (2003) found that coaching increased student achievement in fluency and word recognition

skills. This evidence does support the professional wisdom: scaffolding instruction appears to be a necessary ingredient in student reading achievement.

2.4 IMPLICATIONS

The No Child Left Behind Act (2001) mandated that all children learn to read by the end of third grade. Teacher accountability for the success of student reading achievement is at an all-time high. Still, children enter school with a variety of abilities and instructional needs. In order to guide all children along the path to literacy, these differences must be assessed and addressed. Research in exemplary literacy instruction provides evidence to support the notion that the best teachers do assess the needs and strengths of their students. Further, these expert teachers address the differences in reading ability by changing the instruction to suit the needs of the learners. This is often accomplished through small group instruction, tailored to the needs of the children at the time of instruction. Further, by scaffolding the reading instruction, student learning is accelerated, and achievement is positively affected.

How exactly do exemplary teachers differentiate the instruction for their students? What types of decisions must they make in order to accomplish this? These are the gaps that remain in the literature. We must look closely at the instructional decisions made by exemplary teachers of reading and writing as they differentiate instruction. Further, we must examine the instructional practices employed by these teachers. Such descriptions of effective instruction are vital to improve the practices of teachers, and ultimately create children who can read successfully before they leave third grade.

3.0 METHODOLOGY

The purpose of this study was to provide a detailed description of differentiated reading instruction in an exemplary classroom. A single case study design was employed to capture details about the nature of the teacher's differentiated instruction in response to the needs and abilities of her learners. Insight as to *why* the teacher employed certain instructional techniques was garnered as well. According to Yin (2003) decision-making is often the major focus of case studies. This methodology allowed an in-depth exploration of one teacher's decisions regarding literacy instruction in her classroom.

Borg and Gall (1983) state that most research written as case studies are "based on the premise that a case can be located that is typical of many other cases...each is viewed as an example of a class of events or a group of individuals" (p. 488). Borg and Gall add that once the representative case has been selected, "in-depth observations of the single case can provide insights into the class of events from which the case has been drawn" (p. 488). Stake (1994) refers to this as an *instrumental case study*; the case is chosen to deepen understanding of a particular kind of case. Yin (2003) terms this type of exploration a *representative* or *typical* case. The subject of study for this investigation was selected to capture the nature of reading instruction in exemplary classrooms; the case was chosen to represent teaching interactions in such classrooms.

3.1 PARTICIPANT

The teacher participant in this study was selected from a group of nominated teachers from one rural school district in southwestern Pennsylvania. Principals from the district's three elementary schools, along with the Language Arts Supervisor, were asked to nominate up to three teachers in grades two through four who demonstrate research-based characteristics of exemplary literacy instruction. (Appendix B). This process was consistent with the identification of effective teachers of literacy in previous research (Pressley et al., 1998; Wharton-McDonald et al., 1998; Taylor et al., 2000).

The teacher receiving the highest number of nominations was observed in order to confirm the nomination. This confirmation observation, conducted by the researcher, consisted of one observation of instruction during the regular literacy block. The CIERA School Change Classroom Observation Scheme (2000) was used to document the literacy events that occurred during the scheduled observation. The researcher received previous training in the use of this observation protocol and obtained 80 percent reliability with a team of researchers.

The School Change Classroom Observation Scheme (2000) combines qualitative note taking with quantitative data collection. The observer writes a detailed narrative account of the literacy instruction for a five-minute period. These field notes include a description of the grouping arrangements, instructional activities, instructional materials, teacher-student interactions, and expected pupil responses. At the end of the five-minute period, the number of students who are engaged in the lesson is recorded. The literacy events observed are then coded onto the Observation Scheme, thus providing quantitative data. Upon completion of this coding cycle, the observer resumes the narrative account for a new five-minute period. This continues for the duration of the observation.

The data collected from the observation protocol (Appendix C) was compared to the list of exemplary characteristics utilized in the nomination process. The match was confirmed, and the teacher was invited to participate in the study. The main purpose of the study was described to the selected participant: practices in differentiated reading instruction would be documented. In addition, it was explained to the participant that because she has been identified as exemplary, her practices are important to the field of education. Other educators will gain valuable insight from “typical” interactions that occur in his/her classroom. Benefits to participation in the study include a deeper understanding of reading instruction for the subject, as well as readers of the completed study. The subject’s participation in the study was voluntary and she was compensated for time spent beyond regular school hours.

3.1.1 The exemplary teacher

The selected teacher, Ms. Smith (pseudonym), has taught second grade in the same school district for nine of her eleven years in teaching. Prior to this experience, she served as a Title I teacher in a different school district. Ms. Smith earned a B.S. in Elementary Education and a M.A.T. in Education.

An interview (Appendix D) was conducted following the classroom observations to document Ms. Smith’s instructional beliefs and theoretical perspectives. Through this interview the participant illustrated her ongoing quest for learning. Ms. Smith has been involved in many professional development opportunities through the course of her career, including professional conferences, study groups, and district-level in-service opportunities. On-going professional development has been a key source for building Ms. Smith’s knowledge base in literacy.

Ms. Smith has attended a variety of local, state, and national reading conferences on a voluntary basis. The foci of such conferences included various instructional strategies for reading and writing, all of which have informed Ms. Smith's teaching practices. It is through such conferences that Ms. Smith was introduced to techniques for differentiating reading instruction.

The district employing Ms. Smith has been involved in an Early Literacy Initiative since 2001. Ms. Smith participated in several study groups on a voluntary basis. The study groups met after school hours to discuss different books that they read. The topic of each book revolved around effective, research-based reading and writing strategies. The books and the discussions served as guides for the implementation of new or refined strategies that Ms. Smith attempted in her classroom.

In addition to the study groups, the district provided a number of mandatory and voluntary literacy in-service opportunities to the K-2 teachers. Ms. Smith attended every mandatory, and many voluntary presentations. Topics of the various sessions included effective classroom approaches to teaching comprehension, fluency, vocabulary, and word study. Writing instruction was another topic covered in many of the sessions.

In addition to the described formal opportunities for advancement in her teaching, Ms. Smith engaged in a number of informal activities to promote her instruction. Ms. Smith read a great deal; she read journal articles and books that focused on reading and writing instruction. She attempted to integrate new strategies into her full repertoire. In addition, Ms. Smith regularly spent lunch hours with colleagues to discuss the readings and new teaching techniques.

When asked to describe what she felt was important in teaching reading, Ms. Smith stated the importance of focusing on the process of reading, not a set of isolated skills. She stated that her goal was to teach the students to be independent problem solvers who developed a love for

reading. Ms. Smith went on to explain that this could be accomplished through a “gradual release of responsibility,” which is currently a widely accepted model of instruction (Dorn et al., 1998)

3.1.2 The students

Since Ms. Smith’s interaction with her students was the focus of this exploration, parental notification was provided for all students. (Appendix E). Parents were granted the opportunity to withdraw their child from class on observation days; none of the parents opted to do this. There were 23 students in the classroom, 12 boys and 11 girls. All students in this classroom were Caucasian and represented various SES groups. The students began the school year with a range in reading ability from one year below grade level to at least one year above grade level, according to benchmark running records. According to these records twenty-two percent of the students were reading below grade level in the fall. Thirty-five percent of the students entered the classroom reading grade-level material, and forty-three percent of the students were reading above grade level. Although a range in ability still existed, all children were reading at grade level or above at the conclusion of the study.

Approval to conduct the study in this district was granted by the district’s Superintendent (Appendix F). The participating teacher volunteered to take part in the study as well (Appendix G). In addition, the Institutional Review Board (IRB) at the University of Pittsburgh (Appendix H) conducted a review of this research. The IRB determined that approval for the study was not necessary due to the observational, not experimental, nature of the study.

3.2 SETTING

Martin Elementary School (pseudonym) is one of three elementary schools in a small, rural school district in southwestern Pennsylvania. The school serves students in grades K-6 and includes one learning support classroom and a gifted program. The school's 622 students were primarily White (99%). The percentage of economically disadvantaged students at Martin Elementary School was 11 percent, considerably lower than the district average of 20.8 percent. As a result of the low number of economically disadvantaged students, the Martin Elementary School did not qualify for Title I school-wide status. However, the school did implement a program that mirrored the Title I program in the district's other two elementary schools.

The school environment was positive, upbeat, and print-rich; characteristics commonly noted in schools considered exemplary by other researchers (Pressley et al., 1998; Wharton-McDonald et al., 1998; Morrow et al., 1999; Taylor et al., 2000). The building principal possessed a strong background in literacy instruction, including Reading Recovery® training and experience as a Title I coordinator. Because of her strength in literacy instruction, the principal informally coached teachers in literacy strategies as needed. Each teacher at Martin Elementary was expected to plan 120 minutes of literacy instruction each day. All K-3 teachers in the district have participated in professional development opportunities provided through the district's literacy initiative, which began in the 2001-2002 school year. The researcher of this study was previously employed as literacy consultant in the district; her role was to present instructional strategies and coach teachers as they implemented the strategies.

The Harcourt Brace reading series was provided for teachers to use as a support to the district language arts curriculum. Each school in the district also housed a Literacy Resource Center, where teachers could choose small sets of leveled texts to use in reading instruction.

Professional development was provided to the elementary school teachers to support the use of these resources, as well as to encourage differentiated reading instruction.

3.3 DATA COLLECTION SOURCES

Rooted in ethnographic research, a descriptive case study was used to provide a description of Ms. Smith's differentiated comprehension instruction. Traditional ethnography places emphasis on exploration of the nature of a particular phenomenon (Atkinson & Hammersley, 1994), in this case differentiated reading instruction. Further, ethnographic studies involve working "primarily with unstructured data" (Atkinson & Hammersley, 1994, p. 248), such as observations and unstructured interviews. Ethnographic investigations typically involve a small number of cases, often just one case in detail (Atkinson & Hammersley, 1994).

While the nature of a case study stems from ethnographic studies, this exploration will involve more than observation alone. According to Yin (2000),

Ethnographies usually require long periods of time in the 'field' and emphasize detailed, observational evidence. Participant-observation may not require the same length of time but still assumes a hefty investment of field notes. In contrast, case studies are a form of inquiry that does *not* depend solely on ethnographic or participant-observer data (p. 11).

Observational data was collected on five days over the course of two weeks, in an effort to capture the differentiated instruction over a typical period of instruction.

A pilot observation of one hour of reading instruction, with a different teacher, was conducted prior to beginning the study. The instruction was videotaped for this pilot observation. Analysis of this pilot observation allowed the researcher to define possible codes or areas of

interest for the subsequent classroom observations, as well as plan needed modifications for the study.

Several sources of data were collected to provide a complete picture of how Ms. Smith instructed her students during this unit of study. Brief, informal teacher interviews were conducted prior to each lesson to illuminate the teacher’s focus. Field notes of the observed lessons were kept, and audiotapes documented reading instruction over the course of the sample time period. In addition, one feedback interview was conducted to elaborate on the decision-making during the observed lessons. This interview was conducted at the end of the study, in order to avoid data contamination. Artifacts, such as lesson plans, student assignments, and relevant teaching handouts were collected. Table 1 provides a timeline for the data collection. Each data source is described in detail in the section following the table.

Table 1. Data collection timeline

Data Source	Collection Date
Classroom Observations	May 18, 2006-May 25, 2006
Brief Informal Teacher Interviews	May 18, 2005-May 25, 2006
Teacher Feedback Interview	May 31, 2006
Teacher Belief Interview	May 31, 2006
Classroom Artifacts	May 18, 2006-May 25, 2006

3.3.1 Classroom observations

“Qualitative observation is fundamentally naturalistic in essence; it occurs in the natural context...among the actors who would naturally be participating in the interaction, and follows

the natural stream of everyday life” (Adler & Adler, 1994, p. 378). These types of naturalistic observations were conducted for five days, spanning the entire block of reading instruction, approximately 110 minutes each day. The researcher assumed the role of *observer-as-participant*, described as “those who enter settings for the purpose of data gathering, yet who interact only casually and nondirectively with subjects while engaged in their observational pursuits” (Adler & Adler, 1994, p. 380).

Audiotapes and extensive narrative notes were taken to document the group size, lesson focus, materials used, teacher-student interactions, and other relevant information during each lesson. Particular attention was paid to how these aspects varied among lessons. Observations conducted were coded based on the findings of the pilot observation, in addition to new codes that emerged during the observations. A detailed description of these codes is provided in chapter four.

3.3.2 Teacher interviews

Brief informal interviews. The teacher was asked to provide a brief statement of focus prior to the reading instruction delivered each day. These interviews allowed the participant to describe her planned lesson, as well as the rationale behind her plan. The statement was recorded on audiotape and transcribed for analysis.

Feedback interview. An unstructured interview was conducted with the participant upon completion of the classroom observations. Questions were asked to elicit reflection on each day’s lesson. Subsequent questions were asked to encourage elaboration on decisions made regarding the information documented from the observations, including group size, lesson focus, materials used, and teacher-student interaction for each lesson. Ms. Smith was also asked to provide

insight about the differences in her instruction among the groups taught each day. Such insight from Ms. Smith was essential to explaining the rationale behind her decisions.

Teacher belief interview. Once the observations were completed, the researcher conducted a structured interview with the subject. One purpose of the interview was to gather information regarding teacher beliefs and practices. Questions regarding teacher training, professional development, and beliefs were asked (Appendix D).

3.3.3 Classroom artifacts

Ms. Smith was asked to submit lesson plans upon completion of the project. Lesson plans included learning goals, descriptions of activities to be introduced or reinforced, and the rationale for these activities. Copies of student assignments and relevant handouts were submitted for each lesson as well. Each of these artifacts was used to clarify the information provided in the observations and interviews.

3.4 DATA ANALYSES

Audiotapes of the observations were transcribed prior to analysis. The processes of data reduction, as well as conclusion drawing and verification were employed in the analyses of the transcriptions and field notes (Huberman & Miles, 1994). Data reduction refers to the process of summarizing the data through coding, clustering and defining themes. Conclusion drawing and verification entails the interpretation of data through comparing and contrasting information,

noting patterns and themes, and triangulation of the data sources. Thus, coding was recursive in nature, using themes that were discovered through the analyses.

Data collected from the observations and interviews were coded as described and stored using the code and retrieval software system, QSR N6. This software allowed the researcher to label passages based on codes developed prior to or during analysis. The collection of identically coded passages (retrieval) was carried out in an efficient manner using this software (Richards and Richards, 1994). Recurring themes were explored and described from the observed lessons. Excerpts from observation transcripts, field notes, and interview transcripts were retrieved from QSR N6 to exemplify key components of the differentiated lessons. Classroom artifacts were analyzed to clarify information when needed.

3.5 RELIABILITY AND VALIDITY

Quality is of utmost importance in all research. It is important that measures are taken to ensure the trustworthiness of the data collected and the conclusions reported. Reliability of a study refers to “whether the process of the study is consistent, reasonably stable over time and across researchers and methods” (Miles & Huberman, 1994, p. 278). Miles and Huberman (1994) suggest that the research questions must be clearly defined, the researcher’s role must be planned and defined, and the collection of data consistent across researchers. These measures were taken to ensure the reliability of this study. Miles and Huberman (1994) also recommend coding checks for the data analysis. The researcher employed the help of a trained graduate student to increase inter-rater reliability of the data coding during analysis.

According to Miles and Huberman (1994), internal validity refers to the “truth value” of the study’s findings (p. 278). Methods such as triangulation and member checking add to the validity of a study. In this case study, information from the qualitative sources of data described was triangulated with data obtained from the classroom artifacts in the analyses. According to Stake (1994),

Triangulation has been generally considered a process of using multiple perceptions to clarify meaning, verifying the repeatability of an observation or interpretation. But, acknowledging that no observations or interpretation are perfectly repeatable, triangulation serves also to clarify meaning by identifying different ways the phenomenon (p.241)

The classroom artifacts were intended to provide insight into the teacher’s intentions prior to the lesson. The observation data provided insight regarding the teacher’s actions, while the interview data provided reflective information regarding decisions that were made. Together, a complete picture of this exemplary teacher’s differentiated reading instruction emerged. Member checking was employed in addition to the triangulation of data. The teacher interviews were transcribed and then sent to the participant for review.

Peer debriefing with two colleagues was conducted throughout the data collection and analysis periods. Two of the five observations were conducted with a trained graduate student, and compared for depth of content. Observations, analysis, theories, and findings were regularly discussed with one or both of these peer debriefers. This allowed outside perspectives on the study, which enhanced the credibility of the findings (Maloch, 2002).

External validity, according to Miles and Huberman (1994), deals with the generalization of the findings of the study. According to Yin (2003), “a single-case study is analogous to a

single experiment, and many of the same conditions that justify a single experiment also justify a single-case study” (p. 39). Descriptive evidence reported from this study may later be utilized in a replication, or in an attempt to build a theory regarding the nature of effective differentiated reading instruction. Patterns of interaction in effective differentiated reading instruction were recorded that may be used to strengthen future studies.

3.6 SUMMARY

A single case study design was employed to describe the nature of effective differentiated reading instruction. The main participant was an exemplary teacher, nominated by her school district; the students in the classroom were secondary participants. The researcher observed reading instruction, documenting the observations through field notes and audiotape. A feedback interview was conducted in order to gain insight from the teacher participant regarding instructional decision-making from each lesson. Classroom artifacts were collected to provide insight to decisions made prior to, during, and following the lesson. Major themes that emerged from the data were written to provide a detailed description of exemplary differentiated reading instruction.

4.0 ANALYSIS OF DATA

The purpose of this study was to investigate and describe the nature of small group differentiated reading instruction in one exemplary second grade classroom. It has been demonstrated repeatedly in research that the most effective teachers of literacy adapt instruction to meet the needs of individuals in their classroom, often through small group instruction. It was determined that the students in this classroom were at varying level of literacy development; therefore, the teacher had grouped the children based on reading level. It was assumed that the teacher would design different lessons for each group based on the needs of the members. Of particular interest was the decision-making of the teacher as she planned and conducted these lessons.

4.1 OVERVIEW OF DATA ANALYSIS

Data analyses were ongoing throughout the data collection process with the use of the constant comparison method (Strauss & Corbin, 1990). The main analysis reported here consisted of a two-stage process of reviewing the transcribed small group lessons. Inter-rater reliability was determined by two raters who coded twenty percent of the transcripts and twenty percent of the field notes. Agreement between the two raters was found to be 87% on the field notes and 82% on the transcripts.

In addition, the following data sources provided information to crosscheck the transcripts: expanded field notes of classroom literacy instruction, teacher interviews, classroom artifacts, and theoretical memos used to develop hypotheses regarding teacher decision-making. For example, during several transcribed lessons, one student was asked to read aloud. This could have been coded as part of the lesson focus, reading aloud. However, field notes revealed this to be an example of assessment; the teacher was taking a running record of the child's reading behavior.

4.1.1 First stage of analysis

During the *first stage* of analysis, field notes and audio transcripts were reviewed with two colleagues to identify initial patterns and themes in the data related to lesson differentiation (Strauss & Corbin, 1990). An in-depth analysis of one lesson was conducted, the coding scheme was refined, and the first transcript was re-coded by the researcher and a colleague. Remaining transcripts were coded, and refinement of the categories continued throughout the data analysis. Because the nature of the teacher's talk emerged as one source of lesson differentiation, this discourse was examined in the *second stage* of analysis. The codes that emerged from the first stage of analysis are listed and described in Table 2.

Table 2. Coding scheme

Code	Definition
Time	Time and frequency spent in small group instruction.
Materials	Types of materials used by students and/or teacher in small group lesson.
Lesson Focus	Instructional focus for small group lesson.
Post Reading Assignment	Teacher assignment for student response following reading.
Assessment	Assessment tools utilized by teacher to inform small group instruction.
Teacher Talk	Scaffolding, through talk, provided by the teacher during small group instruction.

A sample transcript complete with stage one codes is provided in Appendix I.

4.1.2 Second stage of analysis

The amount of teacher versus student talk was calculated to determine whether there was a difference among the groups. The quantified measure of teacher talk, however, was not as interesting as the quality of teacher talk. Research supports the notion that that low-achieving readers may attain average reading levels with appropriate scaffolded instruction (Rodgers, 2004). Therefore, a microanalysis of teacher discourse patterns related to student scaffolding was conducted, further supplementing the constant-comparative method of analysis. Scaffolding sequences (Stone, 1998) were analyzed, and four codes were adapted from a study conducted by

Roehler and Cantlon (1997). During this microanalysis the focus was placed on the nature of the teacher’s spoken interventions and the student utterances surrounding those interventions. An utterance was defined as a turn-taking episode in speech. The following table provides a list and description of the codes used to categorize verbal scaffolding through teacher talk during the small group lessons.

Table 3. Teacher talk

Verbal Assistance Type	Definition
Direct Explanation	Explicit statements used by the teacher to assist students in understanding a concept or strategy.
Explicit Modeling	Verbal demonstration of strategy application. Includes think alouds and talk alouds.
Invitations to Participate	Statements used by teacher to encourage student participation by eliciting student to provide explanation, elaboration, or direct evidence from text.
Clarification	Guided discussion or questioning used by the teacher in order to help correct student misunderstanding.
Verification	Confirmation of valid or correct student response.
Telling	Teacher provides answer for student in order to continue the discussion or the reading.

An excerpt from one transcript coded for teacher talk can be found in Appendix J.

4.2 DESCRIPTION OF DAILY READING INSTRUCTION

Each day in the observed second grade classroom began with a reading block that lasted the entire morning. Literacy instruction continued each afternoon with writing instruction through the Writer’s Workshop approach. Table 4 lists and describes the major components of daily reading instruction.

Table 4. Components of reading instruction

Component	Instructional Focus	Grouping Arrangement	Approximate Time Frame
Independent Seatwork Morning Announcements	Strategy Application	Individual	20 minutes
Morning Message	Reading Strategies Writing Strategies Math Strategies	Whole Class	20 minutes
Individual Reading Conferences	Reading Strategies Reading Assessment	Individual (2-3 per day)	25 minutes
Shared Reading	Reading Strategies	Whole Class	15 minutes
Small Group Reading (combined with Literacy Centers)	Reading Strategies	Small Groups (1-2 groups per day met with teacher)	40 minutes

4.2.1 Whole class instruction

All students in the observed classroom received daily whole group reading lessons. Ms. Smith modeled new strategies, discussed literature, introduced different genres, and reinforced previously taught information during these lessons. Lesson focus was determined primarily by the school's grade level curriculum. Pacing was determined by the abilities of the students; that is, Ms. Smith assessed the group learning, and re-taught or accelerated this whole class teaching as necessary.

The literacy block began with a whole group meeting held in a gathering spot on the carpet. The students read silently from a Morning Message written on a large easel pad by the teacher. A variety of reading and writing strategies were modeled for the group; math instruction was integrated into two of the observed lessons. In addition, students were expected to participate in the application of reading strategies during the lesson, sometimes individually and sometimes chorally with the group. Each Morning Message concluded with a student-led description of "what good readers do." Students were required to provide examples of what one good reader did during the day's Morning Message lesson. The instructional focus of the morning message changed according to the needs of the students. Fluency, decoding, vocabulary, and comprehension strategies were all introduced during the observation period. The specific instructional focus of each observed Morning Message is described in Figure 5.

Table 5. Morning message

Observation Day	Morning Message	Reading Focus	Content Area Integration
Day One	Thinking Thursday	Fluency	Math (solving word problems)
Day Two	Finish-up Friday	Fluency Main idea Analogies	Writing (paragraphs, lists, analogies)
Day Three	Marvelous Mondays	Spelling Patterns (r-controlled vowels) Vocabulary (suffixes) Fluency Main Idea	Writing (paragraphs)
Day Four	Wacky Wednesday	Fluency Vocabulary (antonyms and synonyms) Genres (listing)	Writing (lists-guided)
Day Five	Thinking Thursday	Fluency	Math (solving word problems)

A second type of daily whole group meeting was described by Ms. Smith as a Shared Reading lesson. The teacher modeled reading strategies with a big book, poster, or overhead transparency so that all students could attend to the text simultaneously. Students were asked to read along or answer specific questions using the modeled strategies. When asked about her rationale for teaching whole class lessons in this way, Ms. Smith answered, “I think it is important to model, to do things ‘shared.’ The guided reading, the independent practice. The gradual release of responsibility, to, with, and by.”

These whole class lessons were devoted to introducing new strategies through teacher modeling. For example, Ms. Smith used a big book about the coral reef to demonstrate how to determine the main idea of a passage. Students were asked to determine the main point or big idea of each page of the book. The teacher recorded the students’ answers on a sticky note and attached the note to each page. This information was reused the following day when the teacher illustrated the difference between main idea and determining important facts. The shared reading lessons conducted over the observed time period were all comprehension lessons. The teacher planned these lessons to deepen the students’ understanding of informational text, an important skill for young readers. The instructional focus of each observed shared reading lesson is described in Table 6.

Table 6. Shared reading instruction

Observation Day	Shared Text	Lesson Focus	Content Area Integration
Day One	Big Book: <i>Life in the Coral Reef</i>	Determining main idea	Science
Day Two	Big Book: <i>Life in the Coral Reef</i>	Determining important facts (versus main idea)	Science
Day Three	Overhead Transparency: <i>What is a Shell?</i>	Determining important facts	Science
Day Four	None	None	None
Day Five	Overhead Transparency: <i>What is a Shell?</i>	Diagrams in informational text	Science

4.2.2 Individualized instruction

Following the whole-class reading lesson Ms. Smith held individual reading conferences with two to three students daily, while the remaining class members engaged in self-selected silent reading. These individual conferences were held throughout the year. Each student met with the teacher at least once per quarter; however, children who struggled with reading met with Ms. Smith several times per week. These meetings were opportunities for individualized assessment and teaching. Ms. Smith assessed each student by taking a running record on a student-selected

text. In addition, Ms. Smith engaged each student in a conversation that allowed the reader to demonstrate the level of comprehension achieved on that particular text. Reading strategies, goals, and preferences were often topics of these conversations as well. Ms. Smith explained that one purpose of these conferences was to gather information for planning small group lessons.

4.2.3 Small group reading instruction

In addition to daily whole group lessons and occasional individual meetings, the students in Ms. Smith classroom participated in small group reading instruction. Each group was comprised of four to five students. The number and membership of the groups, as well as the frequency of small group lessons, changed over the course of the school year based on the needs of the readers. During the observation period, Ms. Smith taught lessons to five different groups of children. Membership was based primarily on instructional reading level as determined by running records. Students were further grouped by reading preferences. For example, if more than five children read at the same instructional level, Ms. Smith split the group based on interest so that a text could be selected to match the preferences of the readers.

Children who were not meeting with Ms. Smith for small group instruction worked at Literacy Stations. Small groups of students completed assigned tasks either independently or with the support of their group members. Assignments were provided by Ms. Smith, and were designed to extend the use of skills and strategies previously taught to the whole class. During the post observation interview Ms. Smith explained that some of the tasks were intentionally tiered to match the reading and writing levels of each student. Students selected the order in which they completed the required tasks, as well as the children with whom they worked.

Ms. Smith engaged her students in more individual and small group reading instruction than whole group reading instruction. This pattern was consistent with findings in previous exemplary literacy research instruction (Taylor, et al., 2000; Taylor et al., 2002b).

4.3 DIFFERENTIATED SMALL GROUP READING INSTRUCTION: A DETAILED DESCRIPTION

The focus of this study was the manner in which Ms. Smith differentiated the small group reading instruction in her classroom. This was accomplished by varying the following components in each lesson: time, materials, focus, teacher talk, and post-reading assignments. The variation of each lesson was determined through the use of on-going assessment, which will be described following an explanation of each component.

4.3.1 Time

Ms. Smith met with at least one small group of students for reading instruction on each of day of observation. Each group met with the teacher at least once during the five day observation cycle; however, students who were struggling with the acquisition of strategies met with Ms. Smith more often. A description of the time spent with each group is provided in Table 7.

Table 7 Time and frequency of meetings

Group Number	Number of Students	Class Rank	Reading Level	Time (Min./Freq)
1	5	Highest (tied)	Q (Grade 4)	25 minutes 1 session
2	4	Highest (tied)	Q (Grade 4)	33 minutes 1 session
3	4	Average	N (Grade 3)	30 minutes 1 session
4	5	2 nd Lowest	M (End of Grade 2)	20 minutes 1 session
5	4	Lowest	L/M (End of Grade 2)	30 minutes 25 minutes 3 sessions (2 observed)

In addition to the daily whole group lessons, four of the five groups met once with the teacher for differentiated reading instruction during the observation period of this study. This included group 4, which was considered the second lowest group in the course. This group was, however, reading grade-level materials with accuracy and good comprehension. The members of the group were also learning new strategies at a good rate. Group 5, the lowest group, met with Ms. Smith three times during this time span, two of which were observed. In the post-observation interview Ms. Smith explained that this reading group required several meetings per

week, even though they were capable of reading grade-level materials. Frequent meetings were necessary so the students in the group could discuss the materials read while the new information was still fresh in their minds, as well as reinforce strategies taught at previous whole group and small group lessons. This level of support was akin to the level of support needed by the average readers at the beginning of the school year. As the students progressed in their ability, Ms. Smith released the responsibility for reading and responding to the text to the students, meeting with them less frequently.

The length of the meetings during the observation period was similar across groups. Lessons lasted from twenty to thirty minutes during this period; the average time spent in small group instruction was twenty-seven minutes. When asked how this was determined, the teacher explained that she took as much time as she needed to teach the planned material. She added that conversations and questions often took an unplanned path, which sometimes changed the length of the lesson. Ms. Smith generally conducted her small group lesson at the same time each day; it was a part of the “literacy block” routine. Small group instruction was the last portion of this block, upon completion of which students were dismissed to lunch. In essence the constraint of the school day schedule, or the classroom routine, limited the time used for such lessons.

In the post-observation interview Ms. Smith described how she adjusted the amount of time devoted to small group instruction over the course of the school year. Each small group met with Ms. Smith several times per week at the beginning of the school year; the number and frequency of the meetings was based on group need. Struggling readers met more frequently than average or accelerated readers. As the school year progressed, the membership of the groups changed as student abilities grew at different rates. Also, the small groups met with Ms. Smith

less often, because they were able to read and respond to assigned texts independently between sessions.

4.3.2 Materials

Each group that met with Ms. Smith used a different trade book for the instructional focus of the observed small group lesson. The core reading program at Martin Elementary School could be described as a “homegrown” program, based on recent research in practices of exemplary literacy instruction (Taylor et al., 2002b; Walpole, Justice, & Invernizzi, 2004). Therefore, Ms. Smith was not required to follow the scope and sequence of a basal series.

Such a student-centered approach to teaching reading requires professional decisions making based on a deep knowledge of the reading process. This decision-making can result in responsive teaching, which accelerates student learning (Rodgers, 2004). In contrast, adoption of a basal reading series as the core program can result in a one-size-fits-all model that actually widens the gap in student achievement (Allington & Walmsley, 1995; McGill-Franzen et al, 2006). One rationale for responsive teaching is to attempt to close the achievement gap (Walpole et al., 2004). Table 8 provides a list and description of the reading materials used during the observed period.

Table 8. Reading materials used for small group instruction

Group	Class Rank	Reading Level*	Text Title (Level)	Description
1	Highest (tied)	Q (4 th)	<i>Iditarod</i> (M) (lower level to complement a higher level novel previously read)	Informational Trade Book
2	Highest (tied)	Q (4 th)	<i>Charlotte's Web</i> (Q)	Fiction Chapter Book
3	Average	N (3 rd)	<i>Amber Brown Wants Extra Credit</i> (N)	Fiction Chapter Book
4	2 nd Lowest	M (2 nd)	<i>Stanley in Space</i> (M)	Fiction Chapter Book
5	Lowest	L/M (2 nd)	The Gift of Writing (L) <i>The Man Who Loved the Sea</i> (M)	Fiction Trade Book Informational Trade Book

* Guided Reading Level (Fountas & Pinnell, 1996) and approximate grade level equivalent.

The topic of text selection was discussed during the post observation interview. Ms. Smith explained that she selected different reading materials for each small group lesson conducted. She further explained that each decision was based on the instructional reading level

of the group, the curriculum required by the district, and the interests of the group members. A basal reader was available for Ms. Smith to use as a resource; stories from the basal were used if they matched the instructional level of the group members and the teaching focus.

Materials for reading instruction were gathered from several resources. Ms. Smith possessed an extensive classroom library filled with short trade books of a variety of genres that were published for the purpose of small group reading instruction. Ms. Smith also used a variety of chapter books, picture books, and beginning novels from her classroom library. When necessary, she borrowed books from the school's literacy resource center. She attempted to balance the genre of text used throughout the school year.

Other materials were used during the small group lessons as well. There were sessions where Ms. Smith used a white board to write key questions for the group lesson. The white board was also used to demonstrate decoding strategies for the lowest ranked group in the class. Response journals were used to assess reading comprehension in several of the groups. Students were asked to respond to a question or statement in their journals. The teacher either read the journals upon collection, or asked the group members to share their responses during the lesson. These responses were used to determine understanding of the text, as well as application of strategies that had been taught. For example, after teaching the students how making a connection with a character in a text can increase comprehension, Ms. Smith would ask the students to write about personal connections in their journals. The teacher would then assess the written responses to determine the depth of each student's understanding. Ms. Smith used such information to plan the teaching points in later lessons.

Teacher created handouts were used in one of the observed small group lessons. These handouts were used as reminders, or scaffolds, for reading strategies. For example, students

involved in the session were beginning to use the technique of Literature Circles (Daniels, 2001) for their lesson. The teacher provided each group member with a role sheet, which explicitly defined the tasks they were to complete. Students filled in key sections of the role sheet with information gathered prior to the group meeting. Ms. Smith explained that such materials were used as needed, until the students could successfully complete tasks independently, throughout the course of the school year.

4.3.3 Lesson focus

Small group reading instruction was referred to as “Book Talk” time in Ms. Smith’s classroom. Although each group had at least one opportunity to meet with the teacher during the observed time period, the structure and focus of these meetings varied across groups. Table 9 illustrates the differentiated group structures and instructional foci used by Ms. Smith during small group reading instruction.

Table 9. Lesson structure and focus

Group Number	Class Rank	Reading Level	Lesson Structure	Instructional Focus
1	Highest	Q (Grade 4)	Book Club	Comprehension <ul style="list-style-type: none"> • Making Connections • Main Idea
2	Highest	Q (Grade 4)	Literature Circles	Comprehension <ul style="list-style-type: none"> • Questioning • Character Traits
3	Average	N (Grade 3)	Book Club	Comprehension <ul style="list-style-type: none"> • Character Traits • Predictions • Making

				Connections Word Study • Vocabulary
4	2 nd Lowest	M (End of Grade 2)	Book Club	Comprehension • Making Connections • Character Traits • Questioning
5	Lowest	L/M (End of Grade 2)	Guided Reading	Comprehension • Making Connections • Character Traits Word Study • Decoding • Vocabulary

During the observation period, three of the five groups engaged in meetings similar to Book Clubs as described by McMahon and Raphael (1997). Book Clubs were developed to be small group student-led discussions within a teacher-created instructional context. The intent was that students would use age-appropriate texts to apply previously taught strategies in their reading. The following is an excerpt from one such observed lesson in Ms. Smith's classroom:

T: Ok. When I read this (the assigned chapter in *Stone Fox*), it reminded me of something that you told me you guys were doing in library.

S: We were watching the movie *Balto*.

T: And isn't that the story of Balto?

S: Yeah, Balto was that...I think he was the leader of that team.

S: The lead dog.

S: Yeah. He was the lead dog.

S: I don't think Steel ever existed.

S: Yeah. Steel wasn't a real dog. That was just in that made-up movie called Balto.

T: Ok, so tell me this. We're talking about three different texts because I know we have the book Balto right over here, which I was going to put out.

T: Yeah, we have the book too.

S: I also heard that the lead dog always has to be the smartest and the strongest.

T: Tell me why.

S: Usually 'cause he has...well, he has to be smartest because he has to know how to make the dogs do what he needs them to.

S: Like when to take a break or when to keep going.

S: Like when to take a break, which way to turn um...and so the musher can trust him the most.

T: You know I think that was one of the things I learned the most in this was...is how careful you have to be of your dogs.

S: You can't have your lead dog...you can't have your lead dog step in water or anything because then their paws will freeze and they won't be able to move again.

T: It talked a lot about taking care of your dogs.

S: There's a page of it.

S: Right there. They put these little things around their paws to protect them.

In Ms. Smith's classroom the meetings categorized as "Book Clubs" were open conversations about the book each group had read. The teacher played the role of participant, but gently led the instructional focus of the discussion. The foci of each group meeting were comprehension, enjoyment, and the extension of strategies that had been taught in previous lessons. For example, making text-to-text connections was a strategy that Ms. Smith had taught

throughout the school year; the students in the previous excerpt used this strategy extensively. Although the teacher provided each group with texts that were matched to their approximate reading level in her classroom, the students in Ms. Smith's Book Clubs groups did control the direction of the conversation.

The lowest ranked group in Ms. Smith's classroom participated in small group instruction structured in a manner similar to Fountas and Pinnell's (1996) Guided Reading lessons. In this type of lesson, teacher-led discussions were centered on a particular skill or strategy that was introduced and/or reinforced in the small group lesson. Also, Ms. Smith selected texts to match the instructional level of the students, another common feature in Guided Reading lessons. With this particular group in Ms. Smith's class, decoding was one focus of both lessons that were observed. The following is an excerpt from one such lesson:

T: This is the tricky chunk that's in there. That 'ch'. How does it sound in the word 'machine'?

S: Shhhhhh.

T: It kind of sounds like an s-h doesn't it?

S: Yeah. It sounds alike but it's spelled differently. It's like a homophone or...

T: Yeah.

S: People think there's an s-h in my last name (*says her last name*).

T: But it's not there is it? So we know and we've talked about all year, how letters sometimes sound different than what they look. And you have to think about that because I noticed a lot of you, when you were reading those sentences, you were saying 'He also loved...' and I know I worked with (child's name), and he was saying that 'mach-', 'mach-' sound. And then we got stuck because the ending didn't match. So we had to

think about what happened and what would make sense in that sentence. That c-h actually comes up...I was trying to brainstorm some words so that you could look at that c-h sounding a little bit different. Look at that word. (Teacher writes word on white board).

Ms. Smith continued the lesson by providing other words, not contained in the text, that were spelled with the ch- combination. The lesson was not limited to decoding strategies, however. The teacher also led the students in a conversation where students could apply comprehension strategies that were previously taught, as well:

T: Find for me a really interesting part. Remember it's more than just what you liked; think about something that's really interesting. (Pause) Because remember when we read *Life in the Coral Reef* we talked about what was important and what was interesting.

S: I think this is kind of interesting.

T: Ok. (Student's name) why don't you get us started? Tell us what interesting part you found.

S: I found this one that it says he got...do I read this?

T: However you want to tell us. If you want to read it that's fine.

S: I'll read it. 'Jacques got many awards for his work. He died in 1997. The world said a sad goodbye to the man who loved the sea.'

T: Ohh...so that was interesting wasn't it? He got lots of awards for all of those things that he did. Still a little bit sad there when it talks about somebody dying.

S: There's something interesting too...another thing...that I was born on the year that he died.

T: Ohhhh! I did miss...I missed that. Ok. So what was interesting is when he died was the same year you were born.

S: Yeah, cause that's when I was born, 1997.

T: Ok, so you had your own text-to-self connection there. Good job! Ok, I bet you'll always remember that date won't you?

S: Yeah. I've never forgotten it.

Ms. Smith modeled and discussed the importance of locating interesting information, as well as making personal connections, in previous strategy lessons. These two strategies were reinforced during this part of the lesson.

The final structure Ms. Smith employed in the observed small group lessons was Literature Circles (Daniels, 2001). In this type of lesson, Ms. Smith assigned each student a task to complete with the support of role sheets that she adapted from Daniels' book. The format of this lesson had been taught and practiced on numerous occasions with this group. In the observed lesson the students used their completed role sheets to discuss the book, *Charlotte's Web*, in a structured manner. One of the assigned roles was that of connector, a person assigned to explain the connections made during the reading. The following is an excerpt from the observed literature circle lesson that highlights this role:

T: (Student's name) tell us about the connections you had with this.

S:

T: Ok...

S: Or tried to get him. I like animals. Fern likes animals. Fern was so sad when she had to give her pig away. I was sad when I had to give my kitten away.

T: So you could really understand how Fern felt and that helped you understand the story didn't it? You could really understand those feelings.

Ms. Smith had the opportunity to describe Literature Circles during the post observation interview. She explained that through the assigned roles used in Literature Circles students learned to deepen their literary discussions, as well as center their discussions on key strategies that were previously taught to the class. The strategy of making personal connections with text had been taught in various lessons; it was reinforced through the use of Literature Circles in this lesson. Such higher-level conversations were commonly cited in studies of exemplary literacy teachers (Taylor, et al., 2000; Taylor et al., 2002b; Taylor, et al., 2003).

During the post-observation interview Ms. Smith was asked to explain her rationale for the type of lessons she planned for each group. Ms. Smith explained that this decision was based on the abilities of the group members. She further explained that student ability was determined through classroom based assessments and teacher-student conversations. Ms. Smith attempted to provide the appropriate amount and type of support needed for the students to comprehend and enjoy the assigned text. If the students needed word-work, the lesson focused on that. If the students required structured roles for discussion, the teacher assigned those roles. If students were capable of leading the discussion, Ms. Smith allowed for that as well. The main goal was to get all of her students to read, comprehend, and discuss books in a meaningful way. In the following interview excerpt, Ms. Smith described why she chose a decoding lesson for Group 5:

Researcher: Why did you do word work with this group?

Teacher: I think it was because I noticed that every student made a miscue when reading the word *machine*. It came up in different places in the text, so when I listened to each of

the group members, that really stood out with each one. So, I decided to plan the word work for our next meeting.

R: How do you think that lesson worked for those children? Did you see any carry-over with their decoding?

T: During that lesson, they still had some trouble, even with the word chauffer. They do know the word machine now, and can read it in context. But the sound made by /ch/ required more guidance for this particular group. They need more practice with this sound to independently apply it. That seems to be true of a lot of sounds with this group.

R: What about your other groups?

T: We did word work at the beginning of the year, some in the middle of the year. But, most of the children don't need this now. When they do need it, I point it out, and they pick it up very quickly. Repeated work isn't usually needed.

Ms. Smith's teaching was student-centered; she tailored the lesson focus to the immediate needs of each group. She re-taught skills and strategies as needed; she did not depend on a particular scope, sequence, or curricular pacing to accomplish literacy goals. Instead, teaching decisions were based on classroom-based assessments, which revealed students' needs, and Ms. Smith's deep knowledge of the reading process. Such professional decision-making has been cited as a hallmark of exemplary literacy instruction (Pressley, et al., 1996; Pressley et al., 1998; Taylor, et al., 2002a).

4.3.4 Post-reading assignments

Ms. Smith assigned different post-reading assignments to each group. During the observed period post-reading assignments included re-reading a text, reading ahead, integrating and

applying known strategies while reading, writing a response, and creating a game. The students devoted time to such assignments daily, either in the literacy block or at home. Ms. Smith designed assignments requiring student practice and application of strategies taught in whole group and small group lessons. The differentiated nature of the post-reading assignments in Ms. Smith's classroom is highlighted in Table 10.

Table 10. Post-reading assignments

Group Number	Class Rank	Reading Level	Post-Reading Assignment
1	Highest	Q (Grade 4)	<ul style="list-style-type: none"> • Play student created game (based on book)
2	Highest	Q (Grade 4)	<ul style="list-style-type: none"> • Integrate all Literature Circle roles as reading next assigned chapters. Record findings on post-it notes.
3	Average	N (Grade 3)	<ul style="list-style-type: none"> • Journal Response: character traits • Read next several chapters.
4	2 nd Lowest	M (End of Grade 2)	<ul style="list-style-type: none"> • Journal Response: compare/contrast characters • Read next several chapters
5	Lowest	L/M (End of Grade 2)	<ul style="list-style-type: none"> • Re-read text • Locate (from previously read text) and record interesting facts on post-it notes. • Present facts to class

Ms. Smith required the students in Group 5 to silently reread their books during or after each of the observed lessons. Re-reading a text was assigned to this group for several reasons. Ms. Smith found that the children in this group often did not understand the text fully, missed out on key information, or forgot key episodes from the text, all of which impeded comprehension. Re-reading allowed the students a second chance to gather the important information from the page, as well as focus their reading as assigned by the teacher. Re-reading also allowed the additional practice in fluency building required by this group of students.

The remaining four groups were not asked to re-read any portion of the assigned text; instead they were allowed to read ahead independently following group time. During the post-observation interview Ms. Smith explained that the students were placed in books appropriate for independent reading; they could read and understand the text without intervention. Small group instruction was a time to deepen the meaning of the text and to practice the strategies taught during whole group lessons. However, Ms. Smith did mention that this was not the case in the beginning of the school year. The students needed much more support in the fall; as a result small group lessons were much more guided, and the post-reading assignments were as well. It was common practice to assign most of the groups to re-read a text following a lesson at the beginning of the school year.

Two groups were required to respond to the assigned text by writing in a journal during the observation period. A prompt was provided in order to focus the nature of the response. For example, Ms. Smith asked one group to describe the nature of one main character's changes throughout the book they had read. A different group was asked to compare and contrast two characters from their assigned book. Not all groups were observed writing a response to their

reading; however, Ms. Smith later explained that all groups did frequently participate in this activity over the course of the school year.

In the post-observation interview Ms. Smith explained that the nature of the post-reading assignments changed over the course of the year. Therefore, if two groups read the same text at different times in the school year, the post-reading assignment would likely change, based on the knowledge and development of each group. Even so, the post-reading assignments were always authentic activities designed by the teacher to extend learning from previously taught lessons; skill based worksheets were not used with any of the groups. This was in contrast to Allington's (1983) finding, where the struggling readers were often drilled on skills using low-level worksheets. Instead, Ms. Smith focused on higher-level thinking skills during small group instruction and in the post-reading assignments.

4.3.5 Assessment

Ms. Smith conducted several classroom based on-going reading assessments during the observation period. Assessments used in small group instruction were the focus of this study; however, she did not limit her reading assessments to these lessons. Instead, a variety of assessment tools were used at different times during the reading block. Table 11 illustrates the different assessment tools used with each small group.

Table 11. Assessment tools

Group Number	Class Rank	Reading Level	Assessments During Instruction
1	Highest	Q (Grade 4)	<ul style="list-style-type: none">• Anecdotal Records
2	Highest	Q (Grade 4)	<ul style="list-style-type: none">• Anecdotal Records• Running Records• Fluency Screening
3	Average	N (Grade 3)	<ul style="list-style-type: none">• Anecdotal records• Running Records
4	2 nd Lowest	M (End of Grade 2)	<ul style="list-style-type: none">• Anecdotal records
5	Lowest	L/M (End of Grade 2)	<ul style="list-style-type: none">• Anecdotal Records• Running Records

Anecdotal records were kept during each observed small group lesson. Ms. Smith recorded observations of students reading strategies and difficulties on computer labels. At the end of each lesson the computer labels were moved to each child's reading file. When a child neglected to apply a strategy that was previously taught, Ms. Smith noted this on the anecdotal record. The strategy was re-taught to the student either during the small group lesson or in an

individual reading conference. Ms. Smith referred to these records to follow up with further assessment and instruction as needed.

Teacher observations were focused by a comprehension strategy rubric (Appendix K) designed to assess the depth of student application of strategies during the book talk discussions. Ms. Smith kept the rubric on the table for her own reference during each group meeting. Again, if a student neglected to apply a particular strategy, it was noted; in addition, if a student excelled in a certain area, this was noted as well.

Comprehension discussions in two of the groups (Group 3 and Group 4) were centered on responses written in the student journals after the previous lesson. Ms. Smith kept the same type of anecdotal records on the computer labels for these oral responses. One child in Group 3 was hesitant to share her journal entry orally during the observed lesson. Ms. Smith read the entry later, and then recorded her observations regarding the student's comprehension level on the computer label. In the post-observation interview Ms. Smith revealed that English was the second language for this student. As a result, she is often hesitant to speak in front of the group; Ms. Smith made necessary accommodations in order to further the child's reading ability.

Ms. Smith also took running records of oral reading behavior with selected members in groups two, three, and five during the observed period. Ms. Smith recorded the reading behaviors as a check of reading accuracy. In addition, running records were analyzed to determine which cue sources were used and which cue sources were neglected by individual students. Students were grouped according to similar needs and reading levels with these running records.

The students selected for running record assessments in Group 2 (one of the highest ranked groups) were actually selected by another student, who was assigned the Literature Circle role of 'passage picker.' When asked in the post-observation interview how students were

selected in the other groups for running records, Ms. Smith explained that she tried to assess students as frequently as possible. She was able to take running records on individuals during the individual reading conferences, and used small group reading instruction as an additional time to gather the needed data. Ms. Smith also explained that she collected more running record data with the struggling readers (Group 5) than with the other class members. She attempted to take running records weekly with each member of this group. Finally, Ms. Smith explained that the frequency of these assessments changed over the course of the school year. She recorded oral reading more frequently with all of her students in the beginning of the school year, when their reading levels were not as advanced.

A Reading Fluency Rubric (Appendix L) was used to guide Ms. Smith's observations of one student's reading in Group 2. When asked about this assessment tool in the post-observation interview, Ms. Smith explained that she attempted to assess each child's reading fluency on a quarterly basis, and this student had not yet been assessed. She further explained that she and a team of teachers created the rubric while she was working in a different school district.

During the post-observation interview Ms. Smith also described the importance of ongoing informal observations to informed teaching. She stated,

My anecdotal records are what help me a great deal. Because I just jot down notes all the time, my little white computer labels are all over the place. Because it may be in a science lesson that I notice something with reading, so I write it down and it helps me keep everything organized.

She went on to explain the importance of the more formalized reading assessments that she used: "Even running records... We as a school district set up where they should be at three different points during the year. So I am really concerned when kids aren't at those points. And that [on-

going data collection] helps.” Ms. Smith was referring to the district’s benchmark reading level assessments; students who are not reading at the required level at three points during the school year receive additional reading instruction.

4.3.6 Teacher talk

The amount of teacher talk versus student talk varied across the groups. The amount of teacher talk was calculated by dividing the number of teacher speech lines transcribed for each group’s lesson by the total number of speech lines transcribed.. The amount of student talk was calculated by dividing the number of total speech lines transcribed by the number of student speech lines transcribed per lesson. There were two taped and transcribed lessons for Group 5; the total number of transcribed lines was added together for this group. Table 12 provides the percentages of teacher versus student talk for each group. Lines where teachers and students talked simultaneously were not coded for this category; thus the calculated percentages do not always equal one-hundred.

Table 12. Amount of teacher versus student talk

Group Number	Class Rank	Reading Level	Teacher Talk	Student Talk
1	Highest	Q (Grade 4)	60%	38%
2	Highest	Q (Grade 4)	52%	48%
3	Average	N	48%	47%

		(Grade 3)		
4	2 nd Lowest	M (End of Grade 2)	53%	46%
5	Lowest	L/M (End of Grade 2)	60%	37%

The conversation was mainly balanced between Ms. Smith and her students in three of the five groups. However, Ms. Smith did more of the talking in one high group and in the lowest ranked group. Analysis of the types of teacher talk was required to ascertain why this was so.

Ms. Smith provided differentiated amounts and types of scaffolding through her conversations with her students during small group reading instruction. Verbal modeling, explanations, invitations, verification, and clarification were used to provide support to students who required additional help for problem solving while reading or discussing a text. Each type of assistance was coded on the lesson transcripts. There were also occasions when Ms. Smith provided the students with answers or words when they could not do this on their own; this was coded as telling.

Table 13 illustrates the percentage of each type of scaffolding used in Ms. Smith's small group lessons. Each percentage was calculated by dividing the number of lines coded for each type of scaffolding in each group by the total number of lines coded for teacher talk. Group 5 participated in two observed lessons during the study; the number of transcribed lines from both lessons was added together to calculate each percentage.

Table 13. Different types of verbal scaffolding

Group	Reading Level	Direct Explanation	Explicit Modeling	Invitations to Participate	Clarification	Verification	Telling
1	Q (Grade 4)	13%	13%	33%	10%	11%	-
2	Q (Grade 4)	16%	10%	21%	20%	23%	-
3	N (Grade 3)	13%	12%	17%	24%	21%	1%
4	M (End of Grade 2)	19%	6%	21%	12%	14%	-
5	L/M (End of Grade 2)	29%	5%	19%	25%	13%	6%

The following is a description of the codes (adapted from Roehler & Cantlon, 1997) used to categorize the different types of verbal scaffolds used by Ms. Smith during the observation period:

Direct explanation. This type of scaffolding was defined as using explicit statements designed to assist students in understanding a concept, when to apply a strategy, or how a strategy is used. Re-explanations of previously taught strategies or concepts were coded this way

as well. This type of scaffold was the predominate type of teacher talk coded in the observed lessons of the lowest ranked group.

Ms. Smith used direct explanation in the previously cited lesson to help the lowest ranked group decode unknown words with the c-h combination in them. As the lesson continued, Ms. Smith used this type of talk to explain how to use the known word (machine) to decode an unknown word (chauffer):

S: Choffer?

T: The chauffer! Yeah! Show-fer. Take a look at that. Usually when we think of the word 'show', don't we think s-h-o-w?

S: (Unintelligible)

T: Right, and that doesn't look at all like...exactly! So we know and we've talked about a lot of different words that have sounds in it that don't match how the letters look. And you've got to keep track of that. And 'machine' is just one of those words. When you see the 'ch' and you start out with 'match' and it doesn't make sense, you have to think, what else can I do to change that word? What else can I do to make it make sense? In (student's name) case, which is page four: 'He also loved machines.' And then it said 'Once he bought a movie camera.' So you need to think, what is a movie camera?

S: It's...

T: What is it an example of...exactly. But if you don't know that word, you can go back and think about 'machine'. Exactly. So you have to be careful because that's an important word in this story. It comes up more than one time. And I noticed yesterday when we read, a lot of you didn't get that word but you kept going. And that...And I noticed I stopped (student's name) because he didn't get that word but he had kept going and that

changed his understanding of the story. So sometimes, you have to stop and reread and you have to remember to get help.

Ms. Smith explained how to use analogous thinking, moving from the known to the unknown, in previous word-solving lessons. She then re-explained this known strategy, within the context of this lesson, to help the readers make sense of the text. It was through this re-explanation that Ms. Smith attempted to teach this group to integrate strategies in their reading. Such meaning driven prompts were commonly used by Ms. Smith throughout the course of the observation.

Another example of direct explanation was taken from a lesson with Group 1, one of the highest ranked in the class:

S: The prize in *Stone Fox* was less than how much money you need to even like have enough money to enter.

T: And we know that in fiction books don't we? That when you write fiction...even think about the fiction stories that you write in Writing Workshop. You can stretch things and make things not totally accurate right? You just have to keep that in mind when you're reading a fiction story...that's why I pulled out the *Iditarod* for you to read after *Stone Fox*, because I didn't want you to think that *Stone Fox* was really how dog races are.

Ms. Smith used the direct explanation to illustrate one difference between fiction and non-fiction stories, using texts written on the same topic; this was a requirement of the district's curriculum.

Explicit modeling. Ms. Smith used this type of verbal assistance to demonstrate how to “work through” a strategy through verbal example. This included think-alouds demonstrating reasons for strategy selection, specifying steps, or providing clues. Talk-alouds, such as modeled questioning or commenting, were also considered under this code. This type of scaffolding was observed less frequently in the lower ranked groups than in the higher groups. Again, direct

explanation was favored in these lower groups. Ms. Smith did not use a great deal of explicit modeling in the observed small group lessons (see Table 13). Perhaps this is because she provided a great deal of explicit modeling of new strategies in the whole-class lessons.

Explicit modeling was employed by Ms. Smith as she modeled how to make personal connections with text with the average-ranked reading group:

T: Sometimes when you're really sad...don't people...sometimes people don't know how to act and sometimes when they're really sad...they act mean or they act angry just because they don't know what to do.

S: And they don't listen to each other. The mom may say something else, then take it back, like how they got married...

T: Do you know what I remember (Student's name)? I remember when your grandpa passed away this year and you were really sad when you came to school. But then I remember something happened and you were angry with somebody, but it really wasn't that you were angry with somebody, it was really just that you were sad and they kind of got you on a bad day.

S: I remember that but I don't know what it was about.

T: I don't remember what it was about either, but I just remember saying 'I bet you're really not mad.' And we talked about how it was kind of like you're sad and you don't know how to deal with those feelings. That's hard and she's [the book's main character] in fourth grade and that would be really sad. And I know when we started the book, we talked about what it would be like, because nobody here has parents that are divorced.

Ms. Smith modeled linking a child's personal experience to the life of the main character in the assigned text. The strategy of using personal connections to comprehend text was taught in

previous lessons; however, modeling this strategy with another book was required for this group so they could apply it to their own reading.

Invitations to participate. The third type of scaffolding through talk that was coded included instances when the teacher encouraged student participation by eliciting students' reasoning or encouraging elaboration on a response. For example, when the teacher asked a student to clarify his/her thinking or provide evidence from the text for an incomplete answer, it was coded as an invitation to participate. This sort of talk was often used to keep the conversation focused during the instruction, or to ensure that all group members were participating.

Ms. Smith invited discussion participation in a variety of ways. At times, she simply posed a question to begin the discussion and assess student knowledge, as exemplified in the following excerpt from the lowest-ranked group's lesson:

T: So just by looking at this and by the cover, what genre are we guessing?

S: Non-fiction?

T: It's going be non-fiction, right. And what do we have when we have a book about a person; do we remember what that's called?

As Ms. Smith introduced the new text to the group, she invited the students to demonstrate what they knew about the genre. This conversation in turn helped her scaffold the students' reading of the next book. Ms. Smith also frequently asked her students to provide evidence from the text to support an answer. She explained that this was a requirement in the school's third grade writing curriculum, so she attempted to prepare her students by expecting them to do this verbally in class. This type of invitation is illustrated by the following excerpt from a lesson with the one of the highest ranked groups:

T: How do you know that Wilbur and Charlotte are good friends?

S: Because they help each other?

T: They help each other. Give me an example.

S: They're nice to each other.

T: They're nice to each other. Give me an example of when they help each other.

S: Well, Charlotte helps him by getting ... making him chin up and making him happier that Charlotte can fix it and he won't die.

Ms. Smith encouraged continued participation in the discussion by asking the student to provide evidence to back up her answer. Invitation to Participate was the predominant form of teacher talk in the other highest ranked group (Group 1) in the class. It was also the most observed (by a slight margin) form of teacher talk with Group 4, who received an almost equal amount of direct explanation.

Clarification. When the students demonstrated a misunderstanding of information or the use of a particular strategy, Ms. Smith cleared these up through guided discussion and/or questioning. This type of verbal scaffold was coded as clarification. Questioning was used to help the students in the lowest ranked group (Group 5) gain a deeper understanding of the assigned text:

T: What made her [the main character] change?

S: Because she thought about it, and she wanted to write about a boy, a sad boy, and a wild horse...

T: She gets her horse story going, doesn't she?

S: Yeah

T: Does her aunt just let her run and write down her story?

Students (in unison): No.

S: You have to think a lot about it.

T: Yeah, her aunt...

S: It takes time...

S: It is really hard to make up a story.

T: Why doesn't her aunt let her get her ideas down on paper though?

S: Because you have to do all the work first.

T: Why ? Why does her aunt...

S: You have to think, about what you are going to write about.

S: Because you could just write something...whoopie do dah something...

T: It's kind of like what [I] tell you in Writing Workshop, isn't it? You have to sketch your ideas, brainstorm your ideas, get them down, get them down before you jump into writing that story. You have to do that, don't you? And I like how her aunt keeps her busy. That was a great and very important part, (student name) that you pointed out.

Ms. Smith clarified the students' understanding of the character's motivation through guided questioning; she led them to connect their personal experiences with writing to the text, which led to deeper comprehension.

Clarification was the second most observed type of teacher talk in the lowest rank group, and was the predominant form of teacher talk in the average-ranked reading group in Ms. Smith's class.

Verification. Affirmation was provided when Ms. Smith confirmed relevance of a correct student response, which often led to further discussion. This type of scaffolding was coded as verification. This type of teacher talk was coded most frequently in one of the highest ranked

groups, as well as in the average ranked group in Ms. Smith's classroom. Ms. Smith asked the students in Group 1 to provide the main idea for a chapter they had read. Verification was used several times in this excerpt from that lesson:

S: You need a lot of equipment to enter a dog sled race.

T: I like how you put that right into one sentence. You took that-there's a lot of different equipment. Good job.

S: The main idea is about finding gold in 1898. The main idea is about taking supplies to Nome.

T: Ok. So you realized you had two different main ideas going in your chapter and you focused in on both of them. Good.

The teacher used verification as she restated and validated the student response. This served partly to praise a correct response, and partly to re-teach the concept for others in the group.

Telling. The final category for teacher talk in the observed lessons was coded as telling; the teacher provided students with the answer to allow the discussion or reading to continue. Ms. Smith provided very few answers across all of the groups. However, she did provide some answers to the lowest ranked group, in order to prevent the complete breakdown of the reading process. Still, only 6 percent of the teacher talk was coded as telling for this group.

When asked, Ms. Smith explained that she did not consciously plan to talk differently to the different groups, she was simply responding to the needs of the group members. She provided necessary assistance for the students to problem-solve at the point of confusion or deepen thinking during discussion. As a result, two groups reading books at the same instructional reading level received two very different lessons. For example, both Group 3 and Group 4 participated in lessons using chapter books at the 2nd grade level. However, the nature of

the teacher's instructional talk was different in these groups. It was interesting that the two highest rank groups were placed in different level texts for the observed instruction; this may have led to the different amounts and types of scaffolding coded.

4.4 SUMMARY

Through a description of Ms. Smith's small group reading instruction, the guiding questions of this study were addressed. The first question addressed **the decisions the teacher made before, during, and after the small group lessons. What data did the teacher use to differentiate instruction?** Ms. Smith explained that initial group placements were arrived at by analyzing benchmark data collected, which included reading performance on word lists and continuous text, oral retellings of the stories read. Classroom observations and interview data provided evidence of Ms. Smith's on-going use of classroom based assessments. She used running records of oral reading behavior throughout the school year to make decisions regarding grouping and teaching points prior to small group instruction. Lesson foci were planned based on Ms. Smith's knowledge of the students' reading ability as evidenced through the running records, informal reading conference conversations, written responses, as well as student interest and school district curricular requirements. Ms. Smith used the conversations that took place during the small group lessons as further assessment that informed the direction of her teaching as the lesson took place. Finally, through her reflection and the products resulting from post-reading assignments, Ms. Smith was able to plan for her next teaching points with each group.

The second question driving this study was **what lesson components are constant across the groups? What components are changed to suit the needs of the group?** Two

constant components seemed to be the small group size (either four or five members per group) and the presence of Ms. Smith as leader of each group. As leader, Ms. Smith controlled the instructional focus in each group meeting. Everything else seemed dependent upon the group members: the time length and frequency of meetings; materials used; lesson structure and focus; post reading assignments; and the amount and type of teacher talk all varied across group lessons.

The final question asked prior to the study addressed **how time was used and managed in differentiated reading instruction**. Ms. Smith began each day with a block of time devoted to literacy. This block consisted of whole class lessons, small group instruction, and individual reading instruction, all of which were previously described in this chapter. Differentiated instruction occurred during small group reading instruction and during individual reading conferences. Approximately 40 minutes per day was devoted to small group teaching and literacy center activities. Expert classroom management was essential to this small group teaching. Ms. Smith assigned several literacy extension tasks to be completed by her students each week. The students worked either independently or with small groups of students to complete these tasks. Ms. Smith's small group lessons were only interrupted on rare occasions by a student signaling to leave the room to use the bathroom. Not one child interrupted a lesson to get clarification on a task, tattle on a peer, or seek additional help of any kind. The students were independent problem-solvers, and remained actively engaged in the tasks the teacher had planned for them.

5.0 CONCLUSION

In this chapter findings are summarized and conclusions are drawn from the data analysis. A discussion of the issues related to this study and possible implications for instruction follows. Finally recommendations for future research are made.

5.1 FINDINGS

1. Differentiation occurred for each reading group in the following ways: materials, time spent in small group meetings, lesson structure and focus, teacher talk, and post-reading assignments.
2. There was variability in the amount of time that the teacher spent with the groups. The teacher acknowledged the needs of the lowest ranked readers in the class by meeting with them three times over the observation period; all other groups met with the teacher once during this period.
3. Informal assessment was used frequently in decision-making regarding grouping arrangements and lesson planning. The teacher relied a great deal on running records, anecdotal records, and student conferences to guide her grouping decisions. Group membership changed over the course of the school year, based on the needs, strengths, and

interests of the students. For example, if a student's progress accelerated past the other group members, the student was placed in a different group. Similarly, if one student struggled with strategies being taught to the small group, he or she was moved to a group with similar needs.

4. The teacher did not use a published core reading program for reading instruction; the district's core curriculum provided a scope and sequence of skills and strategies. This, along with ongoing student assessment, informed the teaching decisions. The participant used her knowledge of each student's reading strengths and weaknesses, along with her deep knowledge of reading development, to craft lessons that would accelerate the learning of each student. All of the students in the classroom read at or above grade level when the school year ended.

5. The teacher matched reading materials used in small groups to the students' instructional reading level, as determined by running records of oral reading behavior. Lessons were tailored to fit the needs of the members of the group; materials were carefully selected to support the teaching in these lessons. Ms. Smith did assign a text below the instructional reading level for one group (Group 1). The purpose of this mis-match was to illustrate a specific teaching point, the difference between two genres. The teacher was able to provide a rationale for her choice of material.

6. The amount of time devoted to each small group lesson was based on student response in the lesson conversation. The teacher directed the instructional foci of each lesson; however, authentic response to student questions and response drove the conversation.

7. The major focus of the small group instruction was comprehension. The teacher and the students in the classroom referred to all small group reading sessions as "Book Talks." Still,

Ms. Smith differentiated the structure of each small group lesson to meet the varying abilities of the students in each group. She provided the most support to the lowest-ranked group in the class through a traditional *Guided Reading* (Fountas & Pinnell, 1996) lesson. One group was scaffolded into literary discussions through a classic *Literature Circle* (Daniels, 2001) model. The three remaining groups engaged in literary conversations through a *Book Club* (McMahon & Raphael, 1997) model. Comprehension strategies were taught explicitly during the whole group lessons; implicit instruction and guided practice of the strategies was provided during the small group lessons.

8. The specific focus of each small group lesson varied based on the needs of the group members and/or the demands of the text. Ms. Smith implemented lessons focused on both comprehension and decoding skills with the lowest-ranked group. The remaining groups were engaged in lessons focused on comprehension, though the specific comprehension strategies varied across these groups.

9. The amount of teacher talk did not vary a great deal across the groups. The amount of talk used by Ms. Smith was either balanced or slightly higher than the students talk during the lessons.

10. The nature of the verbal scaffolding varied across the groups. The types and amounts of scaffolding were not necessarily related to level of text used for instructional purposes. Instead, Ms. Smith differentiated the amount of verbal support she provided for students in response to their conversations. This responsive teaching was a hallmark of Ms. Smith's instruction.

11. Post-reading assignments were differentiated to match student ability, extend the lesson's teaching point, and apply to the text used for the lesson. The members of the lowest ranked

group were often required to re-read text for fluency practice and comprehension reinforcement. The other groups engaged in activities to extend and enrich their application of strategies taught during whole group and small group lessons.

5.2 DISCUSSION

On the basis of these findings, it is reasonable to conclude that, for this teacher, small group differentiated reading instruction was a complex process that requires responsive and skilled teaching. The teacher in this study was identified as exemplary; this study provides insight into what one expert teacher did with differentiated reading instruction. It is clear that this exemplary teacher made a number of well-planned decisions before, during, and after teaching reading to small groups of students.

Data were used extensively in making decisions regarding instructional grouping. Classroom teachers must make decisions about how to divide the class into smaller groups; this is needed in order to teach the students within their zone of proximal development. Assessment data must be collected and analyzed in order to have students grouped within this range of development. The exemplary teacher in this study used classroom based assessments throughout the school year to inform her grouping decisions. This assessment-based decision-making was congruent with previous studies of exemplary literacy practices (Wharton-McDonald et al, 1998; Pressley et al, 1998; Morrow et al., 1999; Pressley et al, 2001; Taylor, et al., 2002a).

Because the reading groups were homogenous, the participating teacher was able to address the instructional needs of individual students within the small group setting. When a child's reading ability was accelerated, s/he was moved into a group that best matched that

ability, so that the teacher could continue to teach at the zone of proximal development. Similarly, if a child was unable to progress at approximately the same pace as his/her group members, the child was moved into a group with similar needs. This fluidity allowed the teacher to guide the reading development of her students at the appropriate level. When a large number of students (more than six) were reading at the same instructional level, the participating teacher divided the group according to topic interest. For example, the two highest groups in the classroom read texts at the same level, but were involved in reading different selections.

Instructional materials were carefully selected to scaffold student learning. Group membership was one important factor in lesson planning; the teacher tailored lessons to suit the needs, abilities, and interests of the learners. Materials played an important role in lesson planning as well. The reading materials were viewed as an instructional scaffold, selected to allow the children to practice reading skills and strategies within the zone of proximal development. According to the teacher, books were used that offered just the right amount of reading difficulty, so that children were required to use newly introduced skills and strategies; however, the assigned text was never so hard that students were frustrated in their attempts to apply new skills and strategies.

Since the students in this classroom varied in reading ability, it was necessary for the teacher to select different materials for each group. In addition, the students had varied learning styles and interests. Because of this a commercially published program with a prescribed scope and sequence was not the only material used. Instead, the teacher matched the assigned reading materials to the instructional level of her students in order to teach the needed lesson to each group. Flexibility in decision-making proved to be essential here. There were times throughout the year when the teacher selected a book below the group's instructional reading level. This was

important for a variety of reasons, such as when a group was learning to apply a particularly hard strategy, being introduced to a new genre, or making comparisons across texts.

The amount of time devoted to each group changed over the course of the year, and varied across groups. Again, it was the needs and abilities of her students that led the teacher conclude what was necessary. Working within a time frame of one hour and fifty minutes, the teacher took the time necessary to have meaningful conversations about books while modeling, explaining, and revisiting essential skills and strategies. Struggling students required more time to grapple with the information in texts, and more time to review and practice strategies taught. Accelerated groups required more time to read independently and to formulate reactions. As a result, the teacher held meetings more frequently with struggling readers than with the others in the class.

The length of the group meetings changed over the course of the school year as the abilities and attention spans of the students progressed. Early in the year the teacher conducted simple lessons focused on one or two teaching points. As the students became fluent, independent readers, the lesson focus shifted to the integration of multiple strategies, similar to the change over time found in Pressley et al.'s study of comprehension strategies instruction (1992). As a result of the shift in lesson focus, conversations were lengthened. In order to stay within the time reserved for this literacy block, the number of small group lessons taught each day decreased. Therefore, the students received fewer, but longer, small group lessons each week by the year's end. Each group met with the teacher once per week for about twenty-five minutes, with the exception of the lowest-ranked reading group. Meetings with this group were observed twice during the research period. Again, such decisions were made by analyzing

classroom-based assessments and reflecting upon conversations with students. The students' needs and abilities informed the teacher's decision-making.

The changing foci and structure of group lessons required careful analysis and decision-making on the part of the teacher. Many of the students were beginning readers as they started the school year. As a result, the teacher offered a great deal of support and guidance during the small group lessons. This support was gradually removed as the students gained competency in reading. The carefully guided and structured lessons gave way to more open conversations. Rather than focusing on one or two skills or strategies needed for developing reading ability, the lessons became focused on integrating strategies to deepen comprehension. This was not a prescribed scope and sequence; instead, the teacher was responsive to the needs and abilities of the students. She was able to make judgments regarding what to teach and how to teach the content, based on the needs of the learner and her deep knowledge of the reading process

The needs of the children created changes in the way the teacher interacted with group members. The questioning and prompting provided by the teacher during small group instruction served as verbal scaffolding for the students' reading development. Through conversations, the teacher provided the amount and type of scaffolding needed for each member of the group; this kept the students working in what Vygotsky (1978) defined as the zone of proximal development. This could only be achieved by in-the-moment teaching in response to student attempts and reactions to the text. It has been demonstrated that such guidance can increase student reading achievement (Rodgers, 2004).

Follow-up assignments were adapted to the needs and abilities of the group members. The teacher reflected on her knowledge of the students' abilities, areas that required additional practice, and the type of text used for instruction as she planned a post-reading assignment for

the group. The nature of these assignments changed over the course of the year. The participating teacher attempted to create meaningful opportunities for applying and extending known strategies to the assigned text.

5.3 IMPLICATIONS

5.3.1 Responsive teaching

The implications of this study are clear. Within any classroom student abilities vary from year to year. Teachers cannot effectively teach in each student's zone of proximal development by teaching the same content, in the same sequence, with the same pacing, to all children. The learners are simply too diverse. The decision-making required for such extensive differentiated reading instruction requires a great deal of teacher knowledge and experience. Classroom teachers must be reflective, responsive, and well prepared (Allington & Walmsley, 1995; Taylor et al., 2002a; McGill-Franzen, et al., 2006).

Expert teachers can provide explicit instruction based on the needs of individuals, without a lock step prescribed scope and sequence. The participant of this study followed the scope and sequence of the district curriculum; still, she was able to quickly shift plans to respond to instructional needs of her varied group of students. Classroom-based assessments informed such decisions. If a child had not mastered a skill or strategy, a new technique was used to re-teach the skill or strategy. If a child demonstrated mastery of a skill or strategy, the teacher moved the child to the next skill or strategy. This responsive teaching was evident in previous

studies of exemplary literacy instruction (Pressley, Rankin, & Yokoi, 1996; Pressley et al., 1998; Taylor et al., 2002a).

Unfortunately, not all teachers are experts; there exists a varying degree of knowledge, experience and commitment in the field. Perhaps as a result of this variability, along with the desire to raise teacher accountability, a call for the adoption of a core curriculum to guide teachers in their literacy instruction has been issued. There are scholars in the field who believe that teachers are ill prepared to make important decisions regarding student literacy development (Moats, 1999; Al Otaiba, Kosanovich-Grek, Torgesen, Hassler, & Wahl, 2005). Some experts believe that such core programs could help teachers avoid neglecting essential skills and strategies in their instruction (Al Otaiba et al., 2005; Anderson, 2006). Further, these scholars may argue that all students need explicit teaching of a predetermined sequence of skills, regardless of student ability (Moats, 1999; Al Otaiba et al, 2005). In this line of thinking, responsive teaching is not exemplary teaching, because it is deemed unintentional.

Still, in this case study, the responsive teaching of the participant was successful; all of the children were reading at or above grade level by the end of the school year. Although the participant did not adhere to a predetermined sequence of skills, she did teach the strategies and skills required by the district curriculum. This exemplary teacher did not use a core reading program to provide the lesson focus; instead she used it as one source of instructional material in the classroom. Instead of relying on a published program to inform her teaching decisions, the exemplary teacher in this study relied on her knowledge of the reading process, the district curriculum, and on-going classroom based assessments to make such important decisions.

5.3.2 Teacher education

Novice teachers may not be equipped to make responsive decisions based on the needs of individuals. Experience working with children, practicing responsive teaching, may be required. Perhaps teacher preparation programs at the university level could build such opportunities into their programs.

Teacher knowledge and experience cannot be developed quickly. Experts are developed over time. Support for novice teachers must be provided through on-going professional development. Classroom-based support (e.g. coaching) may offer teachers the opportunity to learn through authentic practice what is needed to effectively shift student learning. Through this practice, teachers can develop into responsive practitioners who can diagnose student need and respond accordingly.

5.4 RECOMMENDATIONS FOR FUTURE RESEARCH

- Given that this study involved a single subject, there is a need for additional case studies of small group reading instruction in other exemplary teacher's classrooms. Other exemplary teachers may tailor lesson components differently. Instruction in a variety of grade levels should be studied and described to add to the knowledge base on effective reading instruction. Comparisons could be made across cases.
- Long-term observational studies are required to fully document exemplary teaching practices over the course of a school year and beyond. The exploration of one teacher's

instruction over the course of several years would give insight into responsive teaching based on the needs of different learners.

- Upon completion of further descriptive studies, a list of common characteristics of exemplary small group reading instruction could be defined. Experimental studies should be conducted testing the impact of each characteristic.
- A comparison of exemplary teachers' instructional practices with typical teachers' instructional practices in literacy would be an important follow-up study. An exploration of teacher's beliefs and practices with both groups of teachers may provide insight that could be used in professional development models.

5.5 LIMITATIONS OF THE STUDY

The following discussion details the limitations of this case study:

The teacher participant in the study was informed about the purpose of the study. Since she was aware that the focus of the study was to document differentiated reading instruction, she could have attempted to provide more differentiated instruction during the observed lessons than she conducted on a normal day of instruction. However, the confirmation observation that was conducted was an unplanned observation. Further, lesson plans collected from different points in the school year revealed evidence of differentiated materials, lesson foci, and lesson structures.

The five observations analyzed in this study were conducted over a two-week period. Interview data were used to explore information regarding changes in instruction over the course of the school year. The case would have been strengthened if observations had been conducted at

three points during the school year: fall, winter, and spring. This would have provided a more accurate and detailed description of instruction than teacher recollection of previous lessons.

The timing of the study was an additional limitation. This study was conducted in late spring, the end of the school year in the participating district. As a result, all of the students were at or above grade level. A comparison of the instructional techniques employed at the beginning of the year with the techniques used at the end of the year would have provided additional valuable information regarding how the teacher worked with struggling readers. Another limitation of the study's timing was the number of interruptions to the school day. As a result of extra end-of-the-year activities, access to the classroom was limited.

This case study was limited to one participant. It is possible that exemplary teachers of literacy differentiate their lessons in different ways. A description and comparison of many expert reading teachers would strengthen the findings. In addition, this study was limited to one classroom in a mostly Caucasian, rural school district. This study should be replicated in other regions with more diverse student populations.

APPENDIX A

CRITERIA FOR EXEMPLARY TEACHER

An exemplary teacher of literacy frequently demonstrates the following characteristics:

- Utilizes a variety of grouping formats when teaching reading and writing (e.g. whole group, small group, pairs, individual)
- Spends more time teaching reading lessons in small group format than whole group format
- Differentiates instruction based on assessment results
- Models instruction in literacy related skills and strategies
- Scaffolds instruction to meet the needs of individual learners
- Engages students in higher level thinking skills during literacy discussions
- Expects students to respond to instruction actively (e.g. reading, writing, manipulating, discussing)
- Provides students with opportunities to read a variety of books
- Has high expectations for student achievement
- Attains high levels of student engagement in instruction

(Pressley et al., 1996; Pressley et al., 1998; Wharton-McDonald et al., 1998; Taylor et al., 2000; Taylor et al., 2002a; Taylor et al., 2002b).

APPENDIX B

TEACHER NOMINATION FORM

Please nominate one teacher in each grade (Grades 2-4) who consistently demonstrates the following characteristics:

- Utilizes a variety of grouping formats when teaching reading and writing (e.g. whole group, small group, pairs, individual)
- Spends more time teaching reading lessons in small group format than whole group format
- Differentiates instruction based on assessment results
- Models instruction in literacy related skills and strategies
- Scaffolds instruction to meet the needs of individual learners
- Engages students in higher level thinking skills during literacy discussions
- Expects students to respond to instruction actively (e.g. reading, writing, manipulating, discussing)
- Provides students with opportunities to read a variety of books
- Has high expectations for student achievement
- Attains high levels of student engagement in instruction

Nominees:

Grade 2: _____

Grade 3: _____

Grade 4: _____

APPENDIX C

CONFIRMATION OBSERVATION

Confirmation Observation

Selected Exemplary Teacher

Ms. Smith (Pseudonym), Grade 2

March 29, 2006

C.1.1 Narrative Notes for Observation Scheme

Segment 1 9:25-9:30

Teacher is instructing whole class at the easel. Children are sitting on the floor. The activity is called “Wacky Wednesday.” The teacher has written an informational story about today’s eclipse on chart paper, which is posted on the easel. The story contains many homophone pairs, such as you/ewe, hour/our.

Students gather on the floor, all silently read the text on the chart. One child is selected to read the story aloud to the rest of the group; teacher models the “wacky” way as a reminder. Student begins to read, “March is over so/sew quickly” (reading both homophones. Other students follow along.

Teacher provides feedback, and elicits strategy use, “what did Craig do that good readers do?” Students respond, “he used good inflection. He slowed down when it was tricky” etc. Teacher elicits elaboration, “ how did he help himself? How did he check for meaning?”

23/24 on task

c/w/r r/i, b/l, m, ra/r r/i, b/l/r-tt cs/i, b/r, c/or, or-t, l

Segment 2 9:30-9:35

T: “What kind of words are these wacky words? What kind are they?”

S: “Homophones”

T: “What does that mean?”

S: Provides definition

T: Reads full text, pausing to elicit correct choice for each set of homophones. Models use of 1 or 2 fingers for students to signal correct choice. Elaborates each student response to gain definition of word. Also has children act out some of the words, “show me with your hands what this word *sew* looks like” (points to word). Children pretend to sew with needle and thread. Teacher highlights correct homophone in text with yellow highlighter tape.

A contraction comes up in the sentences. Teacher asks what a contraction is; student tries to explain, but misses meaning. Teacher continues to clarify this and other vocabulary words in context of story.

One student raises a question. “My mom told me the time is going to change, does that have anything to do with this eclipse?” Teacher answers it does not, but good that she is trying to connect this story to her life.

Teacher asks questions regarding content of passage for clarification and comprehension check; encourages responses based on children's prior knowledge.

24/24 on task

c/w/r v/i, b/m, c/m, l, r r/ i, b/ra/ l, r m3/ i, b/ra/m, l, or-t

Segment 3 9:35-9:40

Teacher praises the children for knowing the homophones so well. One student commented that something in the passage "didn't make sense." Teacher begins to describe information taught when the student was absent, asks another student to explain what they had learned from another story read in class.

Second student explain the information from the other story, fiction, but the plot relates to the topic (eclipse). Several other students jump in to help summarize the story. Teacher helps with elaboration, and asks questions to aid in the discussion. Teacher explains that this is what good readers do when they are trying to make sense of a text, they connect the information to other text they've read.

Teacher explains that the solar eclipse is going to happen on other side of world today, discusses content of passage with students. Then teacher asks, "what kind of text is this, since I gave you a lot of true information in the text?"

Student responds, "informational text."

Teacher praises students, then asks about the pictures she drew in the chart story. "What are pictures called in informational text?" Students respond chorally, "diagram."

23/34 on task

c/w/r cs/ i, b/t, c/ l, or-t m3/ i, b/t, r, c/l, or cs/ i, b/r, c/or-t v/ i, b/r, c/or, or-t

(informational text)

Segment 4 9:41-9:46

Two students selected to act out (model) rotation of earth-moon-sun during an eclipse, with the teacher.

Students ask questions regarding the content of the story presented and clarify definitions of unknown words. Context of story, as well as different examples are provided by teacher or selected students to clarify.

Teacher explains (and models) how she found the information that she used for the story. She discussed researching the topic in informational books found in the room. Teacher holds up one book and asks, “how do you think I found information about an eclipse in this book?”

One student responds, “looked at the cover, looked at the table of contents.”

Teacher elaborates, “I did do that, but I was looking for one specific topic, eclipse. How would I find a specific topic in the book?”

Choral response: “the index!”

Teacher responds, “right!” Then models how to find the index and how to find the word eclipse, using several books in the pile.

Students in the class discuss the different types of eclipses, sharing the definitions.

24/24 on task

c/w/r cs/o/m/m, or-t, l

m3/o/m/m, l, or-t

cs/ i/r, m, c/or-t

visualizing v/ i/r, c/or-t

Segment 5 9:47-9:52

Children continue discussing the content of the chart story, the discussion is open as teacher elaborates key terms.

Teacher begins transition to “ticket work” (literacy centers). Teacher provides a few reminders of the tasks, students move independently to literacy centers.

24/24 on task

c/w/r v/ i, b/r, c/or-t O/NA/t/l (management)

Segment 6 9:54-10:00

Teacher instructs students to lower voices, “The Book Talk is about to begin.” She meets with 5 boys at a horseshoe shaped table, the other children are working independently or with a small group at literacy stations.

Small group is holding a literature circle with Stone Fox. Teacher begins discussion with, “what was the most interesting part that you’ve read since last time?”

One boy responds by summarizing a passage. Teacher asks why that was most interesting. The boy says it was “funny.” Teacher explains that that doesn’t really answer the question. Helps boy elaborate to fully answer the question.

Students and teacher discuss matching text to world, making connections. Teacher asks about the dog in the story, “what was his name? Wasn’t he mean? What does that tell you, what does that mean?”

Group discusses the term *protective*, how it was used in the story, what it means in other contexts.

Each child takes turn to describe most interesting part, and why. Teacher then asks, “what happened next? It is a key part, go back to your books and find it.” Students begin to read silently.

5/5 on task

c/s/r m3/n/r, c/or-t, or cs/n/r, c/ or m1/n/r, c/ or m3/n/r, c/ or-t
(what does that mean?” Inference)

m3/n/r,c/r r/n/l/r

Segment 7 10:01-10:06

A student was previously (prior meeting) appointed as discussion leader, he begins to ask questions about the story. Teacher elaborates his questions, as well as the responses of others. (Scaffolding/coaching).

Teacher asks students to predict the end result of the race. Boys unanimously agree that the main character will win the race. Teacher asks, “what do we know about books? Why kind of ending can we predict? What theme helps us know/predict that (the main character) will win? Students answer that they expect a happy ending.

Teacher models questioning as you read a text. Discuss meaning of story, how to predict based on text structure, what may happen.

Students share connections between their life and story (text-to-self). Teacher asks what the character had to do to ensure he would win the race. Then followed, “what type of things do you have to do to win a contest?” Students share their responses. Teacher explains that connecting in this way helps to understand what the character does and why; helps to understand the story better.

Teacher poses question: what if (main character) loses?

Students take turns discussing this possibility, but go back to “books usually have a happy ending,” and rule out the possibility of a loss.

5/5 on task

c/s/r cs/n/r, m, c/or m3/n/r, c/ or-t cs/n/r, c/or-t

Segment 8 10:07-10:12

A different student was given the task of “connector” for this literature circle. (Assignments were given at a previous meeting.) This student has opportunity to share connections made about the text.

Teacher listens, provide feedback, explains how connection helps with story comprehension.

A question came up from another member of the group. Teacher asks all students in group to go back to text to find the answer, to clarify “what was happening in the story.” All students read silently to clarify the passage.

One student shared a connection. Teacher provides feedback, “so you know exactly how the character feels when you read that in the book...” The teacher explained how this connection helped the child comprehend this part of the story.

The term *perseverance* is discussed. Teacher provides definition and example. Students provide different examples; teacher provides feedback and reads the word in the context of story.

A different child was assigned the role of “passage picker.” He reads a passage aloud, and provides the reason he chose it. Teacher takes a running record while the student reads!

Students discuss the meaning of the passage that was read, connecting it to their personal experiences.

5/5 on task

c/s/r cs/n/l, c/ r, or-t, l v/n/r, c/or r/n/l, a/r-tt m3/n/l/or-t

C.2.2 Observer’s Impressions

- This observation was not planned; the teacher invited me to “get it over with” when I explained a confirmation observation would be needed for the study. This is truly a typical day of instruction.
- The small group teaching continued as we left. I did not ask the teacher how many groups she planned to meet with that day.
- The environment could be described as literate:
 - Books all around the room, easily accessible to students
 - Variety of genres of books in room
 - Continuous text posted around the room
 - Original student writing, all content areas
 - Teacher-student communication
 - Class rules
 - Writing process
 - Self-selection of books process
 - Story structure terms
 - Science explanations
 - More than above examples
 - Words posted around the room
 - Class helpers
 - Word Wall
 - Interesting words for writing
 - Question Words
 - Daily schedule

- Literacy centers
- There was not one interruption (to the teacher) during the small group instruction.
Children worked independently in literacy centers, helping each other when needed.
Excellent classroom management and evidence of self-regulation.
- Boys in small group lesson begged to be allowed to read the book to the end. (Two more chapters were left.) Three of the five boys reminisced about “hating to read” at the beginning of second grade, but loving to read now.
- As I left the teacher was providing an assignment to the small group of boys, they were taking notes in a reading journal as teacher wrote assignment on the white board. (Self-regulation.)
- Positive climate; both teachers and students use please and thank you in conversations.
Lots of positive feedback from teacher to students.

APPENDIX D

STRUCTURED TEACHER INTERVIEW

We have been spending a great deal of time together. Let's talk a little bit about you and your experiences as a teacher.

1. Tell me about your educational background. What degrees and certifications do you hold?

I have a Bachelors of Science in Elementary Education from Indiana University of Pennsylvania. I have a Masters in Education from St. Francis University.

You were once a Title I teacher, do you have a Reading Specialist certification?

No.

2. How long have you been teaching?

Officially 10 and a half years.

How many of those years were spent at your current district?

Nine.

Your current school?

Nine

Your current grade level?

All nine at second grade in this district.

3. Tell me about literacy professional development opportunities that you have been involved in since you've taken on your current teaching assignment.

I've gone to conferences including KSRA, the big one. Small one-day conferences, some sponsored by KSRA. I went to the Reading Recovery ,conference in Columbus, a couple of years ago.

We've done district-level study groups, with the books Strategies That Work, Still Learning to Read, we've done several of Regie's (Routman) books, including Conversations. We've also done Mosaic of Thought. These have all occurred in the past few years.

Through our district's Early Literacy Initiative I've had some classroom coaching and in-district in-service presentations.

Also during the initiative, as I've worked on my Master's Degree, any independent projects that I could do, I focused it on the reading.

4. Please describe what you feel is important in teaching reading.

Well, you have to think of the reader as a whole, you can't be focused on isolated skills. Because your goal is to make a life-long reader. You have to make sure they can be independent problem-solvers, independent thinkers, and love to read.

Probes:

- Approaches: *I think it is important to model, to do things "shared." The guided reading, the independent practice. The gradual release of responsibility, to, with, and by.*

And it's not all about skills. Skills are not just a ladder where you climb go skill by skill by skill. You might have to go out of order, think about the big picture. As

long as you get to the big picture by the end, it doesn't matter what order you got there.

So, it sounds like you still include skill instruction...

Absolutely.

- Current Curriculum: *The curriculum drives my instruction.*

What else drives your instruction?

The students' needs.

And how do you know what those needs are?

The individual reading conferences, watching them in guided reading, my anecdotal records. I just watch them all the time. Reading their writing; on-going assessment.

- Thoughts on basal series: *Our series, the anthology series, is used as separate pieces of literature. Most of the stories are leveled, so I use them as leveled stories for guided reading.*

So you don't go through it page by page, but if a group would benefit from a story at a certain level, and a story from the anthology matches, you use it?

Right. It's just another material. There is also a really nice whole unit on space that matches part of our science curriculum. So I integrate it. Some groups listen to the story on tape, because it is too hard for them, some groups are reading it independently. We have stories that go with our social studies, with our science, some in the basal. I look at the whole big picture of the curriculum to see how I can use it all. That's where some of my Shared Reading text comes from; we got some great big books with our social studies. So we use them during our Shared

Reading and we have our reading skills and our social studies, and we can also talk about social studies.

- *Writing: What I found is that often after we've studied a genre in reading, their writing starts to mimic that genre that we studied. Like when we did our mystery unit they started writing mysteries.*

Did you require them to do that?

No, I didn't. But they just started doing that. And once they start their buddy conferences and enjoying each other's, it spreads. When we did our poetry unit in reading, a lot of kids started writing poetry.

So now you've been studying informational text, and the students are writing research...

That was an assignment. That again, is a part of our curriculum; they have to do some sort of research.

APPENDIX E

PARENT NOTIFICATION

Dear Parent or Guardian,

During five mornings over the next two weeks we will have a student from the University of Pittsburgh in our classroom to observe our regular reading instruction. Attached you will find a letter that she has written to describe the purpose of her observations. If you have any questions or concern, please contact me.

Teacher Signature

Dear Parent or Guardian:

I am a doctoral candidate at the University of Pittsburgh working with Dr. Rita M. Bean. I have worked as a Literacy Consultant for the XXXX School District for the past several years. It is through this work that I have become familiar with the elementary schools teachers in XXXX.

I am beginning a research study that will investigate the nature of excellent small group reading instruction. The results of this study will prove useful to other teachers as they attempt to deliver the best possible reading instruction to all students in their classroom. My intent is to get a sense of what an exemplary teacher does as she teaches the children in her class to read. Ms. XXXX has been selected as the participating teacher because she consistently demonstrates characteristics found in exemplary literacy instruction.

The instruction in your child's classroom will not change during the study. Ms. XXXX will teach as she always does; all classroom routines will remain in tact. I will simply observe the instruction that she provides to the students in her classroom. In an effort to collect the most reliable information, I will audiotape the *small group reading instruction* for five days. Your child will not be identified in the audio taped discussion.

If you do not want your child to participate in the regular small group reading instruction conducted during the course of the study, s/he will be invited to participate in literacy center activities and/or silent reading. If you have any questions about this study, please feel free to call me at 724-787-7676.

Thank you,

Julie Ankrum

APPENDIX F

SUPERINTENDENT PERMISSION

GREATER LATROBE SCHOOL DISTRICT

CENTRAL ADMINISTRATION OFFICE

410 Main Street • Latrobe, Pennsylvania 15650-1598

Dr. William D. Stavisky
Superintendent of Schools

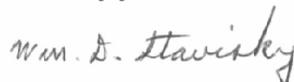
(724) 539-4203
FAX (724) 539-4202

April 12, 2006

Dear Internal Review Board:

Please accept this letter of consent to grant Julie Ankrum, a doctoral student at the University of Pittsburgh, with permission to conduct research for her doctoral dissertation in the Greater Latrobe School District. More specifically, she will complete her study by working with a teacher and her students in one of our classrooms at the Mt. View Elementary School. I personally have interest in and support for Mrs. Ankrum's study of differentiated reading instruction.

Sincerely yours,



William D. Stavisky, Ed.D.
Superintendent of Schools
2006 Pennsylvania Superintendent of the Year

WDS/pw

APPENDIX G

TEACHER NOTIFICATION

Dear *Teacher*,

Date

I am a doctoral candidate at the University of Pittsburgh working with Dr. Rita M. Bean. I have worked as a Literacy Consultant in your school district for the past several years. I am beginning a research study that will investigate the nature of excellent small group reading instruction. The results of this study will prove useful to other teachers as they attempt to deliver the best possible reading instruction to all students in their classroom. You have been identified as an exemplary teacher of literacy because you consistently demonstrate research-based characteristics found to be effective in teaching children to read and write. I would like to capture the nature of reading instruction in your classroom.

I do not want you to change your reading instruction during the study. Simply teach as you always do; please keep all classroom routines in tact. I will observe and document the instruction that you provide to the students in your classroom. In an effort to collect the most reliable information, I will record five days of your *small group reading instruction* on audiotape. I also plan to talk informally with you about your instruction prior to each lesson, and conduct one interview at the end of the observation period. The purpose of this discussion is for me to gain an understanding of the instructional decisions that you made during the week. Please see the attached script for details of the study.

I would greatly appreciate the time that you would devote as a volunteer in this study. Using pseudonyms will protect your name, as well as the name of the school and district. Therefore, you will not be identified as a participant in the study. Your participation is voluntary, and you may withdraw from the study at any time. If you have any questions about this study, please feel free to call me at 724-787-7676.

Thank you,

Julie Ankrum
Graduate Student Researcher
University of Pittsburgh

Rita Bean
Professor
University of Pittsburgh

APPENDIX H

IRB

PERMISSION



University of Pittsburgh
Institutional Review Board

Exempt and Expedited Reviews

University of Pittsburgh FWA: 00006790
University of Pittsburgh Medical Center: FWA 00006735
Children's Hospital of Pittsburgh: FWA 00006600

3500 Fifth Avenue
Suite 100
Pittsburgh, PA 15213
Phone: 412.383.1480
Fax: 412.383.1508

TO: Ms. Julie Ankrum

FROM: Sue R. Beers, Ph.D., Vice Chair

A handwritten signature in cursive script, appearing to read "Sue R. Beers".

DATE: May 22, 2006

PROTOCOL: Case Study: Differentiated Reading Instruction in an Exemplary Teacher's Classroom

IRB Number: 0604115

The above-referenced proposal has been reviewed by the Institutional Review Board on May 22, 2006. This submission does not meet the definition of research according to the Federal Policy Regulations, 45 CFR 46.102(d).

SRB:kh

APPENDIX I

STAGE ONE TRANSCRIPT CODES

PROJECT: Differentiated Instruction Copy, User julie ankrum, 8:03 am, Oct 4, 2006.

Selected nodes coding none of document JTranscription 3:

- (4) /Lesson Focus
- (4 2 2 2) /Lesson Focus/Teaching Points/TPC/TPCV
- (4 2 2 3) /Lesson Focus/Teaching Points/TPC/TPCV
- (4 3 1) /Lesson Focus/PRA/PRO
- (4 3 2 1) /Lesson Focus/PRA/PRW/Student Composition
- (4 3 2 2) /Lesson Focus/PRA/PRW/PRHO
- (4 3 5) /Lesson Focus/PRA/PRRO
- (8) /Assessment
- (8 1) /Assessment/AB
- (8 3) /Assessment/After

Margin coding keys for selected nodes in document JTranscription 3:

- A: (1 5) /Base Data/Small Group Lesson
- B: (4 2 1 1) /Lesson Focus/Teaching Points/TPWS/TPWSV
- C: (4 2 1 2) /Lesson Focus/Teaching Points/TPWS/TPWSD
- D: (4 2 2) /Lesson Focus/Teaching Points/TPC
- E: (4 2 2 1) /Lesson Focus/Teaching Points/TPC/TPCV
- F: (4 2 2 4) /Lesson Focus/Teaching Points/TPC/TPCC
- G: (4 2 2 5) /Lesson Focus/Teaching Points/TPC/TPCCO
- H: (4 3 3) /Lesson Focus/PRA/PRR
- I: (8 2) /Assessment/AD

+++ ON-LINE DOCUMENT: JTranscription 3
+++ Document Description:
* No Description

+++ Retrieval for this document: 384 units out of 683, = 56%

++ Text units 300-683:		
the handles in the handles on the old lamps squik (pause)	300 A	
T: We're a little rusty this morning, huh?	301 A	I
S: Yeah.	302 A	I
T: Good thing we're warming up. For a time they picked berries. Abby thought as	303 A	I
T and S: the handles on the old (pause)	304 A	I
T: pails squeaked.	305 A	I
S: Maybe she could write about a wi-, the wi- wild horse.	307 A	I
T: Go ahead and read it in your head honey, make sure it makes sense, keep yourself making sense, OK.	308 A	I
(Pause)	309 A	I
T: Finished? Great. Show me your favorite part in the book.	310 A	
(Pause)	311 A	
T: (whispers to each student) Where's your favorite part? Do you have your favorite part, or are you still picking?	312 A	
S: Mrs. ----	313 A	
T: Hmmm?	314 A	
S: All this talk about berries in this book is making me hungry.	315 A	
T: Making you hungry?	316 A	
S: Maybe at lunch we'll have blueberry muffins.	317 A	
T: There you go, what kind of berries does she pick again in this book?	318 A	
Students: Blueberries	319 A	D
T: Oh that's a right. Good thinking, Cassie, so you used some of the text to help you. Good job. Can you tell when they're picking what kind they are? Can you use another part of the text?	320 A	D
S: There are blueberry bushes.	321 A	D
T: So you're using the illustrations, to help.	322 A	D
S: (Unintelligible)	323 A	D
T: Good, I couldn't remember which one it was.	324 A	D
S: Because only blueberries are blue.	325 A	D
T: Only blueberries are blue?	326 A	D
S: Yeah.	327 A	D
T: OK, Elisa, I'm going to ask you to find us your favorite part, since we've already read this a couple of times.	328 A	D
S: OK	329 A	D
T: All right, Michael, tell me about your favorite part.	330 A	D
S: I like it when she says, "I hope cooking doesn't take that long" because she's too excited to write; she's anxious.	331 A	D
T: Oh, what a great word, she's anxious, she's very excited. Michael, that's a big change in the story, isn't it; she really changes in this story.	332 A	F
S: Yeah.	333 A	F
T: How does, because she wasn't excited when she started. What made her change?	334 A	F
S: Because she thought about it, and she wanted to write about a boy, a sad boy, and a wild horse...	335 A	F
T: She gets her horse story going, doesn't she?	336 A	F
S: Yeah	337 A	F
T: Does her aunt just let her run and write down her story?	338 A	F
Students (in unison): No.	339 A	F
S: You have to think a lot about it.	340 A	F
T: Yeah, her aunt...	341 A	F
S: It takes time...	342 A	F
S: It is really hard to make up a story.	343 A	F
T: Why doesn't her aunt let her get her ideas down on paper though?	344 A	F
S: Because you have to do all the work first.	345 A	F
T: Why? Why does her aunt...	346 A	F
S: You have to think, about what you are going to write about.	347 A	F
T: OK	348 A	D
S: Because you could just write something...whoopee do dah something...	349 A	D
	350 A	D
	351 A	D
	352 A	D
	353 A	D
	354 A	D
	355 A	D
	356 A	D
	357 A	D
	358 A	D
	359 A	D

APPENDIX J

STAGE TWO TRANSCRIPT CODES

+++++
Margin coding keys for selected nodes in document JTranscription 3:
A: (1 5) /Base Data/Small Group Lesson E: (5 4) /Scaffolding Sequences/SC
B: (5 1) /Scaffolding Sequences/SEM F: (5 5) /Scaffolding Sequences/SV
C: (5 2) /Scaffolding Sequences/SDE G: (5 6) /Scaffolding Sequences/Telling
D: (5 3) /Scaffolding Sequences/SIP

+++ ON-LINE DOCUMENT: JTranscription 3
+++ Document Description:
* No Description

+++ Retrieval for this document: 384 units out of 683, = 56%
***** 242
++ Text units 300-683:
the handles in the handles on the old lamps squik (pause) 300 A
T: We're a little rusty this morning, huh? 301 A B
S: Yeah. 302 A B
T: Good thing we're warming up. For a time they picked berries. Abby
thought as 303 A B
T and S: the handles on the old (pause) 304 A B
T: pails squeaked. 305 A B
S: Maybe she could write about a wi-, the wi- wild horse. 306 A B
T: Go ahead and read it in your head honey, make sure it makes sense,
keep yourself making sense, OK. 307 A B
(Pause) 308 A B C
T: Finished? Great. Show me your favorite part in the book. 309 A B C
(Pause) 310 A
T: (whispers to each student) Where's your favorite part? Do you have
your favorite part, or are you still picking? 311 A D
S: Mrs. ---- 312 A
T: Hmmm? 313 A D
S: All this talk about berries in this book is making me hungry. 314 A D
T: Making you hungry? 315 A
S: Maybe at lunch we'll have blueberry muffins. 316 A
T: There you go, what kind of berries does she pick again in this book? 317 A
Students: Blueberries 318 A
T: Oh that's right. Good thinking, Cassie, so you used some of the text
to help you. Good job. Can you tell when they're picking what kind they
are? Can you use another part of the text? 319 A
S: There are blueberry bushes. 320 A E
T: So you're using the illustrations, to help. 321 A
S: (Unintelligible) 322 A E
T: Good, I couldn't remember which one it was. 323 A E
S: Because only blueberries are blue. 324 A E
T: Only blueberries are blue? 325 A E
S: Yeah. 326 A E F
T: OK, Elisa, I'm going to ask you to find us your favorite part, since
we've already read this a couple of times. 327 A E
S: OK 328 A E
T: All right, Michael, tell me about your favorite part. 329 A E
S: I like it when she says, "I hope cooking doesn't take that long"
because she's too excited to write; she's anxious. 330 A D
T: Oh, what a great word, she's anxious, she's very excited. Michael,
that's a big change in the story, isn't it; she really changes in this
story. 331 A C F
S: Yeah. 332 A C
T: How does, because she wasn't excited when she started. What made her
change? 333 A D
S: Because she thought about it, and she wanted to write about a boy, a
sad boy, and a wild horse... 334 A D
T: She gets her horse story going, doesn't she? 335 A
S: Yeah 336 A E
T: Does her aunt just let her run and write down her story? 337 A E
Students (in unison): No. 338 A
S: You have to think a lot about it. 339 A
T: Yeah, her aunt... 340 A
S: It takes time... 341 A
S: It is really hard to make up a story. 342 A
T: Why doesn't her aunt let her get her ideas down on paper though? 343 A E
S: Because you have to do all the work first. 344 A
T: Why? Why does her aunt... 345 A D
S: You have to think, about what you are going to write about. 346 A
T: OK 347 A
S: Because you could just write something...whoopie do dah something... 348 A
T: It's kind of like what Mrs. J. tells you in Writing Workshop, doesn't
it? You have to sketch your ideas, brainstorm your ideas, get them down,
get them down before you jump into writing that story. You have to do
that, don't you? And I like how her aunt keeps her busy. That was a
great and very important part, Michael that you pointed out. 349 A C F
T: What did you think, Walker? 350 A C
S: About? 351 A D
T: Your favorite part. 352 A
S: I think it, um, was, interesting how they um, put the berries, how
they put the juice in here. 353 A E
T: Yeah, what was that whole process that they were doing there? 354 A
S: (Pause) 355 A E
356 A
357 A
358 A
359 A
360 A C
361 A C
362 A C
363 A C F
364 A C F
365 A D
366 A
367 A E
368 A
369 A
370 A E
371 A

APPENDIX K

COMPREHENSION STRATEGY RUBRIC

Primary Reading Comprehension Strategies Rubric (2-3)

	Level One	Level Two	Level Three	Level Four
Making Connections (Prior Knowledge) Questioning	Does not make connections to the text Unable to ask or answer questions; gives inappropriate or off topic responses	Talks about what text reminds them of, but cannot explain how it relates to the text Beginning to ask and answer questions; unable to support with evidence from the text	Relates background knowledge/experience to text Can ask and answer questions and begin to provide evidence from the text	Links background knowledge and examples from the text to enhance comprehension and/or interpretation Asks and answers different types of questions; and finds evidence in the text to support questions and answers
Visualizing (Sensory Imagery)	Does not demonstrate use of sensory images	Demonstrates use of some sensory images	Demonstrates use of sensory images; images are somewhat elaborated from literal text or existing pictures	Demonstrates multi-sensory images that extend and enrich the text; demonstration may be through any modality or medium.
Determining Importance	Unable to identify important concepts in the text	Identifies some important concepts in text (i.e. characters, plot, main idea, or setting)	Identifies some important concepts in text with some supporting explanation (i.e. characters, plot, main idea, or setting)	Identifies at least one key idea, theme, or concept linking it to the overall meaning of the text. Uses supporting details from the text to clearly explain why it is important
Monitoring Comprehension	Does not identify difficulties or problem areas	Identifies difficulties, but does not articulate need to solve problem or articulate the problem area	Identifies difficulties and articulates need to solve the problem, but does not use strategies independently to solve the problem; may need teacher guidance	Identifies difficulties, articulates need to solve the problem and identifies the appropriate strategy to solve the problem (i.e. using meaning, visual, or structural cues)
Inferring	Does not make predictions, interpretations, or draw conclusions	Makes predictions, interpretations, and/or draws conclusions, but does not justify response with information from the text	Makes predictions, interpretations and/or draws conclusions and justifies response with information from the text; some teacher prompting may be necessary	Independently makes predictions, interpretations, and/or draws conclusions; and clearly explains connections using evidence from the text and personal knowledge, ideas, or beliefs
Synthesizing	Unable to retell elements of the text	Randomly retells some elements of the text	Retells all key elements of the text in logical sequence	Retells elements of the text in logical sequence with some extension to overall theme, message, or background knowledge

Adapted from rubrics developed by Language Arts Committee, Walnut Creek School District

APPENDIX L

READING FLUENCY RUBRIC

Screening guide for Fluency

Grade 2

Student name: _____ Date: _____

1	2	3	4
<ul style="list-style-type: none"> • Words are read as if in isolation • No expression • Punctuation signals are not used. 	<ul style="list-style-type: none"> • Words run together • Some expression • Punctuation signals are used once in a while 	<ul style="list-style-type: none"> • Words are smoothly paced with only occasional run-ons. • Expression is demonstrated most of the time • Punctuation signals are used most of the time 	<ul style="list-style-type: none"> • Reading is fluent and evenly paced. • Expressive reading is evident • Punctuation signals are used all of the time
<ul style="list-style-type: none"> • Can not identify basic sight words 	<ul style="list-style-type: none"> • Identifies some sight words 	<ul style="list-style-type: none"> • Identifies most sight words 	<ul style="list-style-type: none"> • Identifies all expected sight words
<ul style="list-style-type: none"> • Does not use phonetic strategies to sound out words 	<ul style="list-style-type: none"> • Applies limited phonetic strategies to sound out words 	<ul style="list-style-type: none"> • Applies most phonetic strategies to sound out words 	<ul style="list-style-type: none"> • Application of phonetic strategies is automatic
<ul style="list-style-type: none"> • Continues to read although words do not make sense 	<ul style="list-style-type: none"> • Occasionally stops the reading if the meaning becomes unclear 	<ul style="list-style-type: none"> • Goes back to reread a phrase or sentence for meaning 	<ul style="list-style-type: none"> • Self corrects immediately if a word does not make sense
<ul style="list-style-type: none"> • Instructional level and words per minute are below grade level expectation by one year. 	<ul style="list-style-type: none"> • Instructional level and words per minute are below grade level expectation by a half year 	<ul style="list-style-type: none"> • Instructional level is in the satisfactory range for grade level 	<ul style="list-style-type: none"> • Instructional level is at grade level or higher than grade level. Words per minute are in the high satisfactory range or advanced.
Novice (0-7)	Part. Prof. (8-10)	Proficient (11-17)	Advanced (18-20)

BENCHMARKS

<u>GRADE</u>		<u>FALL</u>	<u>WINTER</u>	<u>SPRING</u>
1	25 th %ile	0	8	35
	75 th %ile	9	52	94
2	25 th %ile	17	41	60
	75 th %ile	77	119	133
3	25 th %ile	52	67	86
	75 th %ile	110	132	141
4	25 th %ile	61	80	87
	75 th %ile	117	135	142
5	25 th %ile	73	86	98
	75 th %ile	130	144	153
6	25 th %ile	102	111	117
	75 th %ile	155	165	171

REFERENCES

- Adler, P.A. & Adler, P. (1994). Observational techniques. In N.K. Denzin & Y.S. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 377-391). London: Sage Publications, Inc.
- Al Otaiba, S.A., Kosanovich-Grek, M.L., Torgesen, J.K., Hassler, L., Wahl, M. (2005). Reviewing core kindergarten and first grade reading programs in light of No Child Left Behind: An exploratory study. *Reading & Writing Quarterly*, 21, 377-400.
- Allington, R.L. (1983). The reading instruction provided readers of differing abilities . *The Elementary School Journal*, 83 (5), 548-559.
- Allington, R.L. & Walmsley, S.A. (1995). *No quick fix: Rethinking literacy programs in America's elementary schools*. New York: Teacher's College Press.
- American Federation of Teachers (1999). *Building on the best, learning from what works*. Washington DC: American Federation of Teachers. Retrieved 1/31/06 from www.aft.org/pubs-reports/downloads/teachers/remedial.pdf
- Anderson, D. (2006). Sharon Vaughn: The state of reading research and instruction for struggling readers. *Intervention in School & Clinic*, 41, 3, 169-174.
- Atkinson, P. & Hammersley, M. (1994). Ethnography and participant observation. In N.K. Denzin & Y.S. Lincoln (Eds.), *Handbook of Qualitative Research Handbook of Qualitative Research* (pp. 248-261). London: Sage Publications, Inc.
- Barr, R. (1973/1974). Instructional paces and their effect on reading acquisition. *Reading Research Quarterly*, 9 (4), 526-554.
- Barr, R. (1975). How children are taught to read: Grouping and pacing. *The School Review*, 83, (3), 479-498.
- Barr, R., & Dreeben, R. (1991). Grouping students for reading instruction. In R. Barr, M. Kamil, P. Mosenthal, & P.D. Pearson (Eds.), *Handbook of Reading Research Vol. 2*, (pp. 885-910). New York: Longman.

- Bloom, B.S. (1984). The 2 Sigma problem: The search for methods of group instruction as effective as one-to-one tutoring. *Educational Researcher*, 13 (6), 4-16.
- Brown, R., Pressley, M., Van Meter, P., & Schuder, T. (1996). A quasi-experimental validation of transactional strategies instruction with low achieving second-grade readers. *Journal of Educational Psychology*, 88 (1), 18-37.
- Bruner, J. (1986). *Actual minds, possible worlds*. Cambridge MA: Harvard University Press.
- Borg, W.R., & Gall, M.D. (1983). *Educational research: An introduction (4th Ed.)*. New York: Longman.
- Daniels, H. (2001). *Literature circles: Voice and choice in book clubs and reading groups*. Portland, ME: Stenhouse Publishers.
- Dorn, L.J., French, C., & Jones, T. (1998). *Apprenticeship in literacy: Transitions across reading and writing*. Portland, ME: Stenhouse Publishers.
- Dreeben, R., & Barr, R., (1988). The formation and instruction of ability groups. *American Journal of Education*, 97, 34-61.
- Duffy, G.G., Roehler, L.R., Meloth, M.S., Vavrus, L.G., Book, C., Putnam, J., & Wesselman R. (1986). The relationship between explicit verbal explanations during reading skill instruction and student awareness and achievement: A study of reading teacher effects. *Reading Research Quarterly*, 21(3), 237-252.
- Duffy, G.G., Roehler, L.R., & Rackliffe, G. (1986). How teachers' instructional talk influences students understanding of lesson content. *Elementary School Journal*, 87(1), 3-16.
- Flood, J., Lapp, D., Flood, S., & Nagel, G.(1992). Am I allowed to group? Using flexible patterns for effective instruction. *Reading Teacher*, 45 (8), 608-616.
- Fountas, I.C., & Pinnell, G.S. (1996). *Guided reading: Good first teaching for all children*. Portsmouth, NH: Heinemann.
- Gage, N.L., & Needels, M.C. (1989). Process-product research on teaching: A review of the criticisms. *Elementary School Journal*, 89(3), 253-300.
- Hiebert, J., Wearne, D., & Taber, S. (1991). Fourth graders' gradual construction of decimal fractions during instruction using different physical representations. *Elementary School Journal*, 91 (4), 321-339.
- Huberman, M.A., & Miles, M.B. (1994). Data management and analysis methods. In N.K. Denzin & Y.S.Lincoln (Eds.), *Handbook of qualitative research*, 428-444. London: Sage Publications, Inc.

- Lysynchuk, L.M., Pressley, M., & Vye, N.J. (1990). Reciprocal teaching improves standardized reading-comprehension performance in poor comprehenders. *Elementary School Journal*, 90(5), 469-484.
- Maloch, B. (2002). Scaffolding student talk: One teacher's role in literature discussion groups. *Reading Research Quarterly*, 37(1), 94-112.
- Mazzoni, S.A., & Gambrell, L.B., (2003). Principles of best practice: finding the common ground. In L. Morrow, L.B. Gambrell, & M. Pressley (Eds), *Best Practices in Literacy Instruction 2nd Ed.*, (pp. 9-22). New York: Guilford Press.
- McGill-Franzen, A., Zmach, C., Solic, K., & Zeig, J.L. (2006). The confluence of two policy mandates: core reading programs and third grade retention in Florida. *Elementary School Journal*, 107 (1) 67-91.
- McMahon, S., & Raphael, T.E. (1997). *The book club connection: Literacy learning and classroom talk*. Columbia University: Teachers College Press.
- Mercer, N. (1995). *The guided construction of knowledge*. Bristol, Pa: Multilingual Matters.
- Metsala, J.L., & Wharton-McDonald, R. (1997). Effective primary grades literacy instruction=balanced literacy instruction. *Reading Teacher*, 50(6).
- Miles, M.B., & Huberman, M.A. (1994). *Qualitative data analysis (2nd Ed.)*. Thousand Oaks, CA: Sage Publications.
- Moats, L. (1999). *Teaching reading is rocket science: What expert teachers of reading should know and be able to do*. American Federation of Teachers.
- Moody, S.W. & Vaughn, S. (1997). Instructional grouping for reading. *Remedial & Special Education*, 18 (6) 347-356. Retrieved from <http://web20.epnet.com/citation.asp> (16 pages).
- Morrow, L.M., Tracey, D.H., Woo, D.G, & Pressley, M. (1999). Characteristics of exemplary first-grade literacy instruction. *Reading Teacher* 52(5), 462-476.
- Opitz, M.F. (1998). Text sets: One way to flex your grouping-in first grade, too! *Reading Teacher*, 51 (7), 622-624.
- Ornstein, A. (1995). Synthesis of research: Teaching whole-group classrooms. *Peabody Journal of Education*, 70 (2), 104-116.
- Pallas, A.M, Entwisle, D.R., Alexander, K.L., & Stluka, F. (1994). Ability-group effects: Instructional, social, or institutional. *Sociology of Education*, 67 (1), 27-46.

- Paliscsar, A.S., & Brown, A.L. (1984). Reciprocal teaching of comprehension-fostering and comprehension monitoring activities. *Cognition and Instruction*, 1(2), 117-175.
- Pressley, M., El-Dinary, P.B., Gaskins, I., Schuder, T., Bergman, J.L., Almasi, J., & Brown, R. (1992). Beyond direct explanation: Transactional instruction of reading comprehension strategies. *Elementary School Journal*, 92(5),513-555.
- Pressley, M., Rankin, J., & Yokoi, L. (1996). A survey of instructional practices of primary teachers nominated as effective in promoting literacy. *Elementary School Journal*, 96 (4), 363-384.
- Pressley, M., Wharton-McDonald, R., Allington, R., Block, C.C., Morrow, L., Tracey, D., Baker, K., Brooks, G., Cronin, J., Nelson, E., & Woo, D. (1998). The nature of effective first-grade literacy instruction. *CELA Report No. 11007*. University at Albany, Albany, New York.
- Pressley, M., Wharton-McDonald, R., Allington, R., Block, C., Morrow, L., Tracey, D., Baker, K., Brooks, G., Cronin, J., Nelson, E., & Woo, D. (2001). Strategy instruction for elementary students searching informational text. *Scientific Studies of Reading*, 5 (1), 35-59.
- Raymond, A.M. (1997). Inconsistency between a beginning elementary school teacher's mathematics beliefs and teaching practice. *Journal for Research in Mathematics Education*, 28 (5), 550-576.
- Rayner, K., Foorman, B. R., Perfetti, C. A., Pesetsky, D., & Seidenberg, M. S. (2002, March). How should reading be taught? *Scientific American*, 286, 84-91.
- Reutzel, R.D. (2003). Organizing effective literacy instruction: Grouping practices and instructional routines. In L. Morrow, L. Gambrell, & M. Pressley (Eds), *Best Practices in Literacy Instruction (2nd Edition)*, (pp. 241-267). New York: The Guilford Press.
- Richards, T.J., & Richards, L. (1994). Using computers in qualitative research. In N.K. Denzin & Y.S.Lincoln (Eds.) *Handbook of Qualitative Research*, (pp. 445-462) . London: Sage Publications, Inc.
- 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.
- Rodgers, E.M. (2004). Interactions that scaffold reading performance. *Journal of Literacy Research*, 36 (4), 501-532.
- Roehler, L.R., & Cantlon, D.J. (1997). Scaffolding: A powerful tool in social constructivist classrooms. In K. Hogan & M. Pressley (Eds.), *Scaffolding student*

- learning: Instructional approaches and issues* (pp. 6-42). Cambridge, MA: Brookline.
- Schumm, J.S., Moody, S.W., & Vaughn, S. (2000). Grouping for reading instruction: Does one size fit all? *Journal of Learning Disabilities* 33, 5, (477-488).
- Slavin, R.E. (1987). A theory of school and classroom organization. *Educational Psychologist*, 22 (2), 89-108.
- Stanovich, K.E. (1986). Matthew effects in reading: Some Consequences of individual differences in the acquisition of literacy. *Reading Research Quarterly* (21) 4, 360-347.
- Stake, R.E. (1994). Case studies. In N.K. Denzin & Y.S. Lincoln (Eds.) *Handbook of Qualitative Research*, (pp. 236-247). London: Sage Publications, Inc.
- Stone, C.A. (1998). The metaphor of scaffolding: Its utility for the field of learning disabilities. *Journal of Learning Disabilities*, 31, 344-364.
- Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory and procedures and techniques*. Newbury Park, CA: Sage.
- Taylor, B.M. & Pearson, P.D. (2000). *The CIERA School Change Classroom Observation Scheme*. Minneapolis: University of Minnesota.
- Taylor, B.M., Pearson, P.D., Clark, K.F., & Walpole, S. (1999). Effective schools/accomplished teachers. *The Reading Teacher*, 53 (2), 156-159.
- Taylor, B.M., Pearson, P.D., Clark, K.F., & Walpole, S. (2000). Effective schools and accomplished teachers: Lessons about primary-grade reading instruction in low-income schools. *Elementary School Journal*, 101(2), 121-164.
- Taylor, B.M., Peterson, D.S., Pearson, P.D., & Rodriguez, M.C. (2002a). Looking inside classrooms: reflecting on the 'how' as well as the 'what' in effective instruction. *Reading Teacher* 56 (3), 270-280.
- Taylor, B.M., Pearson, P.D., Peterson, D., & Rodriguez, M.C. (2002b). The CIERA School Change Project: Supporting schools as they implement home-grown reading reform. *CIERA Report #2016*. Center for the Improvement of Early Reading Achievement, University of Michigan-Ann Arbor.
- Taylor, B.M., Pearson, P.D., Peterson, D., & Rodriguez, M.C. (2003). Reading growth in high-poverty classrooms: The influence of teacher practices that encourage cognitive engagement in literacy learning. *Elementary School Journal*, 104 (1), 3-28.
- Teddle, C., Kirby, P.C., Stringfield, S. (1989). Effective versus ineffective schools: observable differences in the classroom. *American Journal of Education*, 97, (3), 221-236.

- U.S. Department of Education (2001). *No Child Left Behind Act: Executive summary*. Retrieved September 1, 2005, from <http://www.ed.gov/nclb/overview/intro/execsumm.html>
- U.S. Department of Education (2002). Evidence Based Education. PowerPoint slides from Student Achievement and School Accountability Conference October 2002. Retrieved on February 3, 2006 from <http://www.ed.gov/nclb/methods/whatworks/eb/edlite-index.html>
- Vygotsky, L.S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Walpole, S., Justice, L.M., & Invernizzi, M.A. (2004). Closing the gap between research and practice: case study of school-wide literacy reform. *Reading and Writing Quarterly*, 20, 261-283.
- Wang, M.C. (1980). Adaptive instruction: Building on diversity. *Theory Into Practice*, 19, (2), 122-128.
- Wertsch, J.V. (1985). *Vygotsky and the social formation of mind*. Cambridge, MA: Harvard University Press.
- Wiebe Berry, R.A. (2006). Beyond strategies: teacher beliefs and writing instruction in two primary inclusion classrooms. *Journal of Learning Disabilities*, 39 (1), 11-24.
- Wharton-McDonald, R., Pressley, M., Hampston, J. (1998). Literacy instruction in nine first-grade classrooms: Teacher characteristics and student achievement. *Elementary School Journal*, 99 (2), 101-128.
- Wozniak, R.H. (1980). Theory, practice, and the “Zone of Proximal Development” in Soviet psychoeducational research. *Contemporary Educational Psychology*, 5, 175-183.
- Yin, R.K. (2003). *Case study research: Design and methods (3rd Edition)*. Thousand Oaks, CA: Sage Publications, Inc.