

INVESTIGATION OF RUNNING RECORDS AND HOW TEACHERS USE THE
READING INFORMATION TO INFORM INSTRUCTION

by

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“Say a little prayer.” --John J. Farley 1930-2011

I prayed and I finished. Thank you, Dad.

This study is dedicated to Renée, my daughter, and Keith, my husband. I could not have finished this work without your patience and love as you tirelessly supported me throughout this journey. This accomplishment is every bit yours as it is mine. Renée, remember to always follow your dreams. Keith, thank you for letting me follow mine. I thank God every day for both of you. I love you beyond measure.

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Joanne Farley LeBlanc

ABSTRACT

INVESTIGATION OF RUNNING RECORDS AND HOW TEACHERS USE THE READING INFORMATION TO INFORM INSTRUCTION

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Adviser: Tanya M. Christ, Ph.D.

A qualitative research approach was taken to examine (1) how teachers used running records to identify students' needs, and (2) how those needs were addressed in subsequent instruction. Participants included three first-grade classroom teachers from across two schools, and one high-, average-, and low-performing reader in each classroom (nine first-grade students in all). Four data sources were collected: (1) brief initial interviews to identify demographic data for teachers and students, (2) video recordings of running record sessions and brief instruction immediately following these sessions, (3) artifacts from the running record sessions, and (4) semi-structured teacher interviews after teachers had time to more deeply analyze the running record assessment data. Data were coded using emergent coding and constant comparative analysis to identify themes and subthemes that reflected how teachers used running records to identify students' needs and how those needs were addressed in instruction. Findings showed that (1) teachers' data collection was inconsistent, (2) teachers blurred the line between assessment and instruction by integrating instruction into their assessment, (3) the quality of the in-the-moment analyses of assessment varied across teachers, (4)

teachers identified most of their students' needs when given additional time for analysis, (5) teachers addressed a limited breadth of needs (just chunking and retelling) despite broader student needs being evident, and (6) the quality of instruction was consistently varied. This study extended knowledge in the field about how first-grade classroom teachers use running records for assessment and to guide instruction.

TABLE OF CONTENTS

ACKNOWLEDGMENTS	iv
ABSTRACT	v
LIST OF TABLES	xi
LIST OF FIGURES	xii
CHAPTER 1 PROBLEM, JUSTIFICATION, AND STUDY DESIGN	1
Introduction	1
Background	2
Statement of the Problem, Need, and Significance	3
Research Questions	4
Design and Methodology	4
Setting	5
Participants	5
Data Sources and Collection	6
Data Analysis	8
Definition of Terms	8
Limitations	9
Summary	9
CHAPTER 2 REVIEW OF THE LITERATURE	11
Introduction	11

TABLE OF CONTENTS—Continued

Literacy Processing Theory	11
How Running Records Capture Reader Processing	14
What are Running Records?	14
How are Running Records Used?	16
What are the Benefits of Running Records?	19
How Teachers Use Running Records to Inform Instruction	20
Summary	23
CHAPTER 3	
METHODOLOGY	25
Introduction	25
Research Questions	25
Research Design	25
Setting	26
Participants	27
Data Sources and Collection	28
Data Analysis	32
Summary	34
CHAPTER 4	
FINDINGS	35
Introduction	35
How Teachers Use Running Records to Identify Students’ Instructional Needs	35

TABLE OF CONTENTS—Continued

Data Collected During Running Records Assessments Were Inconsistent	36
Teachers Provided Instruction During assessment	38
Teachers' Quality of In-the-Moment Analyses of Assessment Data Varied	44
Teachers Were Able to Identify Most Students' Needs Evidenced by the Data	45
How Students' Needs Were Addressed in Instruction	46
Limited Range of Focal Teaching Points	47
Instructional Activities	47
Summary	50
CHAPTER 5	
DISCUSSION	51
Introduction	51
Refining of Teachers' Instruction	51
Extension of Knowledge in the Field	53
Implications	55
Limitations and Future Research Suggestions	56
Reading Recovery and Classroom Instruction Differences	57
Summary	58
APPENDICES	
A. Approval Letter from the Institutional Review Board for the Protection of Human Subjects	61

TABLE OF CONTENTS—Continued

B. Brief Initial Interview Questions	64
C. Semi-Structured Teacher Interview Questions	66
D. Tables Used for Coding	68
REFERENCES	76

LIST OF TABLES

Table 1	Information from the Brief Initial Interview	29
Table 2	Student Information	30
Table D1	Kinds of Assessment Data Teachers Collected During Running Record Sessions	69
Table D2	Comparison of Needs Identified by Researcher vs. Teachers Based on Running Record Sessions	73

LIST OF FIGURES

Figure 1	Observation Sheet for Teacher (Andrea)-Student (Elizabeth) Dyad Regarding Both Assessment and Instruction Across Data Sources	7
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CHAPTER ONE

PROBLEM, JUSTIFICATION, AND STUDY DESIGN

Introduction

As a Reading Recovery® teacher leader and early literacy consultant for the past seventeen years, I have taught Reading Recovery and classroom teachers how to administer Dr. Marie M. Clay's running records of text reading. During the time that I have worked with the teachers, I have learned from many of them as well. Some of the conversations centered on running records for successful student reading included students' problem-solving attempts at letters and words, teaching for phrased and fluent reading, and analysis of the sources of information used or neglected. Teachers need to have many conversations with others regarding the analysis of running records in order to strengthen their understanding. My goal is to support teachers' learning in positive ways so that they use running records authentically within their classrooms so that it informs instruction.

Not only do I train teachers to take running records in a conventional way so that every teacher can read another teacher's running record, I work to improve their learning each time that a running record is discussed. Taking a running record in a conventional way is one piece of the learning; however, the critical piece is to understand how to analyze the running record so that the information informs instruction. Individual students are assessed by a teacher using a running record, so the teacher can immediately make a decision as to the teaching point that would be most beneficial for that child at

that moment. This is not an easy task; therefore, it is to the teacher's advantage to become well informed on both conventions and analysis of running records.

Background

Children who fall behind during the early elementary years often experience difficulty catching up with their peers (Clay, 1991; Cunningham & Stanovich, 1997), therefore, an early literacy intervention plan is crucial (Clay, 2013). It is important that students become successful readers because reading improves the achievement in and out of school (Juel, 1988; Snow, Burns, & Griffin, 1998). Another important factor is that knowledge of early literacy assessment helps teachers evaluate children's reading development (Clay, 2013).

One way to assess students individually is to listen to them orally read books while taking running records of text reading. Running records are designed to be taken orally so that the teacher can record everything that the child does while reading a text (Clay, 2013). Further, the teacher can assess the literacy processing system that the student uses while reading that will be useful when working directly with the student (Clay, 2013). In order to improve reading, teachers use running records to help determine what readers need to learn next (Clay, 2013). Listening to students read will provide an assessment of text reading and documentation of change over time in a student's literacy processing system while reading (Clay, 2013). Teachers should learn how to appropriately administer and interpret running records in order to assess text difficulty, to guide teaching, to plan a path of learning for each student, and to monitor students' progress (Clay, 2013).

Once a teacher learns and understands how to administer running records, it becomes much easier, and the information gained from the running record is used to help the student (Clay, 2013). Teachers use conventions for recording vital information that is fundamental to making diagnostic, instructional, and evaluative decisions in the classroom (Clay, 2013). Running records are taken while following standard recording conventions and teachers can select any text that the child is reading (Clay, 2013). As a child orally reads continuous text, the teacher records what the child said thereby capturing the reading event on paper (Clay, 2013). Over time, the teacher becomes a skilled recorder and can capture all the reading behaviors that will assist in the interpretation of the record when the child is finished reading (Clay, 2013). These running records are meant to inform instructional decision-making (Clay, 2013).

Statement of the Problem, Need, and Significance

While there are studies that demonstrate the broad effectiveness of Reading Recovery teaching methods and using running records (e.g., Cassidy Schmitt, 2001; McGee, Kim, Nelson, & Fried, 2015), few studies have been conducted specifically on the effectiveness of teachers' use of running records to inform their instruction. One such study showed that classroom teachers who used running records and observations to monitor student progress were able to use this information to inform differentiated instruction for word recognition, fluency, and comprehension (Watts-Taffe et al., 2012).

It is suggested by researchers that teachers should use running records and they do as part of teaching practices (Bean, Cassidy, Grumet, Shelton, & Wallis, 2002; Clay, 2013; Mokhtari, Porter, & Edwards, 2010; Stafford, 2000), which is also associated with

teaching and school effectiveness and student achievement even with struggling readers (Pressley et al., 2001; Ross, 2004; Stafford, 2000). Still, regardless of the benefits of using running records to inform instruction, studies about teachers using running records to inform instruction are meager.

Further, while the guidelines for using running records do not specifically include assessing text comprehension, researchers have hypothesized that if used appropriately by an informed teacher they can offer a window into the student's comprehension processes and inform instructional decision-making for comprehension (Clay, 2013). However, no empirical research has tested this hypothesis. Thus, there is also a need for research that explicitly examines the utility of running records to inform comprehension instruction.

Research Questions

Given the need for empirical research to inform how classroom teachers are using running records data to inform instruction, this study aims to answer the following research questions:

1. How do teachers use running records to identify students' instructional needs?
2. How are those needs addressed in subsequent instruction?

Design and Methodology

This study used a qualitative research design that looked across multiple, purposefully selected cases (Creswell, 2007). The following subsections provide a brief overview of the methodology, which is discussed in more detail in Chapter Three.

Setting

The first-grade classrooms are located in two elementary school buildings that are part of two different public school districts in the Midwestern section of the United States.

One public elementary school is located in a rural area that is situated in a small town. The district is comprised of four elementary schools, one intermediate school, one middle school, one high school, and one alternative high school. Enrollment for kindergarten through fourth grade is 393 students from a district that serves about 5,000 children in the community. Approximately 19% of the students receive free or reduced lunch. The majority of the families in the district are Caucasian (92%) with a small population of African American, Blended Race, Latino, American Indian/Alaska Native, and Asian families.

The second public elementary school is located in a suburban area and the school is situated in a neighborhood environment. The district has one elementary building, one junior high school, one high school, and one alternative high school serving 684 children in the community. There are 381 students enrolled in kindergarten through sixth grade and approximately 83% receive free or reduced lunch. The school has a student population with a majority of Caucasian families (79%), as well as Latino, Blended Race, African American, and Asian families.

Participants

The participants of the study included three first-grade classroom teachers from two schools in two different school districts. The teachers have varied levels of

education and years of experience. All teachers share similar training experiences as they learned to administer running records, however, they differ in the amount of training time received and the level of intensity and deep understanding of analysis. The participants report using running records in their first-grade classrooms to assess student progress in reading at varying intervals across the school year.

The selection of students was purposeful to reflect -one high, average, and struggling first-grade student for this study. This provided for a range of running record performance to be analyzed by each teacher.

Data Sources and Collection

Four data sources were collected in this study. These were brief initial interviews, video recordings of running record sessions, running record artifacts, and semi-structured teacher interviews conducted later in the same classroom when the children are not present.

First, a brief interview was used to gather demographic data at the beginning of the study from each of the three focal teacher participants. The interview was used to ask each teacher to identify three focal child participants from their classroom -one high, average, and struggling reader (See Appendix B).

Second, video recordings of running record assessment sessions were collected for three children across each of three classrooms; nine sessions in all. A running record session included taking the running record as the child reads and teaching after the running record. Running record artifacts from each of these sessions were collected. An observation sheet was used to code the data (See Figure 1).

Aspects of Reading	Video Recordings	Artifacts	Interviews
Concepts About Print (Directionality, word-by-word matching, punctuation, book handling)	<p>Assessment Not addressed</p> <hr/> <p>Instruction Not addressed</p>	<p>Assessment Identified need to adhere to one-to-one match</p> <hr/> <p>Instruction Not addressed</p>	<p>Assessment Not addressed</p> <hr/> <p>Instruction Not addressed</p>
Word Recognition (Strategies, cuing systems, patterns, chunking, sounding out, analogy)	<p>Assessment Not addressed</p> <hr/> <p>Instruction Taught student to look at word, initial letter sound, beginning of word, matching sounds in word with finger</p>	<p>Assessment Collected data for Error Ratio, SC Ratio, MSV, SC analysis</p> <hr/> <p>Instruction Not addressed</p>	<p>Assessment Interested in MSV analysis, used picture/word</p> <hr/> <p>Instruction Taught student to look at beginning of word rather than just picture, SC</p>
Comprehension (Text-Based: Connections, retell) (Higher-Order: Inference, critical thinking) (Monitoring)	<p>Assessment Not addressed</p> <hr/> <p>Instruction Not addressed</p>	<p>Assessment Not addressed</p> <hr/> <p>Instruction Not addressed</p>	<p>Assessment Not addressed</p> <hr/> <p>Instruction Not addressed</p>
Fluency (Rate, expression, cadence, intonation, smoothness)	<p>Assessment Not addressed</p> <hr/> <p>Instruction Not addressed</p>	<p>Assessment Not addressed</p> <hr/> <p>Instruction Not addressed</p>	<p>Assessment Not addressed</p> <hr/> <p>Instruction Not addressed</p>
Other (Setting up the assessment task)	<p>Assessment Not addressed</p> <hr/> <p>Instruction Taught to look at pictures to tell story, gist of the story</p>	<p>Assessment Collected conventions & scores</p> <hr/> <p>Instruction Not addressed</p>	<p>Assessment Interested in easy, instructional, hard level, use pictures</p> <hr/> <p>Instruction Not addressed</p>

Figure 1 Observation Sheet for Teacher (Andrea)-Student (Elizabeth) Dyad Regarding Both Assessment and Instruction Across Data Sources

Third, immediately after each running record session, a semi-structured interview was conducted with the teacher to explore how she will use that running record to inform instruction for that child (See Appendix C). Three separate, semi-structured, face-to-face interviews were conducted separately with each participant in the teachers' classroom when children are not present. This quiet location was free from distractions. A key feature of a sensitive interviewer is stepping aside allowing the interviewee to guide the conversation (Corbin & Strauss, 2008).

Data Analysis

Data analysis was ongoing through the study as prescribed by Corbin & Strauss (2008). An observation sheet was used to answer question 1 to identify aspects of reading that were attended to by the teacher. The data were systematically and iteratively searched to identify patterns that described the ways that teachers used running records data to inform their instruction to answer question 2. Then, through this constant comparative process (Corbin & Strauss, 2008) patterns were grouped to best reflect the themes.

Definition of Terms

The following terms are defined for purposes of this study.

Authentic assessment: A type of assessment that seeks to address widespread concerns about standardized, norm-referenced testing by representing “literacy behavior of the community and workplace” and reflecting “the actual learning and instructional activities of the classroom and out-of-school worlds” (Harris & Hodges, 2005, p. 15).

Fluency: “The clear, easy, written or spoken expression of ideas” (Harris & Hodges, 2005, p. 85).

Reading comprehension: “The act or result of applying comprehension processes to attain the meaning of a graphic communication” (Harris & Hodges, 2005, p. 208).

Running records: “Running Records provide an assessment of text reading. They are designed to be taken as a child reads orally from any text” (Clay, 2013, p. 51).

Word recognition: “The process of determining the pronunciation and some degree of meaning of a word in written or printed form” (Harris & Hodges, 2005, p. 283).

Limitations

This study’s major limitation is that due to the methodological design and limited sample of only first-grade teachers and their students in two schools across two school districts in one part of the U.S., the results are not generalizable to all teachers, all students, or all settings. Additionally, the video recording devices that were present during the study in order to record the relevant teaching episodes may have impacted teachers’ or students’ behaviors.

Summary

Teachers use running records to help improve students’ reading and to determine next steps in learning for the students. When a teacher learns how to take a running record using the conventions developed by Dr. Marie Clay, it becomes easier over time so more effort can be put into working with students than documenting the reading.

The purpose of this study was to examine how running records inform instruction. This study focused on answering the following questions:

1. How do teachers use running records to identify students' instructional needs?
2. How are those needs addressed in subsequent instruction?

Researchers suggested that teachers should use running records (Bean et al., 2002; Clay, 2013; Mokhtari et al., 2010; Stafford, 2000), nonetheless, effectiveness studies about running records are limited. It is established that Reading Recovery and running record studies demonstrated the effectiveness of running records (Cassidy Schmitt, 2001; McGee et al., 2015), but the studies conducted on the use of running records to inform classroom instruction are few.

This study used a qualitative research design (Creswell, 2007). Data was collected from two separate schools in two different school districts. The districts are similar in that teachers use running records to inform instruction. The school districts vary in socio-economic status and racial composition of the student populations. Due to the small sample size, which is not representative of the U.S. or world, this study cannot be generalized to all first-grade settings.

CHAPTER TWO

REVIEW OF THE LITERATURE

Introduction

To frame this study, it is important to understand three bodies of research. First, I present a review of theoretical research on literacy processing theory. This theory is complex and based on neural network systems that work together in order to read and understand the text. Second, I present empirical research that shows how running records capture multiple aspects of a reader's processing system. Finally, I review the empirical research available about how teachers use running records to inform reading instruction.

Literacy Processing Theory

The brain has various working systems that make literacy processing possible (Clay, 2001). Clay (2001) described literacy processing theory as “assembling perceptual and cognitive working systems needed to complete increasingly complex tasks” (p. 270). These perceptual and cognitive working systems are the neural networks that are constructed by the reader to gain meaning from the message being read (Clay, 2001; Doyle, 2013; Rumelhart, 1994; Singer, 1994). The reader performs as an active participant, constructing meaning and using multiple sources of information during problem-solving (Clay, 2001; Rumelhart, 1994; Singer, 1994).

Clay's theory is based on the work of Singer (1994), who explained that perceptual systems include visual information, and cognitive systems include problem-solving information, which are used to make meaning. Both Singer (1994) and Clay

(1998, 2001) realized that readers make varied decisions while reading and follow different ways to successful reading outcomes. Singer (1994) affirmed that over a period of time readers assemble problem-solving systems that flexibly merge and are efficiently organized, which are referred to as working systems. When the working systems are efficient, the reader is proceeding in a fluent and proficient manner across text (Singer, 1994). Further, there is more than one way to attain the same level of achievement so the path to proficiency varies from reader to reader (Singer, 1994). When working systems are precise and operating together, the reader can attend to the meaning of the story (Singer, 1994).

Likewise, Clay was also informed by the work of Rumelhart (1994), regarding the many sources of information used such as sensory, syntactic, semantic, and pragmatic information that work together to assist with problem-solving when a reader understands what they are reading. Rumelhart proposed that "...the reading process is the product of the simultaneous joint application of all the knowledge sources" (1994, p. 878). The outcome of decision-making while reading is that readers quickly confirm or revise which leads to the construction of meaning in the story (Rumelhart, 1994).

Clay asserted that both Singer's and Rumelhart's theories could be used to understand what beginning readers do as they read, and were very valuable, because they described literacy as a complex process (2001). In Clay's view, neither theory gave reasons explaining the acquisition of early learning in the first years of school and she was not satisfied with the explanations regarding reading acquisition (2001).

Subsequently, Clay chose to investigate the observable behaviors of young children while

reading continuous text that reflected their literacy processing (Doyle, 2013). This research led to Clay's running record, which collected "detailed data on changes in the literacy behaviours of young children as they learn to read and write continuous texts over a period of time" (2001, p. 42). The running record is a way of capturing evidence of change over time in a child's reading processing system that is used by the teacher to inform instruction for the child (Clay, 2001). Further, Clay's constructivist lens viewed the learner as an active participant in learning while constructing ways to problem-solve (Askew, 2009).

Clay defines reading as "...a message-getting, problem-solving activity, which increases in power and flexibility the more it is practised" (2001, p. 1). Meaning involves conscious and unconscious attention to print while reading (Clay, 2001). When conscious attention is used, there is active monitoring of meaning and reading to make sense of the text and unconscious attention involves the neural networks and the engagement of a system that picks up information and makes decisions on the sources of information with visual information from print (Clay, 2001; Lyons, 2003). "Reading is a process by which children can, on the run, extract a sequence of cues from printed texts and relate these, one to the other, so that they understand the message of the text" (Clay, 1991, p. 22). The reader is using various types of information so that they can make a choice in order to problem-solve (Clay, 2013). Because the reader has limited knowledge, she attempts to use what she knows so that the sources of information selected fit best (Clay, 2013).

How Running Records Capture Reader Processing

What are Running Records?

To capture aspects of readers' processing systems, such as monitoring change over time in literacy behaviors, Clay developed an assessment recording system called running records. Doyle (2013) explained running records as "...an observational tool for collecting sequential, detailed accounts of what occurs as a child reads continuous text" (p. 638). A running record is a systematic procedure used to record reading behaviors to interpret how children interact with text, and provides a way to observe change over time in reading (Clay, 2001). Authentic assessments reveal a student's strength in reading, next steps for learning, and next steps for teaching (Clay, 2001; Ferguson, 2017) and can be very powerful if used this way (Valencia & Hebard, 2013). Hebert (2004) claimed that "...there is no better way to get into the head of a reader than the running record" (p. 32). Continuous progress can be measured when taking multiple running records over time and this will provide information of how the student is responding to teaching (Fountas & Pinnell, 2017).

As literacy assessment is perhaps one of the most important aspects of a teacher's job, running records can be powerful when taught to preservice teachers (Ferguson, 2017). The very best assessments must be used to guarantee that children become capable readers and running records are an important resource that teachers have available (Hebert, 2004). Afflerbach's (2016) stance concerning assessment is as follows, "*Assessment should produce information that is useful in helping students become better readers, and assessment should do no harm*" [italics in original] (p. 413-

414). Johnston submits that running records "...are, without a doubt, the single most useful technique for documenting early reading processes" (2000, p. ix). Clay (2013) stated, "*The prime purpose of a Running Record is to understand more about how children are using what they know to get to the messages of the text, or in other words what reading processes they are using*" [italics in original] (p. 56).

Clay used the term "an unusual lens" (2001, p. 42) to describe observational or research methodology data collection that demonstrated changes in reading continuous text over a period of time. A running record is a tool that is considered the unusual lens that Clay (2001) developed and applied to her research. The unusual lens captured emerging literacy behaviors of young children, how behaviors change over time, and how running records can assist the teacher in helping the student to become a more successful reader (Clay, 2001).

A teacher can spontaneously take a running record at any time because as long as a child has a book, a running record can be taken (Allington, 2009; Fountas & Pinnell, 2017; McKenna & Dougherty Stahl, 2015). There are no additional costs to the school district when a teacher takes a running record on a student's reading with pencil and paper being the only materials required. Clay (2013) clearly stated, "Any text, at any time, as and when appropriate, should be the aim" (p. 55) and claimed that the constraints of pre-printed running record sheets and photocopied reading materials limit observations because readers problem-solve in very diverse ways. Additionally, as calculating, analyzing, and interpreting running records follow a conventional format, it is important

that consistent conventions for recording and analyzing running records are used so that calculations and comparisons have meaning (Clay, 2013).

How are Running Records Used?

Fountas and Pinnell (2017) noted that Clay's running records could be used for many purposes. For example, running records can "assess text difficulty, group and regroup for instruction, select appropriate texts, inform the introduction of texts, inform teaching decisions during the reading of a new book, inform your teaching decisions after reading, inform the letter-word work after reading, monitor individual progress over time, assess the effectiveness of yesterday's teaching" (p. 258). It is a recording of how the reader interacted with text while reading and how the reader evolved and changed over a period of time (Clay, 2001; Watts-Taffe et al., 2012). Running records are used to analyze what children are doing while reading (Bean et al., 2002; Fitzharris, Blake Jones, & Crawford, 2008; Watts-Taffe et al., 2012). Excellent reading teachers use a range of assessments including running records to inform instruction (Minnick Santa et al., 2000). Running records as an assessment help teachers understand students' needs so adjustments can be made to instruction depending on how the student responds to the instruction (Clay, 2013). If used effectively, running records are an extremely valuable instrument to monitor children's reading (Clay, 2013; Fitzharris et al., 2008; Harp & Brewer, 2000).

Pressley et al. (2001) proposed that running records are used by teachers to teach for effective literacy instruction. In order to effectively support a child's literacy processing system, teachers need to know what children do as they read successfully and

when a child attempts to problem-solve in text (Clay, 1991). Inaccurate reading brings forth a way to analyze what children monitor and problem-solve while reading (Clay, 2001). Running records are the tool that could be used to document a reader's progress over time (Clay, 2013).

Running records can be used to assess how a child operates on continuous text and can be used to gather detailed data at selected intervals that documents a child's processing system while reading (Clay, 2001, 2013; Fountas & Pinnell, 2012; Johnston, 2000; Vanderburg & Stephens, 2010; Watts-Taffe et al., 2012). Clay purports, "It transmits a different kind of information from that provided by scores on phoneme, letter and word tests, or from comprehension questions. So, we get an alternative view of progress" (2001, p. 46).

To check on whether a child comprehends the story, a running record taken on instructional level texts can also be used (Clay, 2013). Running records offer a way to study a student's comprehension processes more than single-word assessments (Rathvon, 2004). Clay (2013) reminds teachers that questions vary from teacher to teacher and this is not a dependable way to measure comprehension. It is the conversation and discourse about the story that happens after the running record with the teacher and child that demonstrates a deeper comprehension (Clay, 2013). Talking to the child about the story after taking the running record leads to further conversation between child and teacher (Clay, 2013). Conversely, Burgin & Hughes (2009) concluded that running records measure reading comprehension and that understanding is through short retellings of the story.

Running records similarly capture information about letter and word knowledge. When using running records teachers can document what letter information the child used to solve words while reading (Clay, 2013; Fountas & Pinnell, 2017). Observing how readers use groups or chunks of letters left to right within words helps to identify how children break words apart while reading as well as what they use to help themselves (Clay, 2013). Teachers can also analyze running records to determine if a reader is using the sounds to help solve a word (Clay, 2013). This information can help the teacher to understand what sounds the reader knows, what sounds the reader does not yet know, or what confusions the reader has with looking at the letter and making the sound (Clay, 2013). This information can be used to help the teacher in helping the student. Running records likewise help the teacher to identify what high frequency words a child knows quickly or which words are not yet automatic (Clay, 2013). It also provides information as to visual detail of words and how the reader uses this information (Clay, 2013).

Moreover, while taking a running record, a teacher listens to how the reading sounds considering if the reading was phrased and fluent (Clay, 2013, Fountas & Pinnell, 2017). Phrasing refers to the reader grouping together the words that need to go together within the text, and fluency refers to speed of reading, as readers vary speed depending on the complexity of the text (Clay, 2005b). The prosodic features of reading, which refer to variations in rhythm, expression, pitch, loudness, tempo, intonation, stress, and juncture, are also important features when reading for phrasing in fast and fluent reading (Clay, 2005b). Clay asserted, “The aim is this: after a Running Record a teacher should be able to ‘hear the reading again’ when reviewing the record” (2013, p. 55).

What are the Benefits of Running Records?

As teachers become more proficient at taking running records and understanding the literacy processing of beginning readers, they will understand how children use what they know to gain meaning and problem-solve text (Clay, 2013). If used properly, running records are useful and have various purposes that challenge teachers to closely analyze a child's literacy processing system (Clay, 2013; Fountas & Pinnell, 2017; Ross, 2004).

“Taking running records of children's reading behaviors requires time and practice, but the results are well worth the effort” (Fountas & Pinnell, 2017, p. 257). While some teachers feel that running records are time-consuming, Hebert (2004) recommends a step-by-step approach. “If we are going to ensure that all children develop as proficient readers, writers, and thinkers, then we must utilize the very best assessments the world has to offer” (Hebert, 2004, p. 32). Her steps recommend that teachers learn:

- How to use the conventions for taking a running record,
- Have an area designated for assessment within the classroom that has all the necessary materials available,
- Take a running record on one child each day so that the volume of analysis is manageable.

If used appropriately, running records can measure what sources of information a reader attends to and how to use the information to inform instruction (Clay, 2001, 2013; Fawson, Ludlow, Reutzel, Sudweeks, & Smith, 2006). If running records are taken in a consistent manner, evidence can be documented on how the reader understands text and

uses information to problem-solve on text (Beatty & Care, 2009; Clay, 2013). Clay (2013) cautions teachers to be attentive to interpretations when taking and analyzing running records. Teachers have different theories about beginning reading and what is important so running records can be interpreted in different ways (Clay, 2013). Running records challenge teachers to look very closely at a child's literacy processing system and to think deeply about the progress that readers make over time (Clay, 2013). The running record acts as a tool for recording literacy changes in multiple ways because running records: (a) monitors change in the student's reading process; (b) documents what the reader notices; and (c) documents what the reader finds easy or confusing, which is information for the teacher to use when instructing the student (Clay, 2001).

Teachers learn to be sensitive observers when taking running records. Clay noted, "To use systematic observation the teacher has to set time aside from teaching to become a neutral observer" (2013, p. 2). A systematic observation requires the teacher to look more closely at the child's reading process than what they normally have time to do (Clay, 2013). This investment in systematic observation will help the teacher make better decisions to provide the best instruction to the students and provide information to administrators and parents. Clay (2013) concluded, "*In every way the information produced by systematic observation reduces our uncertainties and improves our instruction*" [italics in original] (p. 3).

How Teachers Use Running Records to Inform Instruction

Researchers have suggested that teachers should and do use running records as part of teaching practices (Bean et al., 2002; Clay, 2013; Mokhtari et al., 2010; Stafford,

2000), and have found that this is associated with teaching and school effectiveness and student achievement—even for struggling readers (Pressley et al., 2001; Ross, 2004; Stafford, 2000).

By observing change over time in students' reading, McGee et al. (2015) used varied theoretical perspectives, which included linguistic, metacognitive, and overlapping wave, to examine first-grade students' oral reading errors. The researchers examined the running records of first-grade students that were selected for Reading Recovery because they had the lowest reading and writing levels as compared to other first-grade students. The analysis focused on the students' errors at the point of difficulty while reading and looked at the strategic actions that the students used as the text became more complex over time. The researchers examined the strategic actions inferred from the errors and the change over time in attempts, problem-solving actions that demonstrated levels of sophistication, and the proficiency of the readers as they differed over time in their reading actions (McGee et al., 2015).

The initial data explored the individual actions taken by students at a difficulty and the sources of information used while reading, which were referred to as single actions when students made an error and continued to read (McGee et al., 2015). Since readers used multiple actions while problem-solving, a second analysis was conducted that looked at multiple attempts at the readers' errors, which included three or more attempts at an error (McGee et al., 2015). Therefore, the research that was conducted investigated both single and multiple actions taken on the part of the students while

reading text. Running records were examined to determine the types of actions taken at the point of difficulty (McGee et al., 2015).

The main results of the study indicated that students' errors at a difficulty were simple, single actions with no other attempt taken, or multiple actions were taken that were more complex and were in a sequence chain of actions (McGee et al., 2015). As indicated by McGee et al. (2015) the action chains included seven strategic actions: "monitoring, rereading, self-correcting, making multiple attempts, employing letter sounds and word parts to solve unknown words, determining when sounding-out attempts are good enough, and coordinating use of graphic and contextual information" (p. 289). Additionally, reading errors demonstrated change over time in the use of different sources of information as the text became more complex, increased use of graphic information or the use of both graphic and context information, and improvement in use of more sophisticated sources of information, which demonstrated that students increasingly became more effective problem solvers (McGee et al., 2015).

If running records are taken in a systematic way and teachers look deeply at the students' errors, evidence of what the student is learning or needs to learn may be evident (Clay, 2013). Understanding the students' errors helps to guide the child's approach to learning (Clay, 2001) and one of the best ways to understand students' reading is to understand the types of errors that students make (Watts-Taffe et al., 2012).

As students learn to read, there are possible changes from simple to complex processing that may be relevant through analysis of running records and a closer look at the students' errors (Clay, 2001). "A Running Record, expertly used by a trained teacher

and carefully interpreted, provides a valid view of change over time in children's reading" (Clay, 2001, p. 45). Clay (2001) asserted that teachers should look at the ways that readers' problem-solving on text and the inferences made by the teacher can be examined within the running records along with thorough systematic analysis of the running records (Clay, 2001).

"When we view reading assessment as an important teacher task, we may gather information that informs our instructional decision making" (Afflerbach, 2016, p. 417). Carefully examining students' errors, looking at the level of complexity within the text, and noticing all actions taken by the students as they read should provide further information to inform the teachers' instruction.

However, despite the benefits of using running records to inform instruction, studies about how teachers actually use running records to inform instruction as part of their regular classroom practices are scant. One study showed that classroom teachers used running records to inform differentiated instruction for word recognition, fluency, and comprehension (Watts-Taffe et al., 2012). Given the limited research on this topic, further exploration of teachers' use of running records to inform instruction is warranted.

Summary

Clay viewed the learner as an active participant while reading and one that is engaged using multiple sources of information in order to problem-solve so that they comprehend the meaning of the story. Clay developed running records as an assessment to record a child's reading behaviors and as a powerful tool if used appropriately to inform instruction. Teachers can take a running record at any time with any book at no

additional cost to the school. The benefit is the detailed information that the teacher documents as they follow the conventions for recording as the child reads. When data is used to inform instruction, changes occur in the reader (Clay, 2013). Allington (2009) stated, “Only when the assessment data produce positive changes in reading instruction can one say that the time spent in assessment was worthwhile” (p. 74). Running records informs instruction and can be used for many purposes and benefits such as selecting texts for children or showing change over time in a child’s reading. The purpose of running records is to serve as a record for the teacher to use to inform instruction, which benefits students (Clay, 2013). Clay (2013) proposed that running records guides teaching, assesses text difficulty, and captures reading progress.

The review of literature demonstrated the benefits of running records to inform instruction and that teachers should use and do use running records, however, studies about how teachers actually use running records are limited. Therefore, it is justified that additional examination on how teachers use running records to inform instruction is necessary.

CHAPTER THREE

METHODOLOGY

Introduction

Running records are a benefit because teachers can use running records to inform decisions about grouping students, selecting texts, and objectives for teaching (Fountas & Pinnell, 2017; Johnston, 2000). Pressley et al. (2001) found that the most effective classroom teachers used running records. Despite this, few studies specifically on the effectiveness of classroom teachers' use of running records to inform instruction have been conducted. Therefore, this study identified how teachers use running records to inform instruction. This chapter describes the research questions, design, setting, participants, data sources and collection, and analysis to address this issue.

Research Questions

The following research questions guided this study:

1. How do teachers use running records to identify students' instructional needs?
2. How are those needs addressed in subsequent instruction?

Research Design

This study used a qualitative research design that looked across multiple, purposefully selected cases (Creswell, 2007). Qualitative research is inquiry that explores social or human situations (Creswell, 2007). The purpose of qualitative research in this study is to move toward a clearer understanding of how teachers use running records to inform instruction and to learn how they use the running records to support

student learning. Qualitative analysis will describe the experiences of the teachers through observation, artifacts, video recordings, and interviews expressed by the participants (Corbin & Strauss, 2008). When a smaller sample is used, the researcher is able to procure much richer and deeper data that provide thick description of patterns within the study (Corbin & Strauss, 2008). The multiple, purposefully selected cases approach allows for schools and teachers to be selected because they can inform the research questions, and the participants have experience in what is being studied (Creswell, 2007).

Setting

The focal schools for this study were selected because (a) the administration and teachers in both schools are familiar with the researcher and a relationship was already established, (b) Reading Recovery was used as an early literacy intervention for the most struggling first-grade readers and writers in these schools, and (c) all the first-grade teachers have been trained to use running records as part of literacy assessment. The researcher had been working with Reading Recovery teachers in these schools for more than two years. Additionally, the researcher had been providing professional learning opportunities to classroom teachers in one of the schools. Using two school districts may provide a more diverse sample of cases of using running records.

The first school, Reynolds Elementary (all names are pseudonyms), was located in a Midwestern, middle socioeconomic status public rural elementary school situated in a small town. The elementary school is one of four in the school district along with one intermediate school, one middle school, one high school, and one alternative high school.

The district serves about 5,000 children in the community. In this elementary school, there are 393 students enrolled in kindergarten through fourth grade. Approximately 19% of students receive free or reduced lunch. The majority of families are Caucasian (92%). There are also African American (2%), Blended Race (2%), Latino (2%), American Indian/Alaska Native (1%), and Asian families (1%).

The second school, Hunter Elementary, was located in a Midwestern, low to middle socioeconomic status public suburban elementary school situated in a neighborhood. This is the only elementary school in the district, which along with one junior high school, one high school, and one alternative high school serves 684 children in the community. In this elementary school, there are 381 students enrolled in kindergarten through sixth grade. Approximately 83% of students receive free or reduced lunch. The school has a student population with Caucasian (79%), Latino (9.45%), Blended Race (5.51%), African American (4.99%), and Asian (1.05%) families. This school received additional support in literacy for the kindergarten through fourth grade teachers, and were selected because of past professional learning opportunities that the researcher separately conducted.

Participants

Four teachers were invited to participate in the study because they were (a) teaching first-grade in one of the two selected schools, and (b) had over two years of teaching experience. Three of the four teachers agreed to participate in the study. They were female, and had different levels of education and years of experience teaching.

Descriptions of each teacher's degrees, numbers of years teaching, number of years teaching first-grade, and other training attained are presented in Table 1.

Each focal teacher chose three first-grade students to participate -one high, average, and struggling reader per class; nine students in all. All nine students were granted parents' consent and provided their own assent to participate. Descriptions of each child's current reading achievement, age, gender, and race are presented in Table 2

Data Sources and Collection

The following data sources were collected: video recordings of brief initial interviews, video recordings of running record sessions, running record artifacts for each focal student, and video recordings of semi-structured interviews with focal teachers conducted later in the same classroom when the children were not present. Each of these is described in detail in the sections that follow.

Brief initial interview. A brief initial interview was conducted to identify demographic data for teachers and students. The brief interviews included the following questions:

- How many years have you been teaching?
- How many years have you been teaching first-grade?
- What educational degrees, certificates, or training have you completed?
- For the study, I would like to observe you conduct running records with -one high, average, and struggling reader – whom do you suggest?

Table 1 Information from the Brief Initial Interview

Teachers' Pseudonym	Years Teaching	Years Teaching First-Grade	Educational Degrees, Certificates, or Other Training
Brittney	5	4	<p>Bachelor's Degree in Elementary Education</p> <ul style="list-style-type: none"> - Major: Language Arts - Minor: Assessments <p>Training</p> <ul style="list-style-type: none"> - Instructional Consultation Team - Teachers College Reading Institute (Lucy Calkins) - Running Records - DRA
Renee	13	2	<p>Bachelor's Degree in Elementary Education</p> <ul style="list-style-type: none"> - Minor: Science - 21+ Educational Credits <p>Training</p> <ul style="list-style-type: none"> - Observations of Literacy in Classrooms - Observation of Colleagues - Running Records - Colleague Observations
Andrea	10	5	<p>Bachelor's Degree</p> <ul style="list-style-type: none"> - Early Childhood/ZA - Reading Endorsement <p>Master's Degree in the Art of Education (literacy focus)</p> <p>Training</p> <ul style="list-style-type: none"> - Running Records - Thinking Maps

Table 2 Student Information

Student's Pseudonym	Student's Classroom Teacher	Student's Reading Performance Level	Student's Age	Student's Gender	Student's Race
Lenny	Brittney	High	6 years 10 months	Male	White
Nolan	Brittney	Average	6 years 11 months	Male	White
Kelly	Brittney	Low	6 years 6 months	Female	White
Libby	Renee	High	7 years	Female	White
Jimmy	Renee	Average	7 years	Male	White
Annie	Renee	Low	6 years 5 months	Female	White
Mary	Andrea	High	6 years 3 months	Female	White
Charlie	Andrea	Average	6 years 1 month	Male	White
Elizabeth	Andrea	Low	6 years 6 months	Female	Black

Since a teacher's educational background and number of years of teaching experience may affect the use of running records, this information may inform the analysis of their use of running records for research questions 1 and 2.

Video recordings of running records sessions. Video recordings of running record sessions administered by the first-grade teachers were collected for three children across each of the three classrooms: nine sessions in all. The teacher took a running record on a book that was at the student's instructional level. This book was a new, unseen text that may reveal a certain level of reading achievement (Clay, 2013) and it was one that was not read previously because it is expected that the accuracy rate and reading fluency will be high on books that have been read previously (Fountas & Pinnell, 2017). This new, unseen text also revealed how teachers' recorded errors and how they used the information to inform instruction. The running record sessions included the teacher taking the running record while the student read the text as well as teaching the student after administering the running record. When the running record is completed, the teacher has a better understanding of how the student is responding to the teaching (Clay, 2013; Fountas & Pinnell, 2017). This will provide "...a good indication of how the student is taking on new behaviors and applying what he is learning to reading texts" (Fountas & Pinnell, 2017, p. 231).

Running record artifacts. Running records are the teachers' record of what was observed while the child was reading the text (Clay, 2013). These nine running record artifacts (one for each focal child) provided additional insight into the aspects of reading that the teacher attended to during the running record session (research question 2).

Semi-structured teacher interviews. At a planned time following each running record session, a semi-structured interview was conducted with the teacher; nine interviews in all. The purpose of the semi-structured interview was to explore how the teachers planned to use the running record to inform instruction. Each interview was recorded in a private area in the classroom when children were not present. Questions included:

1. What did you learn about the student's reading during the running record session?
2. How do you use this information?
3. What behaviors did you observe today in the running record that will lead to instruction in the next week?
4. Probing for more information included broad prompts, such as, "Tell me more about that" and "Anything else?"

Responses from question 1 were coded to cross-check the information gleaned from the video of running record sessions and artifacts used to identify aspects of reading that were attended to in each teachers' running record session (research question 1).

Responses from question 2 were used to answer research question 2: How are those needs addressed in subsequent instruction?

Data Analysis

To answer research question 1, an observation sheet was used for each session to identify which aspects of reading were attended to during that running record session.

The observation sheet is presented in Figure 1. Multiple data sources, including the video

recorded running record session, artifact, and teacher's response to semi-structured interview question 1, were examined for evidence of attending to each of the possible areas of reading on the observation sheet. Evidence from each source was recorded in a separate column on the observation sheet, so that it was possible to look across sources for multiple data points that provided evidence of a particular aspect of reading that was attended to (or not). This provided triangulation, to strengthen confidence in these findings.

Additionally, a database was created that catalogued the kinds of assessment data that were collected in each running record assessment session. Both the running record artifacts and videos of the running record sessions were used as data sources. Emergent coding and constant comparative analyses were used to identify categories that reflected the kinds of assessment data that were collected (See Table D1).

Finally, a database was created in which the researcher, who is also highly trained in running records analysis, identified all of each student's needs that could be gleaned from the assessment data that the teachers collected. Then, based on the running record session videos and interview videos, the researcher identified whether or not each teacher identified each of their students' needs in her own analyses (See Table D2).

To answer research question 2, emergent coding and constant comparative methods were used to systematically and iteratively identify patterns that described how they addressed each student's needs through instruction; then these patterns were organized into themes (Corbin & Strauss, 2008).

Summary

This study used a qualitative research design, using multiple cases (Creswell, 2007), to explore the following questions:

1. How do teachers use running records to identify students' instructional needs?
2. How are those needs addressed in subsequent instruction?

Participants included three first-grade teachers and nine students across two school districts. Data sources included video recordings, artifacts and semi-structured teacher interviews for each of nine running record sessions. An observation sheet was used to code the data to identify what aspects of reading teachers attended to during running record sessions. Then a database was created that catalogued the kinds of assessment data that were collected in each running record assessment session. Finally, a database was created to identify all of each student's needs and whether or not each teacher identified these needs in her own analyses. Emergent coding and constant comparative analyses were used to code the data to identify patterns and themes that reflected how teachers addressed students' needs through instruction.

CHAPTER FOUR

FINDINGS

Introduction

In the following sections, the major themes and subthemes related to the findings for each of the two research questions are presented. First, themes that describe how teachers use running records to identify students' instructional needs are presented. Second, themes that reflect how students' needs are addressed in instruction are portrayed. Each theme is supported by purposefully selected evidence from the data that illustrate the nuance within the theme across teachers and children. Conclusions based on these findings are presented in Chapter Five.

How Teachers Use Running Records to Identify Students' Instructional Needs

Four themes emerged that describe how teachers in this study used running records to identify their students' instructional needs (research question 1). First, data collected during running records assessments were inconsistent for each teacher and across teachers. Second, while collecting the running records assessment data, teachers provided instruction when assessing the students. Third, teachers' quality of in-the-moment analyses of assessment data varied. Fourth, teachers were able to identify most of their students' needs evidenced by the data collected, after being given some time for more in-depth analysis of the assessment data.

Data Collected During Running Records Assessments Were Inconsistent

The three teachers' collection of assessment data varied both across running record sessions for the same teacher, and also across different teachers' running record sessions. Teachers collected data for word recognition, fluency, and comprehension. In the following sections, examples of how data collection varied are presented.

Word recognition and fluency. Teachers collected data regarding word recognition and fluency inconsistently across sessions. For example, Miss Renee used conventions for recording text in one of her sessions, but not the other two (despite their being miscues in these sessions). Mrs. Andrea calculated the number of errors and word accuracy rate for two of her sessions, but not for the third. Also, she made notes about fluency for one session, but not the others.

Likewise, how data were collected across teachers also varied. For example, while Mrs. Andrea and Ms. Brittany always recorded conventions of text, Miss Renee did not consistently do this. Similarly, Mrs. Andrea was the only teacher to make notes regarding fluency; Miss Renee and Ms. Brittany did not. Further, while Miss Renee and Mrs. Andrea always calculated the self-correction ratios, Ms. Brittney did this two of the three times.

In sum, the collection of word recognition data is inconsistent, and often incomplete. That is, data that should be collected is often not collected, and thus unlikely to be analyzed. Further, assessment of fluency rarely occurs, and thus it is unlikely that fluency needs can be adequately identified based on the data collected.

Comprehension. Teachers' assessment of comprehension after reading the book varied both across each teacher's running record session, and also across all three teachers' sessions. For example, Mrs. Andrea asked her low-performing reader, Elizabeth, no comprehension questions after the running record session. She asked her average reader, Charlie, his favorite part of the book. For her high-performing reader, Mary, she asked for a retelling and an inference question. So, across administrations, Mrs. Andrea's assessment of comprehension was inconsistent—and in one case did not occur at all.

Likewise, there were differences across teachers' comprehension questions after the running record sessions. While Ms. Brittany asked no comprehension questions of her low and average readers and just a retelling for her high-performing reader, in contrast Miss Renee asked her low, average, and high-performing students to retell the story, make connections, and favorite part of the book. She only asked her average-performing student to respond to a critical thinking question.

In sum, there were vast differences in the extent to which teachers assessed comprehension across running record sessions in this study. Further, the general trend seems to be to ask lower-performing readers fewer questions, with the exception of Miss Renee who asked more questions of her low- and average-performing students. Finally, if any higher order questions were asked, it was typically only one question type (e.g., critical thinking), rather than multiple types (critical thinking, inference, and connection). Thus, comprehension data collection is often incomplete and less than robust.

Teachers Provided Instruction During Assessment

All three teachers integrated some form of instruction into their assessment sessions, as evidenced when looking across teacher-student dyad's observation sheets (see Figure 1 for an example). This occurred in four ways: (1) activating students' prior knowledge before reading, (2) providing the story gist before reading, (3) guiding students to preview text before reading, and (4) prompting and providing feedback for word recognition strategies. As the examples that follow illustrate, the extent to which teachers engaged in instruction and the level of instructional support that they provided to different children varied across teachers and the children with whom they worked.

Activating students' prior knowledge before reading. All three teachers activated students' prior knowledge before they read the story. For example, before Miss Renee had Libby read *No Running*, they engaged in the following exchange:

Miss Renee: What happens when you run? When it is all rainy and stuff?

Libby: You can slip and fall.

Likewise, before reading with Annie, she discussed relevant prior knowledge:

Miss Renee: Oh, have you ever had blackberries before?

Annie: Shakes head no.

Miss Renee: No? They are kind of like raspberries but they're black. They're so yummy and so good.

Similarly, Ms. Brittany elicited her student's prior knowledge before reading:

Ms. Brittany: We are going to read a story call *Boots and Shoes*... What do you know about boots and shoes?

Kelly: Well, I know about shoes is, I know, tennis shoes.

Ms. Brittany: Like about tennis shoes.

Kelly: Some kinds of boots [showing her shoes].

These kinds of conversations before reading helped their students activate prior knowledge.

Providing the story gist before reading. All three teachers provided a brief gist for the story before students began reading. For example, when introducing *We Go Out*, before Elizabeth read it, Mrs. Andrea explained, “It’s about two kids and a mom who are going out to different places around their neighborhood.”

Similarly, before Jimmy read *The Lion and the Rabbit*, Miss Renee explained, “There is a meaning behind this book, and I hope you get it.” Not only did this provide a gist, but it also set a purpose for reading. Both are forms of instructional support.

Likewise, before Nolan read *Catch the Spider*, Ms. Brittany explained the gist of the story, “In this story the spider is on the loose and they are going to try everything to try to catch it.” As did Miss Renee, Ms. Brittany also set a purpose for Nolan’s reading, “So, do you think that they are going to catch the fast spider?”

All three teachers clearly provided instructional support through their explanations of the gist of each story. In some cases, they also set a purpose for the student’s reading, which is a comprehension monitoring strategy.

Guiding students to preview text before reading. All three teachers guided their students to take a picture walk before reading, and asked them questions to guide their previewing as they did this. The depth of this previewing discussion varied across

teachers. For example, Ms. Brittany's previewing discussion with her student Kelly was brief--just two conversation turns that occurred in just under 2 minutes.

Ms. Brittany: Alright, I am going to have you take a sneak-peak. So we're just going to look at the pictures, tell me what's happening but we're not going to start reading the words yet, okay?

Kelly: Okay. I see those shoes. I see some rain boots, ballet shoes, some other boots, cowgirl shoes, tennis shoes, and some other boots. And, then I see somebody fishing out there in his rain boots. And then I see shoes and he's climbing up the thing, this rope and then beach shoes and then on rain boots. And this little kid is looking at something like feathers. Okay, I see some cowgirl boots and then I see ballet shoes. And then I see some ski boots and some tennis shoes. And this person is skiing and these kids are running. And then I see this little girl is at the shop into new shoes, I think.

The interactions between Miss Renee and her student Libby were more elaborate--there were 11 conversation turns in nearly one minute.

Miss Renee: Let's just do a little quick walk. Teacher opens book and says: Whoop, that looks like fun. His name is Bill and he's hanging out with his friends right here, right? And, my gosh, look, I see little kids right there but look at these big kids. What do you think they are doing?

Libby: They're getting ready to dive in the pool.

Miss Renee: You think they're getting ready to dive in the pool? Aww, why do you think that little boy is crying?

Libby: 'Cuz she might be pushing 'em.

Miss Renee: He might be pushing him, right? And there's a big splash. What is she doing?

Libby: Talking to the kids.

Miss Renee: Uh-oh, look what happens. Does she look happy or sad?

Libby: Mad.

Miss Renee: She looks mad. Oh, does he look mad?

Libby: Uh-huh [Shakes head yes.]

Miss Renee: So, let's start reading, *No Running*. Let's see what happens with Bill.

Miss Renee guided her student using questioning more so than did Ms. Brittany, even though Libby was one of her highest performing readers. This shows differences in the two teachers' approaches not based on their students' needs. However, Miss Renee does adjust her support based on her students' needs, as evidenced by the increased level of support that she provides for Annie, one of her lowest performing readers--15 conversation turns in just over 1 minute.

Miss Renee: No, they are kind of like raspberries, but they're black. They're so yummy and so good. Now, the first thing we are going to do is to look at... You know about Baby Bear, right? Mother Bear, Father Bear. You've read those books, haven't you?

Annie: [Does not respond to the teacher's question] Who is this?

Miss Renee: I don't know who it could be. Baby Bear, Mother Bear, Father Bear. Who do you think it could be?

Annie: Father Bear, Mother Bear, and Baby Bear.

Miss Renee: Oooh! What do they have?

Annie: Baskets.

Miss Renee: And what do you think these are? [Teacher points to the picture.]

Annie: Blackberries.

Miss Renee: Oh my gosh, my mouth is watering. Ahh, look at what they're doing. What are they doing? They're putting the blackberries in where?

Annie: In the baskets. [Points to the basket.]

Miss Renee: Yes. Uh-oh, What's Baby Bear doing?

Annie: Eating.

Miss Renee: He's eating. Baby Bear reminds me of me. Uh-oh, I wonder where Baby Bear is?

Annie: Down. Eating.

Miss Renee: You think so? [Teacher turns the page.] Okay, I am going to stop right there. We don't want to ruin the ending, okay? So let's read this book, *Blackberries*, okay?

All of these examples of prompting and guiding students to preview are forms of instruction especially in the cases of Miss Renee's more in-depth guidance for previewing texts.

Prompting and providing feedback for word recognition strategies. One teacher provided support and feedback for her low and middle performing students' use of word recognition strategies during their running record reading. She did not prompt her highest performing student to do this, because that student did not have any word recognition difficulties.

Annie: [Reading] She blows away the-- [stopped reading].

Miss Renee: Don't forget to look at the picture. It gives you a hint. Look at those words.

Annie: Carrots?

Miss Renee: Carrots? [Pointed to the word.]

Annie: Oh.

Miss Renee: What word is that? Remember that a pirate says--

Annie: Arrr!

Miss Renee: Arrr. Can you get it from there? [Teacher pointed at word.]

[Read for her.] Garden, garden.

Annie: She blows away the garden.

Miss Renee: Good.

In this excerpt, Miss Renee not only prompts Annie to use multiple word recognition strategies (picture clues, letter clues), but she also provides phonics information (/ar/) and reads a word for her (garden).

When working with her middle-performing student, Jimmy, she did not prompt for word recognition strategy use, but she did provide him feedback on his word recognition accuracy when he had some difficulty recognizing the word “after.”

Jimmy: The deer ran and ran and the lion ran [pause] /f/ [sounding out]
 a-f-t [then chunking] af-ter [finally reading the correct word] after.

Miss Renee: Good.

Annie’s word recognition or comprehension might have been lower without Miss Renee’s additional support.

Teachers’ Quality of In-the-Moment Analyses of Assessment Data Varied

Immediately after the running record session, each of the three teachers attempted to identify an essential need for immediate instruction using the same reading passage as was used for assessment. The “clearest, easiest, most memorable examples” are desirable to support faster reading progress (Clay, 2005a, p. 23). The quality of teachers’ in-the-moment analyses of running record data to inform this immediate instruction varied.

While two teachers were able to address an essential need for their students based on their in-the-moment analysis of the running record event, one teacher focused only on comprehension.

Mrs. Andrea and Ms. Brittney both identified a focus for teaching with each of their students that addressed an essential need. For example, when Mrs. Andrea assessed

Elizabeth she noticed that an essential need for instruction was visually checking a word, as evidenced by her lack of attention to the visual information in the word in the running record. Likewise, when Ms. Brittany assessed Lenny, she realized that one of his greatest needs was segmenting the word, as evidenced by his unsuccessful attempt at chunking “detergent” during the running record.

Teachers Were Able to Identify Most Students’ Needs Evidenced by the Data

When a teacher learns to take a running record and to efficiently analyze the child’s reading, the time invested will benefit the teacher. This will be an advantage because their knowledge will be reinforced and strengthened. Some teachers take and analyze many running records and at times work beside a colleague to discuss the analysis of what the child is doing that is helpful or what the child is not yet doing. Twenty-one years of experience taking and analyzing running records has challenged me to think deeply about how to use the information to inform my instruction as I work with Reading Recovery or classroom students. Working beside Reading Recovery and classroom teachers has also provided me genuine learning experiences to support their learning and to help strengthen their knowledge. The learning is reciprocal while working together.

Many years of reviewing my own running records and the running records of other teachers has taught me to assess a running record and to tentatively make a decision regarding the student’s instructional needs at that moment based on the evidence from the running record. Additional conversations with teachers about running records has also helped to develop and enhance my understanding about instructional decisions while

working with the teachers. When the teachers in this study had time to review and analyze the running records, they were able to talk about what the child can do and to make some decisions as to where they need to focus teaching in a later lesson.

Each running record was carefully reviewed to identify the instructional needs of the nine students. Closely looking across each running record, 41 instructional needs were identified. In the teacher interviews, after time for deeper analysis of the data, teachers identified 38 of those needs. That is a need identification rate of 92%. Of the needs that were not identified, all three were word recognition needs.

Further, when teachers were given the time to completely analyze their running records, they sometimes realized that they had missed essential opportunities for teaching immediately after the running record. This occurred in one of Mrs. Andrea's sessions with her student Charlie. Mrs. Andrea had focused only on comprehension after her running record with Charlie, but during the semi-structured interview she talked about the cues that he attended to and realized that she should have focused on word recognition, as it was a more essential teaching point. She said, "I did notice all his errors...but I guess I need to dig deeper and have him look at the whole word, and I would have him check it, run his finger along to make sure the whole word looks right."

In sum, teachers were able to identify most of their students' needs after being given more time to analyze their running records data.

How Students' Needs Were Addressed in Instruction

All instruction provided by teachers immediately after the running record sessions either focused on word recognition or comprehension. Two themes emerged related to

this instruction. First, there was a very limited range of focal teaching points for this instruction. Second, the instructional activities varied. These themes address research question 2--how students' needs were addressed in instruction.

Limited Range of Focal Teaching Points

Across the running record sessions, there was little variation in the focal teaching points chosen by teachers, despite variation in students' needs. For example, across the nine students, there were five distinct word recognition needs (one-to-one-match, using visual clues in a word, chunking, using meaning cues, and using all cuing systems in combination), and six distinct comprehension needs were identified (self-monitoring meaning of the story, retelling, favorite part, connection, critical thinking, and inference). (See Table D2). Despite this, all three sessions that had word recognition teaching points focused on chunking. Likewise, all five comprehension teaching points focused on retelling. (Note that one session was ended because the text was too difficult, and no teaching point was provided in that session.)

Instructional Activities

During word recognition instruction, teachers tended to engage in chunking the word for the student instead of guiding the student to chunk the word themselves. An example of this occurred as Ms. Brittany tried to teach Nolan to chunk the name *Andy*.

Ms. Brittney: So, this page is the first time that we came to the little boy's name and we hadn't heard the little boy's name yet. So, is there anything in that word that we can use to help us figure that out?

Nolan: [Only pointed to the word. No talking.]

Ms. Brittney: [Teacher's finger is in the book and she provides the first chunk of the word for Nolan] *And--* So, we see the word [and] in there. So, we see a part in there that we know. So, *and*. And then we can keep going. *And--*

Nolan: *-dy*.

Ms. Brittney: *Andy*.

In this example, the teacher did not name the strategy that she wanted Nolan to use. Second, she pointed to and provided the first chunk of the word for Nolan, rather than asking him to point to find a familiar chunk in the word himself. Third, she did not invite him to chunk the work again on his own.

Likewise, the retelling instruction provided by teachers elicited information, which is essentially assessment, not instruction. Strategies for improving retelling, such as looking back at the book, using story structure to facilitate recalling important aspects of the text, were not taught by the teachers. This is illustrated in the following excerpt of interactions between Mrs. Andrea and her student Mary.

Mrs. Andrea: Can you tell me what happened in this story?

Mary: Um, the mama's and the fox wanted to eat, and Mrs. Fox wanted to go get a hen, but Mr. Fox wanted to go get, um, a, um, a... But, Mr. Fox couldn't see any rabbit so he got a hen for the cubs and the mom, and then they were all happy.

Mrs. Andrea: How did he get the hen?

Mary: He faked that the fox was dead.

Mary answered the questions, but never learned how to engage in a more successful retelling without the teacher's questioning.

In another example, Ms. Brittany did not allow the student to look in the book when retelling the story.

Ms. Brittany: We're going to keep the book closed and I want you to tell me from the beginning what happened.

Lenny: Well, first, first baby /p/...they were, they went fishing, then, then they saw something strange on the rock, rock. Then third they paddled to it. Fourth they, fourth they, they, they told them that, that why are they, why, why they're, why, why are, they are on there, why is, why was he on there and where, and where he got it, and where he did, and where, and where he landed.

The retelling did not make sense. Then, Ms. Brittany asked, "What happened after that?"

Lenny: Then, and then they, then they swam back to get Mrs. Polar Bear and Grandpa Walrus. Then Grandpa Walrus and Mrs. Polar Bear got, got him, tried to get him back to shore and then Little Penguin and Baby Seal got their tooth brushes. And then, the oil was gone and finally he was back to shore. That's all I know.

Ms. Brittany did not respond to Lenny's response with any feedback to help him learn more about what a retelling should entail or how to engage in it.

Summary

Teachers use the running records to identify students' instructional needs, and in this study six themes emerged that describe how running records are used. First, the data that teachers collected during the running record assessments were inconsistent as some teachers collected more details than others did. Second, during the assessments teachers provided instruction when they should have only observed and assessed students. Third, teachers attempted to identify essential needs in order to help students after taking the running record, however, in-the-moment analysis of running records were varied. Fourth, after having time to review the assessment data, teachers were able to identify most of their students' needs. Fifth, teachers addressed a limited breadth of needs (just chunking and retelling) despite broader student needs being evident. Finally, the quality of instructional activities varied.

After the running record assessment, teachers immediately instructed students in only two ways and the teaching was limited despite variations in the students' needs. Teachers focused only on word recognition or the comprehension needs of the students. Additionally, the instructional activities varied. Because of the quality of instruction, learning opportunities for the students were limited.

CHAPTER FIVE

DISCUSSION

Introduction

The findings from this study are discussed in four ways. First, in order to support the teachers' needs in the classroom, suggestions are made that may refine, enhance, and improve the teachers' instruction. Second, how the present study extends current knowledge in the field about how first-grade classroom teachers use running records for assessment and to guide instruction is discussed. Third, implications are drawn from the findings and discussed. Fourth, the study's limitations and suggestions for future research are discussed.

Refining of Teachers' Instruction

Some suggestions to strengthen the teachers administration of running records, thus improving in-the-moment teaching, analysis of the running record, and teaching at a later time follows. First, it is important for the teachers to be neutral observers while taking the running record. Teachers should not interfere with the student as they are reading the text. This means that the teacher provides only the title of the book and then takes the running record. It is after the student's reading that the teacher may interact with the student, discussing the meaning of the story and if applicable a teaching point such as chunking words or using multiple cues.

Second, over time and with support, teachers may learn how to identify and prioritize the student's essential needs after administering the running record assessment.

For example, when Miss Renee assessed Jimmy she identified retelling and discussing his favorite part in the book as a need, but this was non-essential compared to other needs such as using multiple cues to correctly identify words. The later was more essential because without more accurate word recognition, comprehension was unlikely to improve. Likewise, when she assessed Annie she chose to focus on teaching retelling, making connections, and discussing her favorite part in the story. Attention to comprehension after reading the book is important but it was also a non-essential focus compared to Annie's much greater need for learning to chunk words to improve her word recognition accuracy. Without improving her word recognition, Annie was unlikely to be able to improve her comprehension. Teachers can strengthen their understanding of determining the instructional needs of students and prioritizing those needs by working with a teacher who is very familiar with running records. This discussion will be beneficial to both teachers.

As the literacy processing system of a beginning reader develops, teachers need to change their teaching decisions and to adjust their understanding and theory to meet the needs of the student (Schwartz, 2005). For instance, when Annie read "carrots" for the word "garden" the teacher pointed to the word then tried to make a connection through a sound analysis ultimately telling the student the word. After the running record, the teacher could have returned to this error and said, "That makes sense, check to see if it looks right." What the teacher would be doing is prompting for monitoring instead of doing the work for the student and providing an opportunity for the student to use this strategy at another time. The child should be allowed the opportunity to make the error

and be given time to notice their error independently. If the student does not notice, they do not have a reason to search for additional information (Schwartz, 2005).

Teaching for and fostering self-monitoring would be an instructional need that would benefit students while reading. Schwartz (2005) proposes, “Readers use searching strategies to generate an initial attempt to read a word and monitoring strategies to evaluate the attempt and initiate further searching if needed” (p. 439). Self-monitoring is the cornerstone to literacy learning (Schwartz, 1997).

Extension of Knowledge in the Field

This study extends knowledge in the field in four important ways. First, the study’s findings concerning what kinds of assessment data teachers collected, and that first-grade classroom teachers collected data inconsistently across their running record sessions, extend previous research in two ways. First, while two previous studies identified the kinds of data that teachers collected during running records (Beatty & Care, 2009; Watts-Taffe, et al., 2012), neither explored whether the data was collected consistently or not, and one study identified the kinds of comprehension data that were collected (Watts-Taffe., et al, 2012). Another study examined what aspects of word recognition teachers in grades 1-3 attended to in their analysis, and showed that their attention to various aspects of word recognition strategies varied, which aligned with the findings in the present study (Fitzharris, et al, 2008). However, that study did not explore teachers’ attention to comprehension. Thus, both the more specific analysis of all aspects of assessment data that were collected (presented in Table D1), and the analysis of the

consistence with which teachers collected this data, extend the field's understanding about how first-grade classroom teachers use running records.

Second, this study identified teachers' use of instruction during running records assessment, thus showing that teachers regularly blur the line between assessment and instruction. The novelty of this finding may be because this is a fine-grained analysis of what is occurring during teachers' running record events. While previous studies have identified some aspects of teachers' analyses of running records, such as the students' using meaning, language structure, and visual cues (Beatty & Care, 2009), or their attention to miscues, accuracy rate, and comprehension (Watts-Taffe, et al., 2012), they had not systematically analyzed all the teacher behaviors in these events. The more fine-grained analysis in the present study, and the findings that the line between assessment and instruction is often blurred, are important contributions to our understandings about how running records are used in first-grade classrooms.

Third, the findings that first-grade classroom teachers' quality of in-the-moment analyses of assessment data varied, that teachers were able to identify most of their students' needs, and that there was a limited range of focal teaching points all extended the existing literature, as studies of classroom teachers' use of running records had not previously explored these issues. However, some of these findings do cohere with previous research that more broadly found that effective teachers quickly adjust instruction to meet the needs of their students (Griffith, 2017), and researchers' suggestion that teachers' moment-by-moment decisions are critical as they work with students (Schwartz, 2005).

Fourth, the findings that the instruction teachers provided was varied coheres with previous research on classroom teaching practices. For example, teachers' use of assessment techniques to elicit retelling (instead of teaching students to generate a retelling) aligns with the classic study by Durkin (1978-1979), which also showed that practices addressing comprehension tended to be assessment rather than instruction.

Implications

There are three important implications for practice based on the findings of this study. First, given the finding that all teachers' collection of running record assessments were inconsistent and incomplete and often blurred the line between assessment and instruction while administering the running record assessment, it seems that the teachers' role needs to be clarified while taking a running record (i.e., to assess) and also exactly what to assess (i.e., what data should always be collected). Clarifying teachers' role and goals during running records might help to better align their actual practice with Clay's intention for the teacher to be neutral while observing and recording what the student does without interacting or interrupting (Clay, 2013). It is expected that if teachers engage in assessment (and not instruction) during running records, and that they collect data in a comprehensive and consistent way, then the reliability and validity of their results could be improved (Clay, 2013). Further, given that teachers identified most of their students' needs based on the data they collected, it is possible that improved assessment data collection techniques could have a very positive impact on most of the students' needs being identified by teachers based on running records.

Second, given that quality of in-the-moment analyses of assessment data varied, there seems to be a need to observe teachers' practices and provide coaching as needed to improve their ability to identify essential teaching points to address immediately after the running record. If teachers understand the errors that a student makes and what the most essential teaching point is, they may be better able to provide effective instruction for the student immediately after the running record (Clay, 2013).

Third, given that word recognition instruction was infrequent, and often ineffective, and comprehension instruction was also ineffective and typically focused only on retelling or literal comprehension, there seems to be a clear need for professional development to improve these teachers' instructional methods. Effective professional development should focus on active teaching, assessment, observation, and reflection embedded in collaborative and collegial learning environments (Darling-Hammond & Richardson, 2009).

Limitations and Future Research Suggestions

There are three major limitations of this study. First, there was a limited sample of only three first-grade teachers and nine of their students in two schools across two school districts. Therefore, the results are not generalizable to all teachers, all students, or all settings. Future research might address this limitation by expanding the number of participants, schools, and school districts. Future research with larger samples that include a broader demographic representation would allow for further exploration into running records and how they inform instruction.

Second, this study only looked at teachers' running record sessions and instruction with each student at one point in time. This did not allow for exploring how teachers' analysis and instructional decisions might have changed over time. Future research might explore this issue.

Third, no professional development was provided in response to teachers' difficulties administering, analyzing, and instructing students based on running records. Future research might explore how professional learning opportunities for teachers, based on identifying teachers' needs for further development of their analysis of running records, and determining the most powerful teaching point for each student may enhance teachers whose background knowledge on running records is limited.

Reading Recovery and Classroom Instruction Differences

Clay's research guides all teachers who want to be careful observers of young children as they are learning to read and write (2013). It is highly recommended that teachers discuss the running record assessments of their students with colleagues so that they can examine and enhance their literacy understandings, as they will find more value in meaningful conversations (2013). Reading Recovery teachers and the work of classroom teachers may differ in the following ways. First, Reading Recovery teachers take running records every day with each of their students during one-to-one daily lessons. Classroom teachers may take running records less often on the same student during guided reading lessons. Second, the Reading Recovery teachers' introduce and support each student during the first reading of the story and then they take a running record on the text the following day. In this study, classroom teachers assessed students

with an unseen text (one that was not previously read). The classroom teachers appeared to be blending guided reading instruction with running record assessment as they were introducing the text by providing a gist, supporting the student's knowledge activation while they looked through the book, and then finally taking the running record while sometimes teaching the student during the reading. Third, Reading Recovery teachers quickly assess the student's understanding of the story and may focus on a teaching point after the reading. However, classroom teachers may feel the constraint of time and may not use the information from the running record right away while choosing to use this information for planning instruction the next day. Fourth, because of the opportunity to administer the running record each day to multiple students, Reading Recovery teachers may find it easier to be neutral observers during administration of a running record as they do not interfere or interrupt the student while they are reading independently. During the running record assessment, the classroom teachers were aligning what they knew with their classroom context and some were assessing and instructing the students during the running record.

Overall, the background, environment, and circumstances between Reading Recovery and classroom teachers may be the reason for the observed differences.

Summary

Reading Recovery teachers and classroom teacher's work with running records may differ. First, Reading Recovery teachers take running records every day on the same students and classroom teachers do not. Second, Reading Recovery teachers interact with a book that the student previously read, and in this study classroom teachers used an

unseen text. Third, Reading Recovery teachers quickly assess comprehension and may address a teaching point after the reading and classroom teachers may feel the constraint of time. Fourth, Reading Recovery teachers may find it easier to be neutral observers, and classroom teachers in this study took what they knew from their classroom context, which lead to assessing and instructing during running record administration.

This study extended the knowledge in the field by contributing to the understanding of how first-grade teachers use running records in the following ways. First, the kinds of assessment data teachers collected is inconsistent. Second, teachers blur the line between assessment and instruction. Third, the quality of in-the-moment analyses varied. Fourth, teachers identified most of the students' needs when given additional time for analysis. Fifth, teachers addressed a very limited breadth of teaching points (i.e., chunking and retelling), despite assessment data identifying broader needs. Sixth, the instruction that teachers provided could be strengthened so that it may impact each student's learning.

There were three implications for practice based on the findings in this study. First, if the teachers understood their role in the collection of data (i.e., assessment), and the data that they should collect, the reliability and validity of the results may improve. Second, some teachers need professional development to support improved in-the-moment teaching decisions. Third, teachers need professional development to improve the effectiveness of their instructional methods.

There were three major limitations and related future research suggestions for this study. First, the sample was limited, and thus is not generalizable. Future research may

include a broader demographic sample. Second, running record sessions were observed only at one point in time, so future research might explore running record sessions at multiple points across time to explore potential changes. Third, professional development was not provided to teachers after the administration of the running records, but future research might explore the effects of such professional development.

APPENDIX A

APPROVAL LETTER FROM THE INSTITUTIONAL REVIEW BOARD FOR THE
PROTECTION OF HUMAN SUBJECTS



Institutional Review Board for the Protection of Human Subjects

DATE: October 10, 2017

TO: Joanne LeBlanc
FROM: Oakland University IRB

PROJECT TITLE: Investigation of running records and how teachers use the reading information to inform instruction

REFERENCE #: 646356-1
SUBMISSION TYPE: New Project

ACTION: APPROVED
APPROVAL DATE: October 9, 2017
EXPIRATION DATE: October 8, 2018
REVIEW TYPE: Expedited Review

REVIEW CATEGORY: Expedited review category # 6 and 7
IRB MEETING DATE: October 26, 2017

Thank you for your submission of New Project materials for this project. The Oakland University IRB has APPROVED your submission. This approval is based on an appropriate risk/benefit ratio and a project design wherein the risks have been minimized. All research must be conducted in accordance with this approved submission. The submission includes the following approved documents:

- IRB Application
- Adult Consent Form, version 10/9/2017 (found under "Board Documents")
- Parental Permission Form, version 10/9/2017 (found under "Board Documents")
- Child Assent Form, version 10/9/2017 (found under "Board Documents")
- Data Collection Form (Figure for Dissertation)
- Interview Questions

This submission has received Expedited Review based on the applicable federal regulation.

Please remember that informed consent is a process beginning with a description of the project and assurance of participant understanding followed by a signed consent form. **You must use the IRB-approved, date-stamped Adult Consent Form, Parental Permission Form and Child Assent Form, each with a version date of 10/9/2017, in the recruitment and consent of all research participants.** Informed consent must continue throughout the project via a dialogue between the researcher and research participant. Federal regulations require each participant receive a copy of the signed consent document.

Please note that any revision to previously approved materials must be approved by this office prior to initiation. Please use the appropriate revision forms for this procedure. Do not collect data while the revised application is being reviewed. Data collected during this time cannot be used.

All UNANTICIPATED PROBLEMS involving risks to subjects or others (UPIRSOs) and SERIOUS and UNEXPECTED adverse events must be reported promptly to this committee. Please use the appropriate reporting forms for this procedure. All FDA and sponsor reporting requirements should also be followed.

All NON-COMPLIANCE issues or COMPLAINTS regarding this project must be reported promptly to this office.

This project has been determined to be a Minimal Risk project. Based on the risks, this project requires continuing review by this committee on an annual basis. Please use the appropriate forms for this procedure. Your documentation for continuing review must be received with sufficient time for review and continued approval before the expiration date of October 8, 2018.

Please note that all research records must be retained for a minimum of three years after the completion of the project.

Please retain a copy of this correspondence for your record.

If you have any questions, please contact Stephanie Edwards at (248) 370-4329 or sedwards@oakland.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Oakland University IRB's records.

APPENDIX B
BRIEF INITIAL INTERVIEW QUESTIONS

Brief Initial Interview Questions

1. How many years have you been teaching?
2. How many years have you been teaching first-grade?
3. What educational degrees, certificates, or training have you completed?
4. For the study, I would like to observe you conduct running records with one high, average, and struggling reader – whom do you suggest?

APPENDIX C

SEMI-STRUCTURED TEACHER INTERVIEW QUESTIONS

Semi-Structured Teacher Interview Questions

1. What did you learn about the student's reading during the running record session?
2. How do you use this information?
3. What behaviors did you observe today in the running record that will lead to instruction in the next week?
4. Probing for more information – “Tell me more about that” and “Anything else?”

APPENDIX D
TABLES USED FOR CODING

Table D1 Kinds of Assessment Data Teachers Collected During Running Record Sessions

Teacher	Student	Kinds of Assessment Data Collected	Category of Assessment Data (C=comprehension, W=word recognition, F=fluency)
Brittney	Kelly	Recorded Accuracy Rate	W
Brittney	Nolan	Recorded Accuracy Rate	W
Brittney	Lenny	Recorded Accuracy Rate	W
Renee	Jimmy	Recorded Accuracy Rate	W
Renee	Libby	Recorded Accuracy Rate	W
Renee	Annie	Recorded Accuracy Rate	W
Andrea	Elizabeth	Used Conventions for Recording Oral Reading	W
Andrea	Charlie	Used Conventions for Recording Oral Reading	W
Andrea	Mary	Used Conventions for Recording Oral Reading	W
Brittney	Kelly	Used Conventions for Recording Oral Reading	W
Brittney	Nolan	Used Conventions for Recording Oral Reading	W

Table D1 Continued

Teacher	Student	Kinds of Assessment Data Collected	Category of Assessment Data (C=comprehension, W=word recognition, F=fluency)
Brittney	Lenny	Used Conventions for Recording Oral Reading	W
Renee	Jimmy	Used Conventions for Recording Oral Reading	W
Renee	Annie	Used Conventions for Recording Oral Reading	W
Brittney	Nolan	Recorded Error Ratio	W
Brittney	Lenny	Recorded Error Ratio	W
Andrea	Charlie	Recorded Number of Errors/Running Words	W
Andrea	Mary	Recorded Number of Errors/Running Words	W
Brittney	Nolan	Recorded Number of Errors/Running Words	W
Brittney	Lenny	Recorded Number of Errors/Running Words	W
Renee	Jimmy	Recorded Number of Errors/Running Words	W
Renee	Libby	Recorded Number of Errors/Running Words	W
Renee	Annie	Recorded Number of Errors/Running Words	W
Brittney	Kelly	Recorded Number of Errors/Running Words	W

Table D1 Continued

Teacher	Student	Kinds of Assessment Data Collected	Category of Assessment Data (C=comprehension, W=word recognition, F=fluency)
Brittney	Lenny	Self-Correction Ratio	W
Renee	Libby	Self-Correction Ratio	W
Renee	Annie	Self-Correction Ratio	W
Brittney	Nolan	Self-Correction Ratio	W
Renee	Jimmy	Self-Correction Ratio	W
Renee	Annie	Asked for a Connection	C
Renee	Jimmy	Asked for a Connection	C
Renee	Libby	Asked for a Connection	C
Renee	Jimmy	Asked for Critical Thinking Question	C
Andrea	Mary	Asked an Inference Question	C
Renee	Annie	Asked for a Favorite Part of the Text	C
Renee	Jimmy	Asked for a Favorite Part of the Text	C
Renee	Libby	Asked for a Favorite Part of the Text	C

Table D1 Continued

Teacher	Student	Kinds of Assessment Data Collected	Category of Assessment Data (C=comprehension, W=word recognition, F=fluency)
Andrea	Charlie	Asked for a Favorite Part of the Text	C
Andrea	Mary	Asked for a Retelling of the Text	C
Brittney	Lenny	Asked for a Retelling of the Text	C
Renee	Annie	Asked for a Retelling of the Text	C
Renee	Jimmy	Asked for a Retelling of the Text	C
Renee	Libby	Asked for a Retelling of the Text	C
Andrea	Charlie	Recorded notes about fluency	F

Table D2 Comparison of Needs Identified by Researcher vs. Teachers Based on Running Record Sessions

Student	Needs Identified by Researcher based on Running Record Session, Artifacts and Videos	Areas of Need (W=word recognition, C=comprehension F=fluency)	Teacher	Did Teacher Identify this Need during the Running Record Session or Subsequent Interview?
Jimmy	Respond to critical thinking questions	C	Renee	Yes
Mary	Respond to an inference question	C	Andrea	Yes
Annie	Make a connection to text	C	Renee	Yes
Jimmy	Make a connection to text	C	Renee	Yes
Libby	Make a connection to text	C	Renee	Yes
Charlie	Tell favorite part of the story	C	Andrea	Yes
Annie	Tell favorite part of the story	C	Renee	Yes
Jimmy	Tell favorite part of the story	C	Renee	Yes
Libby	Tell favorite part of the story	C	Renee	Yes
Mary	Retell story	C	Andrea	Yes
Lenny	Retell story	C	Brittney	Yes
Annie	Retell story	C	Renee	Yes
Jimmy	Retell story	C	Renee	Yes
Libby	Retell story	C	Renee	Yes
Kelly	Self-monitor meaning of the story	C	Brittney	Yes

Table D2 Continued

Student	Needs Identified by Researcher based on Running Record Session, Artifacts and Videos	Areas of Need (W=word recognition, C=comprehension, F=fluency)	Teacher	Did Teacher Identify this Need during the Running Record Session or Subsequent Interview?
Lenny	Self-monitor meaning of the story	C	Brittney	Yes
Elizabeth	Self-monitor meaning of the story	C	Andrea	Yes
Mary	Self-monitor meaning of the story	C	Andrea	Yes
Kelly	Use all cuing systems combination	W	Brittney	No
Lenny	Use all cuing systems combination	W	Brittney	No
Elizabeth	Use all cuing systems combination	W	Andrea	Yes
Nolan	Use all cuing systems combination	W	Brittney	Yes
Kelly	Chunk to accurately decode word	W	Brittney	Yes
Lenny	Chunk to accurately decode word	W	Brittney	Yes
Annie	Chunk to accurately decode word	W	Renee	Yes
Jimmy	Chunk to accurately decode word	W	Renee	Yes
Elizabeth	Adhere to on-to-one correspondence	W	Andrea	Yes
Kelly	Reread at miscues	W	Brittney	Yes
Nolan	Reread at miscues	W	Brittney	Yes
Elizabeth	Use visual cues to accurately decode word	W	Andrea	Yes

Table D2 Continued

Student	Needs Identified by Researcher based on Running Record Session, Artifacts and Videos	Areas of Need (W=word recognition, C=comprehension, F=fluency)	Teacher	Did Teacher Identify this Need during the Running Record Session or Subsequent Interview?
Charlie	Use visual cues to accurately decode word	W	Andrea	No
Charlie	Use visual cues to accurately decode word	W	Andrea	Yes
Mary	Use visual cues to accurately decode word	W	Andrea	Yes
Kelly	Use visual cues to accurately decode word	W	Brittney	Yes
Kelly	Use visual cues to accurately decode word	W	Brittney	Yes
Annie	Use visual cues to accurately decode word	W	Renee	Yes
Annie	Use visual cues to accurately decode word	W	Renee	Yes
Jimmy	Use fluent phrasing	F	Renee	Yes
Libby	Use fluent phrasing	F	Renee	Yes
Kelly	Use fluent phrasing	F	Brittney	Yes
Nolan	Use fluent phrasing	F	Brittney	Yes

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