

ON THE RECORD: EXPLORING READING RECOVERY TEACHERS' REPORTED  
BELIEFS ABOUT AND USES OF RUNNING RECORDS

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## **DEDICATION**

This dissertation is dedicated to my former Reading Recovery students who inspired me to ask endless questions and ponder the many possible answers to each of them.

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## **ABSTRACT**

### **ON THE RECORD: EXPLORING READING RECOVERY TEACHERS' REPORTED BELIEFS ABOUT AND USES OF RUNNING RECORDS**

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The purpose of this study was to explore Reading Recovery teachers' beliefs about and uses of running records. Reading Recovery teachers were chosen as participants in this study due to their extensive training and daily use of the tool. Running records were selected as the object of this study for several reasons that include (a) usefulness in monitoring beginning reading development, (b) flexibility to use with any text, (c) complexity in analyzing the data, and (d) wide use among teachers. Although widely used, little is known about teachers' actual use of classroom assessments, including running records.

A questionnaire was created and given to Reading Recovery teachers from eight sites during their scheduled professional development. Reading Recovery teachers were found to hold positive beliefs about running records' roles before, during, and after Reading Recovery lessons. Assumptions about Reading Recovery teachers' uses of

running records were confirmed in that they use them to (a) guide teaching, (b) assess text difficulty, and (c) capture progress. Although participants varied in their success of implementing the program, no statistically significant differences were found among selected demographics to inform why success varied among participants.

This study helps to fill an important gap in the literature on classroom assessments in reading. It is hoped that the results of this study will initiate a conversation as to the value of running records as well as how to improve their use and implementation so that more students can be provided with excellent early literacy instruction that meets their needs.

## **CHAPTER ONE**

The purpose of this study was to explore Reading Recovery teachers' beliefs about and uses of running records in helping them individualize instruction with their first-grade students. A running record is an assessment tool used by teachers to record students' oral reading behaviors. This study helps to fill an important gap in the literature on classroom assessments in reading. Running records were selected due to their flexibility (Clay, 2000; Johnston, 2000) and wide use as an assessment tool in primary grades (Baumann, Hoffman, Duffy-Hester, & Ro, 2000; Bean, Cassidy, Grumet, Shelton, & Wallis, 2002). Reading Recovery teachers were chosen as a result of their expertise and daily use of the tool (Gallant & Schwartz, 2010; Lyons, 2003).

In this chapter, I describe the importance of fostering literacy development early in schooling, the roles assessment plays in building this foundation, along with an explanation of the gap in the literature that currently exists on how teachers use classroom assessment tools. This is followed by an introduction to one performance-based assessment tool for reading called running records, the focus of this investigation. Running records were developed by Marie Clay, a New Zealand psychologist, and are used daily in the program she created called Reading Recovery. A detailed description of the Reading Recovery program, the context of this study, is provided. The chapter concludes with a list of the study's research questions and important terms.

## **Background**

Each year millions of children enter through school doors for the first time. In the United States, this rite of passage usually occurs sometime during a child's fifth year. Each of these children carry more than just a backpack with them on the first day. They also bring the collection of their experiences to date, which helps shape how they view and understand the world. Educators commonly refer to these collections as prior knowledge. The impact that prior knowledge has on instructional practice is great (Dochy, Segers, & Buehl, 1999). Because no two students are exactly the same, student differences should be acknowledged and instruction should be based upon student needs (Clay, 1998; Connor, Morrison, Fishman, Schatschneider, & Underwood, 2007; Smith, 2002). Classroom assessments can be used to determine student needs and to help plan for effective instruction.

One of the most rigorously assessed education constructs in schools today is reading. The fundamental role that reading plays in so many school experiences helps to explain the interest in monitoring students' reading progress. Considered to be a basic life skill, the ability to read aids both individual and societal goals (Anderson, Hiebert, Scott, Wilkinson, & The Commission on Reading, 1985; Lyon, 2001; Reschly, 2010). Studies of students who experience early reading difficulties have shown that these students' struggles remain stable throughout their school careers (Cunningham & Stanovich, 1997; Hernandez, 2011; Juel, 1988; Shaywitz et al., 1999). What does not remain stable, however, is the achievement gap between struggling readers and their

more proficient classmates, which widens with each progressing year. Reschly (2010) wrote:

As students progress through levels of education, proficiency in reading becomes increasingly important as a means of garnering new knowledge; students who do not have sufficient skills are often unable to keep up with course content and expectations, leaving them to fall further and further behind their peers. It is also believed, however, that difficulties learning to read affect students' engagement, motivation and connections to school (Guthrie & Wigfield, 2000; Klem & Connell, 2004; Snow et al., 1998), contributing to the gradual process of withdrawal that precedes later dropout (Finn, 1989). (p. 68)

Swanson (2012) projected that, for the class of 2013, 1.1 million students “will not graduate with a diploma. That amounts to more than 6,000 students lost each school day, or one student every 28 seconds” (p. 25). Hernandez (2011) found that struggling readers “represent more than three fifths of those who eventually drop out or fail to graduate on time” (p. 3). Decisions by students to cut their school careers short impact more than just opportunities for jobs; it impacts the society as a whole as these individuals are more likely to need government assistance, abuse substances, and have criminal records (Balfanz, Bridgeland, Bruce, & Fox, 2012; Chapman, Laird, & Kewal-Ramani, 2010; Reschly, 2010).

**Preventing reading difficulties.** The good news is that reading difficulties are preventable. The National Research Council Committee on Preventing Reading

Difficulties in Young Children studied “how reading develops and how its development can be promoted” (Snow, Burns, & Griffin, 1998, p. 2). They determined:

The majority of reading problems faced by today’s adolescents and adults are the result of problems that might have been avoided or resolved in their early childhood years. It is imperative that steps be taken to ensure that children overcome these obstacles during the primary grades. (Snow et al., 1998, p. 5)

The word *imperative* communicates the urgency with which educators should work when teaching literacy habits and skills in the primary grades. Goodwin (2012) shared this urgency when he compared reading difficulties to “many forms of cancer: relatively easy to treat if detected early, but more and more difficult to remedy if allowed to persist” (p. 80). From its study of reading development and promotion, the National Research Council concluded that the best way to prevent reading difficulties was to provide students with excellent instruction beginning with excellent preschool experiences (Snow et al., 1998). Clay (2005a) agreed and suggested three steps to preventing difficulties in literacy to be (a) having good preschool experiences, (b) having a good kindergarten and first-grade curriculum taught by well-trained teachers, and (c) providing access to early intervention for the lowest performing students.

Although reading researchers agree on the importance of the early identification and treatment of reading difficulties, they do not always agree on the approach to teaching young children who experience difficulty when reading. Disagreements concerning the best way to teach beginning reading can be traced back to the late 1700s when Samuel Heinicke argued against the spelling method of teaching reading (Graves &



Dykstra, 1997). More modern challengers of school methods include Rudolf Flesch (1955) and Jeanne Chall (1967) whose comments against basal readers resulted in the United States Government funding the First-Grade Studies. The First-Grade Studies hoped “to settle once and for all which method of beginning reading instruction worked best” (Pressley, Allington, Wharton-McDonald, Block, & Morrow, 2001, p. 11). The results of the First-Grade Studies did not provide the definitive answer to the best method of instruction; instead, it found that the impact of programs was dependent on the context and the teacher (Pressley et al., 2001).

The “it all depends” finding of the First-Grade Studies had an important impact on how reading researchers approached future studies, shifting their focus away from methods and onto contexts (Pearson, 1997, p. 429). Dykstra (1968), an author of the First-Grade Studies, encouraged this shift. In a summary article, he wrote, “Future research should center on teacher and learning situation characteristics rather than method and materials” (Dykstra, 1968, p. 431). Reading researchers heeded this advice for about 20 years until “politics and alarmist interpretations of test scores” drove researchers back to ask which best method is best to teach beginning reading (Pearson, 1997, p. 431). The results from these new studies have come to similar conclusions: context and teachers matter. In *Becoming a Nation of Readers*, the writers concluded:

Based on what we now know, it is incorrect to suppose that there is a simple or single step which, if taken correctly, will immediately allow a child to read.

Becoming a skilled reader is a journey that involves many steps. Similarly, it is unrealistic to anticipate that some one critical feature of instruction will be

discovered which, if in place, will assure rapid progress in reading. Quality instruction involves many elements. Strengthening any one element yields small gains. For large gains, many elements must be in place. (Anderson et al., 1985, p. 4)

More than a decade later, Lyon (1997) stated, “We have learned that no single method, approach, or philosophy for teaching reading is equally effective for all children” (para. 22). That same year, Graves and Dykstra (1997) reflected on their work in the First-Grade Studies in a piece they titled “Contextualizing the First Grade Studies: What is the best way to teach children to read?” The article ended with this summary:

The First-Grade Studies did not, of course, answer the question posed in our title. We now know, almost certainly better than we did 30 years ago, that the question has no simple answer, and is itself too simple. Still, it is in many ways very close to the question that many of us in reading education hope to answer. (Graves & Dykstra, 1997, p. 344)

Clay (1998) titled one of her books on early reading *By Different Paths to Common Outcomes*, providing insight into why one-size-fits-all curriculums do not result in success for all students. In this book, Clay (1998) informed her readers that “if children are to achieve common outcomes after two or three years of school it will be necessary to recognize that they enter school having learned different things in different ways in different cultures and communities” (p. 1). In other words, one of the key reasons that one-size-fits-all teaching does not work is because prior knowledge matters. Connor, Morrison, Fishman, Schatschneider, and Underwood (2007) expanded this

thought stating that “the efficacy of any particular instructional practice may depend on the skill level of the students. Instructional strategies that help one student may be ineffective when applied to another student with different skills” (p. 464). So how do teachers discover what students know? The answer is assessment.

### **Reading Assessment**

Pellegrino, Chudowsky, and Glasser (2001) remind educators of the practical purpose for assessments: to monitor student learning so that instruction can be improved. It is easy to lose sight of the practicality of assessment while working in the “Age of Accountability” where student performance is often tied to high stakes. Although many types of assessments are used in education, each of these assessments is united by three common goals in that they (a) attempt to estimate student knowledge, (b) incorporate an observation of student performance, and (c) provide a method to interpret the results (Pellegrino et al., 2001).

The Buros Institute of Mental Measurements (2014), an organization that provides lists of tests with reviews of these measures, currently lists 167 different assessments that measure competencies and attitudes towards reading. With so many options, how do states, schools districts, schools, and teachers choose assessments? They must match the assessment with their belief system. All assessments are created “based on a set of scientific principles and philosophical assumptions, or foundations” and these “foundations influence all aspects of design and use from content, format, scoring, reporting and use of the results” (Pellegrino et al., 2001, p. 20).

Therefore, assessments can serve to inform stakeholders of the foundations that educators view a construct, such as reading. Afflerbach and Cho (2011) provide a series of illustrations of how different views of reading influence assessment choices. They explain that if the goal of reading is thought to be one of “verbatim recall,” then assessment would match this by having students read a text aloud for accuracy (p. 490). On the other hand, if the goal of reading is thought to be “literal understanding,” then multiple choice questions may be an appropriate method of assessment (p. 490). This study was conducted with the belief that reading is a complex problem-solving process through which a reader tries to construct meaning while reading text. As a result, performance-based assessments of reading, like running records, are valued.

**Classroom assessment of reading.** Assessments chosen and used by teachers are referred to as classroom assessments. One purpose of reading assessment in the classroom, especially in the primary grades, is to help teachers identify how to foster students’ ability to read increasingly difficult texts with greater independence (Fountas & Pinnell, 1999). Classroom assessments can be classified as being either summative or formative. The purpose of summative assessment is to summarize student achievement, which has a relatively passive effect in that it reports but does not try to improve learning (Sadler, 1989). In contrast, the purpose of formative assessment is to make judgments about student work, which has an active effect in that the judgment results in the teacher trying to improve student achievement (Sadler, 1989). Roskos and Neuman (2012) cleverly label formative assessment as a “Gap Minder” explaining that its purpose “is to identify the gap between where students are and where they need to go in their reading

development. The gap, of course, varies from student to student, with very real consequences for differentiating instruction” (p. 535).

Teachers who use formative assessment often embrace Vygotsky’s (1978) theory of cognitive development, theory of instruction, and zone of proximal development of learning believing that if they know where students are, then they can scaffold instruction to where they need to be (Afflerbach & Cho, 2011). Teachers of reading who hold these views see reading as a complex activity, not a set of skills to be mastered, and choose performance assessments that allow for observation of students participating in authentic tasks (Afflerbach & Cho, 2011). A common performance assessment used with beginning readers is to observe them reading a text aloud. During this reading, teachers pay careful attention to students’ deviations from the text, believing that there are reasons for these errors and that if these reasons can be figured out, then instruction can be planned to enhance achievement (Clay, 2000; Goodman, 1965; Goodman, Watson, & Burke, 1987). One popular oral reading assessment that helps teachers approach reading in this light is a running record. A running record allows teachers to observe students’ oral reading behaviors of text and to use this information to match students with books, group students with like needs, and plan for differentiated instruction (Fountas & Pinnell, 1999).

### **Running Records**

Running records were developed in a research setting by Marie Clay (1966) to help her record observations of young children reading. Clay found the tool so useful that she incorporated its use into the daily lesson framework of her intervention program

for low-progress first graders called Reading Recovery. Clay (1979) stated that running records are “similar to Goodman and Burke’s miscue analysis (1972) but it is more adapted to the teacher’s need in day-to-day activities of the classroom, particularly those who teach young children” (p. 17). Unlike miscue analysis (Goodman & Burke, 1972), which requires a tape recorder, prepared script, and a long analysis process, materials for Clay’s running records are a piece of paper, a writing utensil, and a text for a student to read. The ability to take a running record on any text makes it more flexible and practical to use than miscue analysis.

**Taking a running record.** A running record is a recording of oral reading taken by a teacher trained in systematic observation using standardized methods. Clay recommends that running record training be conducted in about three workshop sessions that cover observing, recording, and interpreting the records (Clay, 2013). A running record is administered in a one-to-one setting that “should be as relaxed as sharing a book with a child” (Clay, 2013, p. 54).

The first step of the running record process is to carefully select a text that is close to the student’s instructional level. An instructional level text falls in the ideal range from which to teach; it is neither too easy nor too hard for the student to read (Clay, 2000). A teacher will not be able to confirm if the text selection fell in this range until after the running record is complete. If this is the student’s first encounter with the text, the teacher should supply a book introduction, providing the student with a hint of what the book will be about and setting him or her up for a successful first read. If the chosen

text is a familiar read, then the teacher may begin the assessment by showing interest in the text and inviting the student to read it aloud to him or her.

The second step of the running record process is for the teacher to record the student's behaviors while he or she reads aloud from the text. If it is the first time the teacher and student are working together, the teacher may inform the student that he or she will be writing some things down during the reading (Clay, 2013). During the assessment, the teacher sits beside the student, who holds the only copy of the text that is shared. Once the reading begins, the teacher becomes a neutral observer to the child's behaviors and does not interrupt or teach during the assessment. There is skill involved in the record taking process, as the teacher must multitask by following along in the text, while observing the child, and also making accurate notations. Clay (2013) acknowledged the learning curve that is involved in taking running records and stated, "At first, the easy-to-notice things are recorded; with practice it becomes easy to record more" (p. 55). Indeed with practice, teachers learn to note additional information, such as student comments about the text and behaviors such as pointing or taking their eyes off the text. These comments are helpful to record as they provide the teacher greater evidence from which to form a current theory about the student's learning strengths and needs.

Clay (2013) cautions teachers against using a pre-printed page of text or tape recording the reading to analyze later. Pre-printed text pages limit the available room that teachers have to record all the behaviors that occur, and tape recordings limit analysis to just sounds and language. Although running records can be taken on a blank

piece of paper, many teachers prefer using a standardized form for this assessment (see Appendix A). The standardized form aids in analyzing and recording the data of a completed running record. Clay (2013) identified 14 standard conventions that teachers must learn to accurately take a running record. These conventions are described in Table 1. Once a student has completed the oral reading, the teacher may use the information gathered to immediately provide a teaching point of the reading or to save this opportunity until after the data has been scored and interpreted.

Table 1

*Running Records Standard Conventions*

Behavior	Explanation
Accurate text reading	Checkmarks grouped as in the text
Wrong response	Word student said is written
Attempts	All are recorded including sounds and partial words
Self-correction	Incorrect response(s) written followed by SC
No response	Dash written
Insertion	Word said written over dash
Stops reading	Teacher tells child word, indicated by marking a T
Asks for help	Indicated with A
Prompted to try	YT (You Try) or TTA (Try That Again)
Repetition	R (May have subscript to indicate number of times)
Rereading	Arrow drawn indicating how far back the child went



Spelling words	Capital letters written
Sounding out words	Letters or sounds written with dashes between
Directional attack	Arrows showing how the child moved through text

---

*Note.* Adapted from Clay, 2013.

**Scoring the running record.** The scoring of the running record is usually done in the quiet moments of a teacher's day. To score the record, the teacher needs the running record along with a copy of the text that was used. If not completed during the oral reading, the scoring process begins by the teacher writing the book text underneath each error or attempt the child made. Next the teacher tallies the deviations from the text classifying them as either errors or self-corrections. These tallies are then used to quantify the results of the running record so that the teacher can determine the error ratio (total errors/total words), the accuracy rate ( $100 - \text{total errors/total words} \times 100/1$ ), and the self-correction rate (total self-corrections/total errors + total self-corrections) (Clay, 2013). With the scoring complete, the teacher can use the accuracy rate calculated to evaluate the book choice.

If the student read the text selection at 95% accuracy or above, it is considered easy for the student (Clay, 2013). Easy texts provide few opportunities for teaching as students make very few errors while reading. As a result, easy texts are considered to be at a student's independent reading level, meaning that they do not need support to read these texts. Easy books are great for students to read. They encourage reading stamina, comprehension, and fluency. When the running record accuracy rate falls in the easy

range, this informs the teacher that the student is ready to read text at an increased level of difficulty and opportunities for this can be planned.

An instructional reading level is obtained when the student's accuracy rate falls in the 90% to 94% range (Clay, 2013). This level is considered ideal for instruction, as texts are deemed not too easy and not too hard. Errors made provide windows into the student's processing skills, and teachers can use these data to help move the child forward in his or her learning. When the running record accuracy rate falls in the instructional range, this informs the teacher that a good text selection was made and additional opportunities to read similar books with support are planned.

Finally, an accuracy rate of 89% or below is considered the frustration level for the student (Clay, 2013). These texts are too hard for the student to read even with support. Reading comprehension and often motivation suffers greatly at this level. When the running record accuracy rate falls in the frustration range, this informs the teacher to provide the student with easier texts.

Teachers who use running records as a summative assessment often stop analysis after categorizing the accuracy rate. The goal of using a running record in this manner is to report on the reader's instructional text level at the time of the assessment. This is often done at the end of the year to determine if the reader has met the grade-level benchmark set by the school district. The intent in administering the assessment is not to inform instruction but to report on progress (Sadler, 1989).

Teachers interested in using the running record as a formative assessment continue their analysis of the running record further. The final, and often neglected, step

in running record assessment is interpretation. This is where the teacher digs deeper to analyze why the student may have made each error and self-correction and uses a summary of these findings to form a tentative theory of the student's reading processing (Clay, 2013).

**Interpreting the running record.** Interpretation begins with reflecting on the errors made by the student. The importance of this task stems from the belief that errors do not happen at random. As Johnston (2000) explained, "If you can figure out the reason, then you know where to best use your instructional expertise and how to avoid confusing the student" (p. 1). For this analysis the letters M, S, and V are placed near each error in the error column if using the standardized form. Then the teacher, with the text for context, does his or her best to determine "What led the child to do (or say) that?" (Clay, 2013, p. 71). Circles are placed around the reading cues believed to be used.

The M in the analysis stands for meaning. If this is circled, this indicates that the error made sense in the story at the point of the error (Clay, 2013). The S represents syntax. If this is circled, this indicates that the error sounded right at the point of error (Clay, 2013). Finally, the V signifies visual cues. If this is circled, the error made looked similar to the word found in the text (Clay, 2013). As readers get more proficient, their errors become more advanced and increasingly begin to incorporate all three sources of information.

If the student self-corrected an error, this is analyzed separately. The letters M, S, and V are added to the self-correction column of the standardized form, and only the additional information believed to have encouraged the self-correction is circled (Clay,

2013). Self-corrections show evidence that the student is monitoring while reading, a good first step in becoming an effective problem solver. With the errors and self-corrections further analyzed, the teacher looks across the running record for a pattern of response. Sometimes it is helpful for teachers to count up how many times a reader used meaning, syntax, and visual cues in their errors and self-corrections. With this information obtained, a teacher writes a summary sentence of the information the students used and neglected during the running record (Clay, 2013). Other notations the teacher makes at this time are cross-checking and directional movement notes (Clay, 2013). With final analysis complete, a teacher is ready to plan for future instruction for the student that is based on evidence of known needs collected through systematic observation.

**Why study running records?** There are several reasons why running records were chosen as the focus for this investigation. First, it is an assessment tool that monitors beginning readers' development. Providing students with a firm foundation in literacy on which to build is critical to their future success. As noted earlier, studies of students who experience early reading difficulties have shown that these students' struggles remain stable throughout their school careers (Cunningham & Stanovich, 1997; Hernandez, 2011; Juel, 1988; Shaywitz et al., 1999). As a result, primary teachers need to be knowledgeable and diligent in monitoring students' progress, and running records can help in this endeavor. Clay (2000), the creator of running records, stated there are three purposes for using running records: (a) to guide teaching, (b) to assess difficulty, and (c) to capture progress (p. 4). Far too often the first purpose, to guide teaching, is

ignored. Studying and reporting teachers' uses of running records to guide instruction may encourage more teachers to do the same, resulting in more effective use.

A second reason for choosing running records as the focus for this study is the flexibility of their use (Clay, 2013; Johnston, 2000). Once trained, teachers can use the procedures with any student, using any text, with just a piece of paper and a pencil. This flexibility allows running records to be used with ease by classroom teachers as either a formative or a summative assessment tool using any materials from their classrooms.

A third reason for choosing running records as the focus for this study is their complexity. Although running records require very primitive materials, the information a teacher can gain from using them is quite complex. It is the responsibility of the teacher to process and reflect on the data collected in order to translate it into a plan of action. Johnston (2000) makes this powerful statement about running records: "They are, without a doubt, the single most useful technique for documenting early reading processes. Having said that, however, I must point out that the recording system itself is only useful in the hand of an informed teacher" (p. ix).

Running record data can be interpreted both quantitatively and qualitatively. As part of the running record training process, teachers are taught how to interpret the results both ways. This being said, teachers bring their prior knowledge, theories of learning, and theories of teaching to these training sessions. These factors impact what they choose to attend to in interpreting the data (Clay, 2013). Teachers who focus on accuracy, therefore, often choose to interpret the assessment purely quantitatively by counting the number of errors and translating this into a percentage. On the other hand, teachers who

see reading as a process may choose to interpret the assessment purely qualitatively by focusing on the behaviors of what the student did or said at the point of error. Although teachers are instructed to combine both the quantitative and qualitative information into their interpretations, no one knows for sure what teachers actually do, what they actually value, and what role these decisions play on student learning.

The final reason for choosing running records as the focus for this study is that they are widely used. Bean, Cassidy, Grumet, Shelton, and Wallis (2002) surveyed 1,517 reading specialists who were members of the International Reading Association about their assessment use. Ninety-nine percent of these specialists reported that they perform assessment duties some of the time or daily. When asked to describe their assessment practices, “observations were used as a primary tool often (79%), and running records were identified as another important tool (62%)” (Bean et al., 2002, p. 739). Classroom teachers also use running records, although it is unclear what percentage of teachers this might be. When Baumann et al. (2000) surveyed 1,207 kindergarten through fifth-grade teachers, use of running records was among the top three assessment practices they reported that contributed to instructional decisions in the classroom. What is known is that there is a group of teachers who use running records extensively and daily. These teachers supply daily one-to-one tutoring for the lowest performing first graders in their schools through the intervention program called Reading Recovery.

### **The Reading Recovery Program**

The Reading Recovery Program is the context of this study. The foundation of the Reading Recovery program can be traced to doctoral student Marie Clay’s inquiry

into whether the process of learning to read and write could be seen going astray close to the onset of instruction (Clay, 1966). For one year, Clay observed 100 five-year-old New Zealand students' reading and writing behavior throughout their first year of school. As a result of this research, Clay reported on "the different paths of progress of high, high-middle, low-middle and low-achieving groups, and drew attention to striking differences in learning opportunities and patterns of behavior" (Ballantyne, 2007, p. 13). One and two years later, Clay followed up with 82 of these 100 students by obtaining their standardized test scores. "The follow-up data showed that the paths of progress established in the first year of school predicted where children would be 2 and 3 years later" (Ballantyne, 2007, p. 13). As a result, Clay began to envision a way to change the path of struggling first-year readers through the development of an individualized reading program.

In 1976, Clay focused on instructing struggling readers in a one-to-one setting in order to determine what type of instruction might help them become successful readers. This research study grew from just two researchers to seven within one year. Four years after the study, they had helped to train 100 Reading Recovery teachers in New Zealand. The success of the program prompted researchers in both Australia and the United States to ask, "Could what worked in New Zealand be replicated in another country?" (Clay, 2007, p. 22). In 1983, Australia was the first country to begin replicating the Reading Recovery program in their country. Researchers at The Ohio State University in the United States soon followed in 1984. Reading Recovery has been implemented in both countries ever since.

**Site implementation.** Many things must be put in place in order for Reading Recovery services to be implemented at a school. First, the school system must become affiliated with one of the 19 Reading Recovery university training centers in the United States. These training centers are led by faculty members who have undergone a yearlong, post-doctoral-level residency program at one of four international centers. Once residency is complete, graduates earn the title of Reading Recovery trainers. Reading Recovery trainers' responsibilities include (a) directing their training center; (b) overseeing the implementation, development, and expansion of Reading Recovery; (c) training teacher leaders; (d) providing leadership for the program; and (e) researching and evaluating the program (Reading Recovery Council of North America, 2012).

Once affiliated with a university training center, the school district must identify a Reading Recovery teacher leader to oversee the program. Depending on the school district's size, a personal Reading Recovery teacher leader may be hired or a teacher leader may be shared among a consortium of districts. To earn the title of Reading Recovery teacher leader, a yearlong residential program at one of the 20 Reading Recovery university training centers must be completed. Once trained, Reading Recovery teacher leaders' responsibilities include (a) teaching children, (b) training teachers, (c) aggregating research data for their site, (d) overseeing the implementation of their site, and (e) participating in professional development (Reading Recovery Council of North America, 2011).

With university affiliation complete and a Reading Recovery teacher leader in place, individual elementary schools in the district can begin staffing Reading Recovery



teachers. Like Reading Recovery trainers and teacher leaders, becoming a Reading Recovery teacher requires completing a yearlong training program. The Reading Recovery teacher leader provides this training locally through a graduate-level class that meets once a week after school hours. While being trained, these Reading Recovery teachers-in-training perform all the duties and responsibilities of trained Reading Recovery teachers spending half of their workday teaching four Reading Recovery students. Reading Recovery teachers' responsibilities include (a) teaching children, (b) implementing the program to fidelity, and (c) participating in ongoing professional development sessions led by the Reading Recovery teacher leader (Reading Recovery Council of North America, 2011).

**Student selection.** Reading Recovery teachers begin each school year collecting input from their schools' kindergarten and first-grade teachers in order to identify students who may be having difficulty acquiring beginning literacy behaviors for reading and writing. These identified students are observed by Reading Recovery teachers doing a variety of reading and writing activities that make up "An Observation Survey of Early Literacy Achievement" (Clay, 2013) in order to determine who qualifies for Reading Recovery services.

The Center on Response to Intervention (CRTI) awarded "An Observation Survey of Early Literacy Achievement" (Clay, 2013) with their highest possible rating for scientific rigor indicating that the screening tool is valid, reliable, and evidence-based (2014). Created by Reading Recovery's founder, Marie Clay, "An Observation Survey of Early Literacy Achievement" is made up of six literacy tasks that, when added

together, provide an observer with an initial snapshot of a learners' strengths and needs in beginning literacy. The assessment is given in a one-to-one setting, and teachers receive training so that administration, scoring, and interpretation are standardized. The six tasks that make up the Observation Survey include (a) concepts about print, (b) running records, (c) letter identification, (d) Ohio word test, (e) writing vocabulary, and (f) hearing and recording sounds in words.

Once all the tasks of the Observation Survey (Clay, 2013) are complete, the Reading Recovery teacher scores each task and translates the scores into Stanines. A Stanine is a norm measurement that allows students' achievement on each task to be compared among their peers and eases the selection process. These Stanine scores were achieved by administering the Observation Survey to a random sample of first graders attending US schools implementing Reading Recovery during the 2010-2011 school year (D'Agostino, 2012). It is important to note that there are no specific scores a student needs to obtain in order to qualify for Reading Recovery services. The goal of the program is to provide services to the lowest achieving students in the school and, therefore, the students with the lowest scores on the tasks of the Observation Survey in the school are selected (Clay, 2013). A Reading Recovery teacher typically tutors four students at a time, so the number of students selected at each site depends on the number of Reading Recovery teachers.

Once the Reading Recovery selection process is complete, Reading Recovery teachers revisit the data collected from the Observation Survey to help form a beginning hypothesis about these new learners. These data are analyzed qualitatively looking at

students' strategic behavior on each task and classifying the behaviors as useful or problematic using the Observation Survey Summary Sheet (see Clay, 2013, pp. 130-132). With the Observation survey summary sheet complete and an initial but tentative theory formed, a child's Reading Recovery program can begin.

**Individualized Reading Recovery lessons.** Reading Recovery teachers provide daily one-to-one tutoring to selected students for 30 minutes a day. Each Reading Recovery student's program is individualized, building on student strengths (Clay, 2005a). Programs begin with an initial 10-day period referred to as "Roaming Within the Known" or simply "Roaming." Roaming lessons focus on what the student has been observed to do. Clay's (2005a) reasons for why Roaming makes a good starting point are it (a) gives the teacher and student a time to get to know each other, (b) provides observation time for the teacher to see more of what the student can do, (c) allows the student to discover what he can do, (d) permits the recording of flexible observations, (e) works so the student identifies himself as a reader and writer, (f) strengthens what the student can do to build confidence and fluency, (g) builds a firm foundation of the known to which new knowledge will be added, (h) demonstrates how to complete various reading and writing tasks, and (i) forces the teacher to focus on what the learner can do and avoids teaching from preconceived notions.

Formal Reading Recovery lessons begin at the Reading Recovery teacher and student's eleventh meeting. Each lesson follows a similar framework to include (a) rereading familiar stories, (b) rereading the new book from yesterday while the teacher takes a running record, (c) working with words, (d) composing and shared writing

experience, (e) reconstructing a story cut up, and (e) introducing and reading of a new book (Clay, 2005a). The student and teacher work quickly moving through each task to ensure that all of the activities get done within 30 minutes.

Although the framework remains constant among all Reading Recovery students, the content and specific activities differ from student to student. This is what separates Reading Recovery from other intervention programs. It has no set steps or set curriculum. Everything is decided upon by the teacher based on observations of the student. This fact makes way for the often untold and unrealized part of the Reading Recovery. It is far more than a tutoring program for first graders. It “is a system-wide intervention that involves a network of education, communication, and collegiality designed to create a culture of learning that promotes literacy for high-risk children” (Lyons, Pinnell, & DeFord, 1993, p. 2).

**Students’ end-of-program status.** Students are exited out of Reading Recovery as soon as the Reading Recovery teacher feels confident that they have developed a self-extending system for reading and have reached a reading performance that is similar to their classroom peers (Clay, 2005a). At this point, the Reading Recovery teacher asks another Reading Recovery professional to test the student to avoid any teacher biases. The student is given all six tasks of the Observation Survey again using alternate forms of the assessment from the entry data. The Observation Survey data is then reviewed and a decision is made to either keep the student in the program or discontinue their series of lessons. Students who are found to have caught up to their peers and successfully exit the program receive an end-of-program status of Discontinued (D’Agostino & Harney,

2014). During the 2013-2014 school year, 55% of US students' programs fell into this category and 66% of these students lessons lasted between 10-19 weeks (International Data Evaluation Center, 2014).

The Reading Recovery Council of North America describes Reading Recovery as “a highly effective short-term intervention of one-to-one tutoring for low-achieving first graders” (Reading Recovery Council of North America, 2007). Short-term means that students are expected to progress quickly in the individualized program. It is rare that a student's program lasts more than 20 weeks. For students who do not progress successfully at the end of 20 weeks, an end-of-program status of Recommended is assigned (D'Agostino & Harmey, 2014). The Reading Recovery teacher, classroom teacher, and other important building personnel then meet to design a new plan of action for this student using the immense data collected on the student over the 20 weeks as their evidence. Sometimes, these students are recommended for special education services or support in small groups. While at other times, just close monitoring in class is recommended. During the 2013-2014 school year, 22% of US students were given this end-of-program status (International Data Evaluation Center, 2014). Besides Discontinued and Recommended, there are three other end-of-program statuses that could be assigned: (a) Incomplete, (b) Moved, and (c) None of the Above.

Incomplete statuses are sometimes given to “Round Two Students” in the United States. Reading Recovery teachers typically service four students at a time. Students chosen and provided service at the beginning of the year are referred to as “Round One Students.” When a student leaves the program either due to exceptional progress or the

conclusion of 20 weeks of lessons, a new student is quickly chosen to fill the vacancy. A “Round Two Student” is one who has been chosen to receive Reading Recovery services after a “Round One Student” has exited from the program. “Round Two students” typically begin their programs midyear. Due to the end of the school year, they do not always get the chance to receive a full program (20 weeks). If the end of the school year comes before students have been able to catch up to their peers, these students’ programs are labeled Incomplete (D’Agostino & Harmey, 2014). In the 2013-2014 school year, 17% of US students’ programs were classified in this category (International Data Evaluation Center, 2014). This end-of-program status has a different meaning to countries that follow the European model of implementation. In this model, students who are not ready for discontinuation at the end of the school year receive the end-of-program status of Ongoing. These students’ services are then continued into the new school year until their program is complete (European Centre for Reading Recovery, 2013).

Students who move during their Reading Recovery services get a program status of Moved (D’Agostino & Harmey, 2014). In the 2013-2014 school year, 4% of US students’ programs were classified in this category (International Data Evaluation Center, 2014). Finally, for students whose end-of-program status does not fit Discontinued, Recommended, Incomplete, or Moved, their programs are labeled “None of the Above” (D’Agostino & Harmey, 2014). These students began the program but had to be suspended part way through these lessons. In the European model, these students’ lessons are labeled Incomplete. In the 2013-2014 school year, 2% of US students’

programs were classified as None of the Above (International Data Evaluation Center, 2014).

**Why study Reading Recovery teachers?** Reading Recovery teachers' extensive and systematic training and daily use of running records help to classify them as the experts of this assessment tool. Lyons (2003), who also studied Reading Recovery teachers, stated that she believed Reading Recovery teachers "are more expert because they have successfully taught the lowest-achieving, most at-risk students how to read and write and enjoyed teaching them" (p. 134). A unique factor of the Reading Recovery program is the high level of trust it gives teachers to plan and implement differentiated lessons to students. Wiley (1992) explained:

Reading Recovery Teachers learn to observe, analyze and interpret the reading and writing behaviors of the student and to design and implement an individual program to meet his or her idiosyncratic learning needs. Teachers use no step-by-step kits or sets of prescribed instructional materials; no sequence is predetermined for learning skills. Instead teachers are expected to follow the child's intentions and to use productive examples that lead to further reading control. (pp. 3-4)

Clay (2005a) credited teachers' ability to individualize instruction with Reading Recovery's success and believed "the low level of success in older remedial programmes probably occurred because what is difficult about literacy learning differs markedly from child to child" (p. 17). With no set curriculum or steps, the success of each student's program rests on the decisions of Reading Recovery teachers. The strong emphasis

Reading Recovery places on individualized lessons would lead one to assume that the running record plays a key role in this process. But is this the case?

It is known that all Reading Recovery teachers take daily running records with each of their students. What is unknown is the value, if any, these teachers find in completing this required step of daily lessons. Also, unknown are these teachers' uses of this data to inform their instruction. This study, therefore, is designed to begin the exploration into Reading Recovery teachers' reported uses of and beliefs about the roles running records play in helping them individualize instruction with their first-grade students.

### **Statement of the Problem**

Teachers play a critical role in the administration and interpretation of classroom assessment. Afflerbach and Cho (2011) cautioned, "Simple alignment of assessment with instruction does not guarantee a successful implementation of classroom assessment. Success requires teachers' active and reflective use of assessment information to update teacher understanding and, so, instructional practices" (p. 503). In summary, it is not the act of conducting a running record, or any classroom assessment, that impacts students' achievement. Instead, it is how teachers use this information that has an impact on learning (Furtak et al., 2008; Yue et al., 2008).

Although running records are a commonly used assessment tool, few studies have looked into how teachers use this tool. Most research studies involving running records have used them as the dependent variable. Afflerbach and Cho (2011) found this is a common treatment of classroom assessments and encouraged future researchers to think



differently: “Research is needed in which reading assessment is not the measure of significance, but the object of investigation” (p. 508). This study was designed to heed this advice and begin to fill the gap in the literature on classroom assessment.

### **Importance of the Topic**

In summary, reading is a basic life skill that plays an important role in school experiences along with the achievement of individual and societal goals (Anderson et al., 1985; Lyon, 1997; Reschly, 2010). Students who experience reading difficulties early tend to continue to struggle throughout their academic careers (Hernandez, 2011; Juel, 1988; Shaywitz et al., 1999). Low literacy skills are linked to early dropout rates, need for government assistance, substance abuse, and crime (Balfanz et al., 2012; Chapman et al., 2010; Reschly, 2010). The good news is that with excellent instruction most reading difficulties can be prevented (Snow et al., 1998). Providing excellent reading instruction is difficult, as there is not one method that has been found to be effective with all children (Duffy & Hoffman, 1999; Graves & Dysktra, 1997; Lyon, 2001). Duffy and Hoffman (1999) summarize what works in reading education: “It has been repeatedly established that the best instruction results when combinations of methods are orchestrated by a teacher who decides what to do in light of children’s needs” (p. 11). Classroom assessments can be used to determine student needs and help plan for differentiated instruction (Pellegrino et al., 2001).

Although widely used, little is known about teachers’ actual uses of classroom assessments. In research, assessments are usually used as the dependent variable in a study, not the object of the study (Afflerbach & Cho, 2011). What is known about

assessment is that how it is used matters (Furtak et al., 2008; Yue et al., 2008). It makes sense, then, to study how expert teachers use an assessment tool. This study investigated a commonly used assessment tool used in the primary grades called a running record. Running records were selected as the object of this study for several reasons that include the following: (a) usefulness in monitoring beginning reading development, (b) flexibility to use with any text, (c) complexity in analyzing the data, and (d) wide use among teachers. Reading Recovery teachers were chosen as participants in this study due to their extensive and systematic training and daily use of the tool. The findings from this study help to fill a gap in the research on the use of classroom assessments. It is hoped that sharing the results will initiate a conversation as to the value of running records that will lead to their improved use and implementation so that more students can be provided with excellent early literacy instruction that meets their needs.

### **Research Questions**

The purpose of this study was to investigate Reading Recovery teachers' beliefs about and reported uses of running records guided by the following research questions:

1. What are Reading Recovery teachers' beliefs about running records and the roles they play in helping them individualize instruction for their first-grade students?
2. In what ways do Reading Recovery teachers report using their daily running records to help them individualize instruction for their first-grade students?
3. Are there differences in Reading Recovery teachers' beliefs about and uses of running records in helping them individualize instruction based on selected

demographic characteristics (e.g., work location, years of experience, degree in literacy)?

### **Definition of Terms**

To clarify the understanding and assist in the interpretation of this study, the following definitions are used:

1. *Believe*: “To have as an opinion” (Merriam-Webster, 2014).
2. *Differentiated instruction*: A way of thinking about teaching and learning that recognizes all students have different learning needs. It is a teacher’s responsive action to these needs with a goal to maximize growth and individual success (Tomlinson, 2000; Tomlinson & Allan, 2000).
3. *Differentiation (differentiate)*: Teacher identifies a teaching objective and then adjusts and designs instruction to meet the needs of different groups of learners by delivering instruction in a variety of ways (Bray & McClaskey, 2013). Data and assessment are used to provide feedback to individual learners, modify instruction, and measure progress.
4. *Formative assessment*: Assessment that is used to make judgments about student work, which has an active effect in that the judgment results in the teacher trying to improve student achievement (Sadler, 1989).
5. *Individual instruction*: Instruction of one student
6. *Individualization (individualized)*: Teacher identifies a teaching objective and then accommodates and customizes instruction to meet the needs of an

individual (Bray & McClaskey, 2013). Data and assessment are used to provide feedback, decide next steps for instruction, and measure progress.

7. *Reading*: A complex problem solving process through which a reader tries to construct meaning while reading text (Clay, 2005a).
8. *Reading Recovery*: Short-term intervention of one-to-one tutoring for low-achieving first graders (Reading Recovery Council of North America, 2007)
9. *Reading Recovery teacher leaders*: Teacher leaders must have a master's degree, five years of successful teaching experience, and make a commitment to working at a school site for at least three years. They participate in a yearlong training process at a Reading Recovery university training center along with teaching four Reading Recovery students. Once trained, these teachers are responsible for training new Reading Recovery teachers at a site, teaching at least two Reading Recovery students, monitoring the progress of both teachers and students, providing professional development to teachers, participating in professional development, and collecting and reporting Reading Recovery site data (Reading Recovery Council of North America, 2011).
10. *Reading Recovery teachers*: Teachers who have completed their yearlong training process in Reading Recovery and are actively implementing the program to fidelity by individually tutoring the most at-need first-grade students in a school building. Typically these teachers tutor four Reading

Recovery students for half of their school day. The other half of their day may involve working in classrooms, small groups, or as a literacy coach.

- 11. Reading Recovery teachers-in-training:* Certified teachers with at least three years of experience and evidence of successful teaching who are selected by a school within an approved Reading Recovery site to be trained and implement Reading Recovery. The training period lasts a full school year and teachers receive six credits of graduate coursework. They attend classes weekly and are responsible for teaching at least four Reading Recovery students daily and for filling various roles during the other half of the school day.
- 12. Reading Recovery trainers:* Teachers who have a doctoral degree and work at one of the 20 university training centers in the United States. They must complete a yearlong training process and make a three-year commitment to their site. Once trained, their primary responsibility is to train and provide support for teacher leaders, but they also individually tutor Reading Recovery students (Reading Recovery Council of North America, 2011).
- 13. Role:* “a function or part performed especially in a particular operation or process” (Merriam-Webster, 2014).
- 14. Running records:* An assessment tool of text reading that uses standardized procedures to observe and make note of student behaviors while reading a text aloud (Clay, 2000).

## **CHAPTER TWO**

This chapter begins by restating the importance of ensuring early reading success and the role that assessment can play in achieving this goal. A review of the literature related to the effectiveness of the Reading Recovery program, the context for this study, is summarized. This is followed by a review of the research on Reading Recovery teachers, the selected participants of this study. Next, research on teachers' use of running records, the object of this study, is provided. The chapter concludes by acknowledging the limitation of prior research in studying teachers' uses of assessment and the contribution that the current research provides to the field.

### **Background**

Early reading success is an important goal that primary teachers must have for all students. The consequences of not obtaining this goal are dire and impact students' school and personal achievements (Anderson, Hiebert, Scott, Wilkinson, & The Commission on Reading, 1985; Lyon, 2001; Reschly, 2010). Although reading research has helped to identify what should be taught in these early years (National Early Literacy Panel, 2008; National Institute of Child Health and Human Development, 2000; Snow, Burns, & Griffin, 1998), it has been unable to identify a single best method of instruction that is effective for all students, adding to the complexity of the task (Anderson et al., 1985; Duffy & Hoffman, 1999; Graves & Dykstra, 1997; Lyon, 1997; Pressley et al.,

2001). Students' individual differences, varying interests, and abilities help to explain why a one-size-fits-all approach to reading instruction is ineffective (Dochy et al., 1999). Effective teachers have been found to provide instruction in a variety of formats, to monitor student progress, and to adjust instruction in order to meet individual needs (Amendum et al., 2009; Cunningham, Hall, & Defee, 1991; Gamoran, 1989; Juel, 1990; Taylor, Pearson, Clark, & Walpole, 2000; Wilkinson & Townsend, 2000). These teachers link their solid content knowledge with assessment practices to best match students to instruction (Tomlinson, 1999).

Assessments used by teachers can be classified as being either formative or summative. Formative assessment practices allow teachers to make judgments about student work and results in the teacher trying to improve student achievement (Sadler, 1989). This differs from summative assessment practices, which aim to summarize student achievement and reports but does not try to improve learning (Sadler, 1989). In a survey of elementary school teachers' practices, teachers reported that they valued formative assessments for their usefulness over summative assessments, which they were typically required to administer by their school district (Baumann et al., 2000). Although widely used, little is known about how teachers use formative assessment to help inform their planning for instruction (Afflerbach & Cho, 2011). What is known is that teachers play a critical role in the administration and interpretation of classroom assessment and that how they use the assessment information matters (Furtak et al., 2008; Yue et al., 2008).

It is through formative classroom assessment practices that teachers not only identify learners who are struggling to obtain early literacy skills, but also use the data to plan for targeted support. Summative assessments do not provide this same benefit as it only serves to identify these learners at a time when it is often too late, such as at the end of the school year, to provide the learner with needed help (Pellegrino, Chudowsky, & Glaser, 2001). Formative assessments administered at the beginning or throughout the school year can identify learners needing specialized instruction, and classroom teachers can provide this instruction through differentiated instruction practices (Moon, 2005). On occasion though, some students need even more intensive instruction to ensure success. One way many schools supply this support in early literacy is by having trained Reading Recovery teachers on staff.

### **The Reading Recovery Program**

The context for this study is the Reading Recovery Program in the United States and the Republic of Ireland. Reading Recovery is described briefly as “a highly effective short-term intervention of one-to-one tutoring for low-achieving first graders” (Reading Recovery Council of North America, 2007). Schools with Reading Recovery have a specially trained teacher (or teachers) to implement the program. The Reading Recovery Council of North America oversees implementation of Reading Recovery in the United States and Canada. In 2014, the program celebrates its 30<sup>th</sup> year of implementation in the United States.

**Piloting Reading Recovery in the United States.** The implementation of Reading Recovery in the United States began as a research project whose focus was on



program evaluation. The researchers worked to determine if New Zealand's success with their lowest achieving students could be replicated and sustained with students in Ohio. Pinnell (1989) described the pilot project's overall objective to be to "determine whether Reading Recovery had been effectively implemented and what organizational arrangements the program required" (p. 171). The pilot study took place during the 1984-85 school year and involved 21 teachers. Of the 21 teachers, seven were trained to become teacher leaders and provide training in year two of the study to additional Reading Recovery teachers (Pinnell, 1989). The teachers not training to become teacher leaders were paired together into seven teacher teams and attended weekly seminar sessions throughout the school year as well as shared a first-grade classroom working half the day with Reading Recovery students and the other half in the first-grade classroom (Pinnell, 1989).

The pilot study took place in six urban schools. The principal of each school, along with the teachers, chose which classroom in the school would become the program classroom offering Reading Recovery, and then a comparison classroom was randomly selected (Pinnell, 1989). In October 1984, the total population of first graders at each school was tested using Clay's diagnostic survey (Pinnell, 1989). This testing allowed researchers to identify the lowest performing students in the grade level. Those in program classrooms received Reading Recovery services ( $n = 55$ ) beginning in January of the school year while those in the comparison classroom were identified and monitored ( $n = 55$ ). The Reading Recovery and comparison groups were tested two additional times in December 1984 and again at the end of the year (Pinnell, 1989). At

the end of the year, both groups were given the Stanford Achievement Test as well as the diagnostic survey (an early version of an Observation Survey). The remaining students not selected as participants in the study were tested a second time in May using the diagnostic survey.

The pilot was considered a success when 67% of the students who participated in Reading Recovery were able to reach average achievement in reading and writing (Lyons, 1998). Reading Recovery students excelled compared to the comparison group in Concepts of Print, Writing Vocabularies, Dictation, text level reading, and performance on the Stanford Achievement Test. Both groups had similar results on Letter Identification and Word Test. With the success of the pilot program, the Ohio General Assembly approved funding to begin implementation of the program statewide (Lyons, 1998). At the same time, researchers from Ohio State began a three-year longitudinal study of the programs effectiveness.

**First study of Reading Recovery's effectiveness in the United States.** The first research project into Reading Recovery's effectiveness with students in the United States was a longitudinal comparative study that was conducted from 1985 to 1989. The project was implemented in 12 urban schools where 20% of the lowest achieving first graders were randomly assigned to Reading Recovery or another reading program that was new to Columbus Public Schools. While the name of this comparison program is not provided in the research, it was described as being delivered by specially trained instructional assistants who worked with individuals and small groups on "drill and practice of the skills children were learning in the classroom instruction" (Pinnell, 1989,

p. 173). There were 32 teachers who taught Reading Recovery in this study, 12 of the teachers participated in the pilot study while the other 20 were new to the program and participated in a yearlong training class while they taught Reading Recovery.

Students ( $n = 136$ ) were assigned to participate in the Reading Recovery program and each was given daily one-to-one instruction for an average of 67 days. Seventy-four percent of the Reading Recovery students were successfully released from the program, meaning they no longer required additional support in reading. Fifty-two students were serviced in the comparison program, and they received daily help all year long. The diagnostic survey (an early version of an Observation Survey) was given to participating students at the beginning, when leaving the Reading Recovery program, and at the end of the school year. Added to the six subtests of the Diagnostic Survey, the reading vocabulary and comprehension portions of the Comprehensive Test of Basic Skills were also given. A random sample ( $n = 102$ ) that represented the upper 80% of first graders in the project schools was also selected and tested in all eight measures. Trained individuals, unaware of which group the children belonged, did the testing. The results of a multivariate analysis indicated significant differences between the comparison group and the Reading Recovery students. The Reading Recovery students reached higher levels than the comparison group, and the discontinued students reached or exceeded average levels in their schools (Lyons, Pinnell, & DeFord, 1993). From these results, it was concluded that Reading Recovery had immediate positive effects on participating students. The researchers next wondered if these children could maintain their progress

without additional help. Treatment students were followed for three years to determine the answer.

The purpose of the follow-up studies was to provide insights in the long-range effectiveness of the Reading Recovery program (Lyons et al., 1993). To determine this, testers unaware of student grouping tested Reading Recovery students, comparison students, and a random sample of grade-level peers on their text reading ability at the end of their second, third, and fourth grades. The results showed that all students who participated in Reading Recovery, regardless of their end-of-program status, were ahead of the initial comparison group at the end of fourth grade. Reading Recovery students, who had successfully discontinued their programs, were found to have similar achievement as their grade-level peers reading at least two levels above grade level. The researchers concluded that Reading Recovery indeed has long-term positive benefits for children.

In 1987, the U.S. Department of Education's National Diffusion Network selected Reading Recovery as an exemplary program, paving its way for expansion outside of Ohio (Lyons et al., 1993). This expansion was not taken lightly as the original researchers at Ohio State wanted to ensure that each replication of the program was done with fidelity and rigor. Training for the additional sites was completed in Ohio and these additional sites were required to collect data on all of their participants and to share these results with the researchers at Ohio State. The data collection and reporting procedure required by Reading Recovery participants have allowed further research studies into Reading Recovery's effectiveness to be replicated throughout the country.

### **Thirty years of data studying Reading Recovery's effectiveness in the U.S.**

Shanahan and Barr (1995) were the first to bring together both the published and unpublished evaluations of Reading Recovery and to give an independent analysis of the program's value. Two of the five questions the evaluators set out to discover were if the Reading Recovery program helps students learn how to read and whether it provides better results than other programs. The results from five studies and technical reports (Huck & Pinnell, 1986; Iverson & Tunmer, 1993; Lyons, Pinnell, Short, & Young, 1986; Pinnell, Huck, & DeFord, 1986; Pinnell, Lyons, Young, & DeFord, 1987) were pooled to help determine that Reading Recovery students learn a great deal in the program. Two studies (Huck & Pinnell, 1986; Lyons, Pinnell, Short, & Young, 1986) examined helped the researchers conclude that Reading Recovery students' gains exceed those of average students, helping to close the literacy gap between the groups. Five studies (Center, Wheldall, Freeman, Outhred, & McNaught, 1995; Huck & Pinnell, 1986; Iverson & Tunmer, 1993; Pinnell, Huck, & DeFord, 1986; Pinnell, Lyons, DeFord, Bryk, & Seltzer, 1994) were used to conclude that Reading Recovery students do better than other low-performing students in alternate programs. Another five studies (Iverson & Tunmer, 1993; Pinnell, Lyons, DeFord, Bryk, & Seltzer, 1994; Slavin, 1987; Slavin & Madden, 1989; Wasik & Slavin, 1993) were used to compare Reading Recovery with other intervention programs and found that Reading Recovery consistently showed strong effects and compared well to other high-quality interventions. The evaluators commended Reading Recovery advocates for conducting research on the program because it began in the United States. They commented, "This program has received

greater evaluation scrutiny than most, perhaps all, similar intervention” (Shanahan & Barr, 1995, p. 991).

Nine years after Shanahan and Barr’s evaluation, D’Agostino and Murphy (2004) published a meta-analysis on the impact of Reading Recovery. Locating 109 studies, they found 36 of them provided sufficient data to use for a meta-analysis. Two analyses were completed. The first analysis had broader guidelines and used all 36 studies. The second analysis had narrower guidelines and included only 11 studies that included pretest and posttest scores from treatment and comparison groups. Reading Recovery’s effects on discontinued, not discontinued, and control groups were assessed. Positive program effects were found in both sets of students who received Reading Recovery services. Not surprising, Reading Recovery had greater effects for students who successfully discontinued from their series of lessons. When the researchers compared the results of their first and second analysis, they did not find evidence of large discrepancies in the results. The conclusion of the meta-analysis found that Reading Recovery had effects on broad reading skills to at least the end of second grade.

Four years after D’Agostino and Murphy’s meta-analysis, the U.S. Department of Education published its first review of the research on Reading Recovery’s effectiveness as part of its What Works Clearinghouse program. The What Works Clearinghouse was created in 2002 by the U.S. Department of Education’s Institute of Education. The goal of this organization is to help educators make scientifically-based research decisions about the programs they implement in their schools (What Works Clearinghouse, 2013). To do this, the organization reviews the research on a selected topic or program using a

strict review protocol and then publishes their review, findings, and effectiveness rating on their website. In 2013, the What Works Clearinghouse revisited their 2008 evaluation of Reading Recovery. With almost 30 years of studies available, they located 202 studies that investigated the effects of Reading Recovery. From this large group, just three studies (Pinnell, DeFord, & Lyons, 1988; Pinnell, Lyons, DeFord, Bryk, & Seltzer, 1994; Schwartz, 2005) met the strict eligibility screening process. Many of the studies were rejected because they could not be classified as an experimental study with randomized controlled trials. Inappropriate comparison groups were another reason for rejection from the review. Because Reading Recovery is designed for low-achieving first graders, similar low-achieving first graders who did not receive Reading Recovery were believed to be the appropriate comparison group.

The What Works Clearinghouse review used their Beginning Reading Evidence Review Protocol to evaluate the Reading Recovery program on four student outcomes: (a) alphabets, (b) reading fluency, (c) comprehension, and (d) general reading achievement. Combined, the three studies reviewed on Reading Recovery effectiveness by the What Works Clearinghouse included 227 first-grade students across 14 states (U.S. Department of Education, 2013). The results of the review found Reading Recovery to have potentially positive effects in alphabets, reading fluency, and comprehension and positive effects on general reading achievement. Of significance, Reading Recovery's reading fluency improvement index is the highest to date among the 76 intervention programs reviewed in reading (What Works Clearinghouse, 2013). This same review

ranked Reading Recovery sixth in alphabetic knowledge, third in reading achievement, and seventh in reading comprehension among the 76 interventions.

Research into Reading Recovery's effectiveness continues to be studied. In October 2010, The Ohio State University received a \$46.5 million Investing in Innovation (i3) grant from the U.S. Department of Education to fuel a five-year study. The i3 study data is being compiled by independent evaluators from seven major research universities that are committed to publishing three annual reports. The first of these three reports is available and evaluates the i3 program's (a) success of meeting expansion goals, (b) documentation of implementation and fidelity to standards, and (c) evidence of impacts of Reading Recovery on student learning (May et al., 2013). The research design for this report involved randomly assigning 886 students identified as being low performers in literacy to receive typical reading instruction or Reading Recovery. Students who received Reading Recovery were found to outperform students in the control group using the Iowa Test of Basic Skills (ITBS). Reading Recovery students received an increase of 18 percentile points in reading, 16 percentile points in word scores, and 20 percentile points in comprehension above their peers in the control group (May et al., 2013). Data will continue to be collected for this project until September 2015.

**Reading Recovery in the Republic of Ireland.** Reading Recovery Europe oversees the implementation of Reading Recovery in England, the Channel Islands, the Republic of Ireland, and Denmark. In March of 1990, the United Kingdom was the first of these countries to study the program's effectiveness with pupils. An investigation into



that first year of implementation found that the program indeed provided effective literacy instruction to low achieving pupils (Wright, 1992). This encouraging finding extended the research study across England and served to support new programs in the nearby countries of Northern Ireland in 1993, Scotland in 1998, the Republic of Ireland and Wales in 1999, and translation to Danish in 2003 (European Centre for Reading Recovery, 2014).

When reviewing the research on the effectiveness of Reading Recovery in European countries, many of the studies referenced are the same as those previously mentioned, which were conducted in the United States (European Centre for Reading Recovery, 2014). Reading Recovery's strong commitment and keen oversight to implementation and data collection may help to explain why it is possible to expect the similar results across country borders (The Ohio State University, 2014). Reading Recovery testing, entrance and exit procedures, instruction of teachers, lesson format, and materials are the same among all locations. Theoretically, one should be able drop into any Reading Recovery lesson in the world and expect to see the same procedures in place.

One difference between the United States (U.S.) implementation of Reading Recovery and the European model is that students' programs are handled at the end of the school year. In the European model, if the school year comes to an end before a pupil has received a full set of lessons, lessons are continued at the beginning of the next year until the program is deemed complete. This procedure, improves the percentage of pupils who successfully discontinue from the program over the U.S. model, which labels these students' programs Incomplete. At the time of this literature review, there were no

published research studies on the effectiveness of Reading Recovery in the Republic of Ireland. Annual reports for the country were available for review for the implementation years 2004 through 2013. Most of these reports combined data with that collected in the United Kingdom (U.K.), but two reports for the school years 2010-2011 and 2011-2012 reported on Ireland's individual results. These reports come from compiling the data submitted by each Reading Recovery teacher on the pupils served in the program during the school year. During the 2012-2013 school year, the U.K. and the Republic of Ireland reported that 62% of students in Reading Recovery successfully discontinued from the program, 11% of students were recommended for other services, and 19% of students would finish the program the next year (European Centre for Reading Recovery, 2013).

### **Reading Recovery Teachers**

The participants for this study are practicing Reading Recovery teachers. To be eligible to participate in the study, teachers must hold one of the following three titles (a) Reading Recovery teacher leader, (b) Reading Recovery teacher, (c) or Reading Recovery teacher-in-training. Teachers with these titles all use running records in their daily work with first-grade students. While the majority of the research on Reading Recovery has focused on students and student outcomes, the importance of the Reading Recovery teacher to the success of the program cannot be underestimated. In an era of teacher proof curriculums, few programs give teachers as much freedom, power, and trust as Reading Recovery (McEneaney, Lose, & Schwartz, 2006). Reading Recovery's founder, Marie Clay, describes the complexity of being a teacher in the program as follows:

Reading Recovery Teachers learn to observe, analyze and interpret the reading and writing behaviors of the student and to design and implement an individual program to meet his or her idiosyncratic learning needs. Teachers use no step-by-step kits or sets of prescribed instructional materials; no sequence is predetermined for learning skills. Instead teachers are expected to follow the child's intentions and to use productive examples that lead to further reading control. Acceleration depends upon teacher selection of the clearest, easiest, most memorable examples with which to establish a new response, skill, principle or procedure. (Clay, 1985, p. 53)

As described, with no set curriculum or steps, the success of each student's program rests on the decisions of their Reading Recovery teachers. It seems important then to research the decisions Reading Recovery teachers are making and work to understand what role these decisions play in program effectiveness.

**Reading Recovery teachers as decision makers.** The research on Reading Recovery teachers' decision-making involves studying expert teachers, usually one at a time, in order to explain how they successfully designed lessons to meet the needs of their students. Jones (2000), a Reading Recovery trainer, compared Reading Recovery teachers' decision-making process to that of action research stressing that the process is cyclical and begins with observation of the student. Jones (2000) noted the literature on Reading Recovery teacher decision-making discusses the challenges that teachers face in attempting to make the right decisions that result in accelerated learning. He explained, "Reading Recovery teaching will always be challenging and difficult because it involves

analysis and problem-solving of the most difficult learning cases, each of which requires skillful, daily decision-making based upon an individual child's unique needs" (Jones, 2000, p. 5).

One way that Reading Recovery teachers help inform their teaching practice is by taking careful notes on their lesson records (see Clay, 2005b, pp.196-197). Lesson records are similar to classroom teachers' lesson plans. Reading Recovery teachers use their lesson records to record their planning prior to the lesson, to take notes on during the lesson, and to reflect on after the lesson. Gibson (2003), a Reading Recovery trainer, collected the lesson records of an experienced and successful Reading Recovery teacher in order to examine the ways in which lesson records were used to support her effective teaching. Gibson found that these records helped the teacher with (a) self-control to remember key teaching points, (b) self-regulation to stay alert and think about the individual child, (c) ability to think deeply about the student's literacy learning, and (d) teacher's improved self-efficacy when plans and ideas were found to be successful. Gibson concluded that lesson records are an important component to teachers' ongoing learning that provides feedback for goals set and improves teaching.

Wiley (1992) came to the same conclusion about lesson records when she used hers to write a self-study research article titled, "Analysis of Learning: A Hard-to-Teach Child or A Hard-to-Teach Teacher." In this piece, Wiley reflects on her work with Lazonna, a Reading Recovery student she considered the hardest for her to teach one year. In reviewing the lesson records of this child, she discovered three plateaus in the child's learning. Through her lesson analysis, she found "much of what I knew or didn't know

was reflected in Lazonna's progress as a reader" (p. 1). Looking back allowed her to realize that her student's lack of progress was a result of her (a) using incorrect prior knowledge, (b) teaching for items and not strategies, and (c) working with outdated goals. She concluded that being a successful Reading Recovery teacher means accepting the role of a lifelong learner who is willing to adapt and change teaching to best meet the needs of struggling readers.

Instead of using lesson records in her case study of an effective Reading Recovery teacher, Elliott (1996) used think aloud protocol. Data were collected every three weeks for three consecutive sessions throughout the year on two separate students. The Reading Recovery teacher was asked to audiotape her reflections after her lesson with chosen students and to describe her reasoning about the decisions made during the lesson. Once a week this same teacher wrote in a reflective journal about each student being studied. Finally, the Reading Recovery teacher participated in interviews with the researcher. The teacher's reflections revealed she made a variety of decisions that were categorized as (a) prompting, (b) planning, (c) confirming, (d) demonstrating, or (e) tentative theory decisions about each learner. The teacher was found to base her decisions on multiple sources of teacher knowledge, and observation was seen as a key source of evidence in her decision-making.

Outson (2003) used a similar data collection procedure in her dissertation research of two exemplary Reading Recovery teachers in Canada. Like Elliott (1996), she too had Reading Recovery teachers gather data for three consecutive days at three-week intervals for two of their second-round students. Instead of having teachers reflect generally after

their lessons though, Outson asked the Reading Recovery teachers to reflect specifically on their book selections and book introductions. Before the lessons, the Reading Recovery teachers tape-recorded their rationales for the decisions they made about book selections and introductions for each child in the study. After the lessons, these same teachers tape-recorded their evaluations of their decisions. After studying the transcripts of these recordings along with teacher interviews, the researcher found that the teachers' book selections were based on (a) text characteristics, (b) words found in text, (c) text vocabulary, and (d) their students' strengths. A conclusion the author drew from the study is that these effective Reading Recovery teachers believed that their decisions influenced student success.

Glasgow (2002) also investigated teacher decision-making in book choice but did so using different methods. Participants were three different Reading Recovery teachers who varied in experience and were asked to answer a set of survey questions before and after lessons 11, 31, and 51 for two of their students. An audiotape recording was conducted of the book introductions and the children's first read of the book. Interviews with participating teachers were also taped. The study found "when teachers did a careful job analyzing their records to determine what the child needed, the book choice was good" (p. 105). However, if the teacher did not study his/her records closely enough to figure out what the child needed the book choice was poor. The audiotapes of the book introductions revealed that the texts were "introduced the same way for the majority of the lessons, which means that the teachers were not changing the book orientations to meet the specific needs of each child" (p. 108). Finally, the more experienced Reading

Recovery teacher was found to do a better job of analyzing what their child could do and what they still needed to learn. It should be noted that this experienced teacher was also a Reading Recovery teacher leader who had received more training as a result.

Gibson (2010) similarly found Reading Recovery teachers demonstrated varying knowledge on key early literacy topics such as phonological awareness, strategies for word identification, and comprehension. For this study the researcher met with 20 Reading Recovery teachers after they had successfully discontinued a student to ask them specific questions about that child's program. When the interviews were completed, teachers' responses were analyzed and the teachers' knowledge was categorized as (a) limiting, (b) applicative, or (c) expert. Gibson concluded, "expertise appears to have developed within teachers' active engagement in close observation and problem solving as participants taught for each Reading Recovery students' successful discontinuing" (p. 42).

A review of the literature on Reading Recovery teachers' decision-making finds that the most successful Reading Recovery teachers are careful observers, reflective, and responsive practitioners. Reading Recovery teachers' decisions have been studied through their lesson records, think alouds, book selections, and content knowledge. A limitation of this literature is that research in this field usually involves small case studies asking teachers to reflect on their practices. While lesson records were mentioned as sources of data collection used by teachers to help them effectively plan, a key element of each Reading Recovery lesson was not mentioned in any of these research studies and that is the daily running record and how these are used to inform instruction. If Reading

Recovery lessons are designed for individual students based on their strengths, behaviors, and responses to text, research into Reading Recovery teachers' running record use would provide an important window into decision making not previously explored.

### **Running Records**

Running records are the objects of this study. Running records were developed in a research setting by Marie Clay (1966) to help record observations of young children reading. Clay found the tool so useful that she incorporated its use into the daily lesson framework of her intervention program for low progress first graders called Reading Recovery. Clay (1979) stated that running records are "adapted to the teacher's need in day to day activities of the classroom, particularly those who teach young children" (p. 17). The materials required to conduct a running record are simply a sheet of paper, a writing utensil, and a text for a student to read. This being said, teachers often used standard templates of running records that allow for neat recording and easy analyzing (see Appendix A). The ability to take a running record on any text makes it a flexible assessment tool to use.

Running Records provide an assessment of text reading (Clay, 2000). Using standardized procedures, teachers observe and make note of individual student behaviors while reading a text aloud. Checkmarks are given for accurate reading and attempts at words are written out. After the reading, teachers quantify the running record by determining the ratio of errors, accuracy rate, and self-correction rate. Errors can be further explored qualitatively to determine what reading cues (meaning, structure, or visual information) the reader was thought to be using. A final step in the analysis



process is for the teachers to write a summary sentence about their analysis of errors and self-corrections.

In order to administer running records with fidelity and reliability, teachers must be trained in procedures, scoring, and interpretation of this assessment tool. Clay (2013) recommends that teachers attend at least three training sessions before using running records independently. Teachers' learning in these training sessions should be monitored. Fitzharris, Jones, and Crawford (2008) assessed teachers' running record knowledge after training in one school and discovered that even though the teachers attended the same class, prior knowledge caused the teachers to exit at varying levels of development. Clay (2013) explained a possible reasoning behind this finding:

When teachers ask themselves 'What does my record tell me?' they bring their own beliefs about literacy (their personal theory of literacy learning) and their background of professional experience into the interpretation. Interpretations of Running Records are heavily weighted with the theoretical view the teacher already holds...When teachers have different theories about what is important for the beginning reader to learn they could interpret the same behaviour record in different ways. (p. 74)

Gallant and Schwartz (2010) asked preservice teachers, experienced teachers, and Reading Recovery teachers to watch a video of first graders reading, take a running record, and recommend a course of action for the students. The Reading Recovery teachers were found to understand reading behaviors in a "noticeably different way" (Gallant & Schwartz, 2010, p. 14). It should be expected that Reading Recovery teachers

were found to interpret, to infer, and to recommend literacy instruction more specifically than both classroom and preservice teachers, since the Reading Recovery teachers use running records daily as an assessment and observation tool.

Each Reading Recovery lesson begins with the student selecting two or three familiar books to reread. Following these familiar readings, the Reading Recovery teacher hands the student the new book that was introduced at the end of the previous day's lesson and takes a running record of the student reading this book. While taking the running record, the teacher follows running record protocol as outlined by Clay (2013), who encourages recording observations and refraining from teaching. A running record serves as an observational tool for the teacher. Clay mentions three purposes for taking a running record: (a) to guide teaching, (b) to assess difficulty, and (c) to capture progress. In guiding teaching she explains:

Having taken the record teachers can review what happened immediately, leading to a teaching decision on the spot, or at a later time as the plan for the next lessons. They can judge what the reader already knows, what the reader attended to, and what the reader overlooked...The records allow teachers to describe how children are working on a text. (Clay, 2013, p. 52)

Many important teaching decisions can be made as a result of taking a running record, which makes it surprising to learn how few have researched the role of running records in teachers' decision making. The research that has been done on running records speaks to its usefulness and complexity.

**Research on teachers' uses of running records.** Fawson, Ludlow, Reutzel, Sudweeks, and Smith (2006) described running records usefulness in their ability “to capture various reading behaviors that young children exhibit during contextual reading. As such, running records provide teachers with data in which to make informed instructional decisions,” (p. 113). Because running records are widely used for assessment purposes, these researchers saw a need to check their reliability. To do so, they asked 10 first-grade teachers, who used running records to varying degrees, to watch and take running records on 10 first graders reading two separate level 14 texts. Leveled texts are used in primary reading to help teachers match book difficulty to readers' abilities. A level 14 text would be nearing the end of first-grade reading benchmark, which is typically level 16. The researchers found little variability among raters on the two passages; however, they did find that students' performance varied on the texts, even though they were asked to read two texts from the same level. It was concluded that using at least three passages from the same level, type, and structure would serve to produce the most stable running record scores for students.

Ross (2004) describes running records usefulness as a formative assessment tool because it “provides information that can be used to improve students' reading” (p. 187). He wondered though if the use of running records by classroom teachers would result in improved student achievement. To find out, 39 elementary schools in a school district in Canada were randomly assigned to provide inservice training to their teachers in using running records, while 34 schools in this same district were randomly assigned to provide inservice training in action research. Both groups received the same funds and provided

the same amount of in-service time. Ross took the school district's standardized test scores prior to implementation and post implementation to measure students' achievement. Students from schools participating in the running records treatment made large gains in reading scores and medium gains in their writing scores. The running record schools outperformed the students in the action research treatment whose scores actually decreased. Ross (2004) concluded that specific school plans work better than general plans and that classroom assessment systems contribute to high achievement in reading and writing. While this research speaks positively about running records use, little is known about how the running records were used by the classroom teachers, which led to these significant achievement gains.

Fitzharris et al.'s (2008) smaller research study provides insight into how the use of running records can vary from teacher to teacher. In their study, they looked at six primary classroom teachers who were recent graduates of an in-service on running records. Each teacher was observed completing a running record and then asked to score it. The researchers videotaped the teachers describing the scoring process and how they would use the running record in instruction. While all teachers participated in the same training, their knowledge showed varying levels of understanding. The researchers categorized the understanding into beginning, developing, independent, or mastery. The researchers concluded that breadth of educational experiences and professional experiences seemed to enhance teachers' performance rather than number of years teaching. This research points to the complexity of administering and interpreting

running record data as well as how experience and training play a role in fidelity of implementation.

Similarly, Gallant and Schwartz (2010) found that preservice teachers, practicing classroom teachers, and Reading Recovery teachers displayed varying degrees of ability interpreting running records. They showed a videotape of a first-grade child reading two separate texts at two different points in his Reading Recovery program and asked participants to take a running record of the child and write an assessment of their observations. Gallant and Schwartz compared the responses of five purposefully chosen teachers from each of the three groups. Differences were clearly seen among the groups with the Reading Recovery teachers exhibiting the most complete descriptions of what the child could do with a course of action to be taken. They concluded that video observations with a response can show teachers theoretical and pedagogical knowledge over time and be used to evaluate student performance in preservice teachers. Because Reading Recovery teachers have been both preservice teachers and practicing classroom teachers, the findings from this research also demonstrate the effectiveness the yearlong training process has on shaping and reforming their observational skills and decision-making processes.

The research on running records discusses its usefulness as an assessment tool and points to its complexity. Teachers' background knowledge was found to play an important role in determining how effectively and extensively the tool was used (Fitzharris et al., 2008; Gallant & Schwartz, 2010). More research needs to be done in investigating how running records are interpreted and used to plan instruction. Clay

(2013) suggests that running records be used to guide teaching, to assess text difficulty, and to capture progress, yet little is known to what extent teachers do these three things. This study specifically focused on Reading Recovery teachers' beliefs about and uses of the tool. These teachers' extensive training and daily use of the tool helps to qualify them as the experts.

### **Limitations to Current Studies**

Reading Recovery is described as a highly effective short-term intervention of one-to-one tutoring for low-achieving first graders (Reading Recovery Council of North America, 2007). These students are taught individually for 30 minutes a day by a highly trained teacher responsible for designing and delivering differentiated instruction to each student based on student needs. Most research studies conducted in Reading Recovery focus on the effectiveness of the program as measured by student progress. With 30 years of data to support its effectiveness with low achieving first graders, it is time to switch the focus of Reading Recovery investigations into learning more about what makes the program successful and how the success rate could be further improved. To discover these answers, research focus must turn to Reading Recovery teachers whose informed decisions play a critical role in the programs' effectiveness.

A review of the literature on Reading Recovery teachers' decision-making finds that the most successful Reading Recovery teachers are careful observers, reflective, and responsive practitioners. Reading Recovery teachers' decisions have been studied through their lesson records, think alouds, book selections, and content knowledge. A limitation of the research on Reading Recovery teachers' decision making is that the

results cannot be generalized among all Reading Recovery teachers as only a few expert teachers were studied. Another limitation is that a key element of Reading Recovery teachers' daily data collection, running records, has been ignored. While lesson records were mentioned as sources of data used by teachers to help them effectively plan, questions about teachers' uses of the required daily running record and how it is used to inform instruction have not been asked. If Reading Recovery lessons are designed for individual students based on their strengths, behaviors, and responses to text, research into Reading Recovery teachers' running record use would provide an important window into decision-making not previously explored. As a result, this research worked to help fill this gap by asking practicing Reading Recovery teachers about their beliefs about and uses of this daily assessment tool.

### **CHAPTER THREE**

The purpose of this study was to explore Reading Recovery teachers' reported uses of and beliefs about the roles running records play in helping them individualize instruction with their first-grade students. A running record is a common assessment tool used in the primary grades to assess students' text reading (Clay, 2000; Johnston, 2000). Although widely used, little is known about teachers' value and use of running record data once it is collected (Baumann, Hoffman, Duffy-Hester, & Ro, 2000; Bean et al., 2002). Running records are a daily component of each Reading Recovery lesson. How Reading Recovery teachers view this requirement is unclear. To learn more, a cross-sectional survey design was used to gather information on the roles Reading Recovery teachers see running records play before, during, and after daily instruction with their first-grade students (see Appendix B).

Survey method is commonly used to help researchers describe trends and identify current beliefs, opinions, attitudes, and practices related to individuals (Creswell, 2008). This methodology matched well with my desire to understand Reading Recovery teachers' beliefs, opinions, attitudes, and practices of their running record use. A cross-sectional survey design was chosen, and the data were collected at one point in time. The following research questions guided this study:



1. What are Reading Recovery teachers' beliefs about running records and the roles they play in helping them individualize instruction for their first-grade students?
2. In what ways do Reading Recovery teachers report using their daily running records to help them individualize instruction for their first-grade students?
3. Are there differences in Reading Recovery teachers' beliefs about and uses of running records in helping them individualize instruction based on selected demographic characteristics (e.g., work location, years of experience, degree in literacy)?

### **Participants and Context**

This study was open to all practicing Reading Recovery teachers along with their Reading Recovery teacher leaders. There were no restrictions for age, sex, ethnic background, or health status. Practicing Reading Recovery professionals were chosen to participate based on their extensive use, systematic training, and daily use of running records. The Reading Recovery program has been implemented in the United States since 1984, and it has expanded significantly throughout the country. During the 2013-2014 school year, there were 252 Reading Recovery sites led by 305 Reading Recovery teacher leaders in 41 states with 5,928 Reading Recovery teachers delivering instruction in 3,736 elementary schools and reaching over 47,000 students (International Data Evaluation Center, 2014). Reading Recovery is a distinctive program in its standardization of training procedures, program implementation, and lesson format. In theory, one should be able to visit any Reading Recovery site in the world and see the same implementation with little variation from site to site or even country to country.

Besides the United States, Reading Recovery is currently implemented in the New Zealand, Australia, Canada, England, the Channel Islands of Guernsey and Jersey, the Republic of Ireland, and Denmark. This study was open to participation from Reading Recovery teachers outside the United States as well. Although the study was open to all practicing Reading Recovery teachers, recruitment of participants began by locating Reading Recovery sites willing to participate in the study.

**Site recruitment.** The decision to disseminate the study questionnaire by Reading Recovery sites versus locating individual Reading Recovery teachers was made for several reasons. First, this practice ensured that the Reading Recovery teachers had approval from their school districts to report about their teaching practices. Second, this aided in standardized procedures being used in the data collection. Third, I hypothesized this would result in greater participation of a more diverse group. I was concerned that administering the questionnaire individually would result in only a select few highly motivated individuals taking the time to complete the questionnaire, which could lead to biased results. Fourth, obtaining several questionnaires from the same site aided in answering research question number three of this study. This question asks whether there are differences in Reading Recovery teachers' beliefs about the roles that running records play based on selected demographic characteristics. Therefore, the more responses from each site, the more reliable the findings could be considered. Finally, this practice served to test the theory that Reading Recovery implementation is indeed similar from site to site.

Site recruitment began in February 2013 at the National Reading Recovery & K-6 Classroom Literacy Conference in Columbus, Ohio. Throughout my long weekend in

Ohio, I met several Reading Recovery teacher leaders at various conference sessions. While we waited for sessions to begin, we would engage in small talk about where we were from and why we were interested in the session topic. Through this conversation, I was able to share my research interest and idea for this study. After hearing about my projected study, three teacher leaders expressed willingness to collect data at their site and contact information was exchanged so that arrangements could be made for this to occur.

When I returned home from the conference, a new acquaintance put me in contact with a Reading Recovery trainer. After hearing about my proposed study and my search for participating Reading Recovery sites, the Reading Recovery trainer offered to spread the word via email to the Reading Recovery teacher leaders affiliated with her university. I sent an email to 30 Reading Recovery teacher leaders and provided them with an introduction of the researcher, a brief description of the project, and the proposed procedures. A one-page summary sheet of the study was also attached to this email for teacher leaders interested in learning more. Two Reading Recovery teacher leaders responded to this request. One wrote to inform me that all of her professional development (PD) sessions had been completed for the school year; therefore, her site could not participate. The other asked to see the survey before deciding to participate. Neither Reading Recovery teacher leader responded to additional attempts to communicate with them.

In June 2013, I attended the Reading Recovery Teacher Leader Institute & Leadership Academy in North Bethesda, Maryland. Similar to the National Reading

Recovery Conference, I met several Reading Recovery teacher leaders throughout the weekend through conversations started before or during conference sessions. At this conference, four Reading Recovery teacher leaders expressed willingness to help me with the data collection for my study. Two of the four teacher leaders remembered receiving information about my study from their Reading Recovery trainer. Upon returning home from this conference, one of the Reading Recovery teacher leaders resent my request to participate to 15 of the 30 Reading Recovery teacher leaders. Six Reading Recovery teacher leaders replied back expressing their willingness to have their Reading Recovery site participate in the study.

It is estimated that 50 of the 305 Reading Recovery teacher leaders in the United States were informed of this study. From these 50 Reading Recovery teacher leaders, 13 expressed interest in having their site participate in the study. This study received initial Institutional Review Board (IRB) approval from George Mason University on April 15, 2013. In this review, the study was found to be exempt from formal review because it fell under the Department of Health and Human Services (DHHS) Exempt Category 2 (see Appendix C). All amendments and modifications made to this study have been exempt from full review. The proposal to conduct the study was approved on April 25, 2013. With University support achieved, each of the 13 Reading Recovery teacher leaders were asked to obtain and submit a letter of support from their school districts.

**Approved Reading Recovery site descriptions.** The school district approval process spanned a six-month period, with the first approval received in June 2013 and the last arriving in January 2014. Of the 13 Reading Recovery sites that expressed initial

interest, two sites chose not to participate, three sites never responded to teacher leaders' requests for approval, and eight sites gave approval. These eight sites span two countries, the Republic of Ireland and the United States. Seven of the sites were located in the US and serviced four states: two in the Northeast and two in the Midwest. The sites' sizes ranged from small (employing fewer than 10 Reading Recovery teachers) to large (employing over 55 Reading Recovery teachers). Together these Reading Recovery sites support 300 Reading Recovery teachers working in 39 different school systems in 181 elementary schools.

**Participants.** Of the 300 Reading Recovery teachers working in the approved sites, 291 were asked to participate. Inclement weather during Winter 2013-2014 prohibited participation from one group of eight Reading Recovery teachers-in-training. From the 291 sent out, 229 questionnaires were returned resulting in a 79% response rate. Although response rates fluctuate greatly depending on collection methods (Creswell, 2008), McMillan and Schumacher (2001) stated, "If researchers can obtain a total return rate of 70 percent or better, they are doing very well" (p. 309). Table 2 shows the response rate for each of the eight sites. It should be noted that the two sites with the lowest return rates did not provide time during professional development to complete the questionnaires. Instead, these sites gave teachers the questionnaires prior to the professional development and asked them to return them at the professional development session.

Table 2

*Response Rate by Site*

Site	Response Rate
Midwest one	36%
Midwest two	100%
Northeast three	44%
Northeast four	88%
Midwest five	90%
Midwest six	91%
Northeast seven	79%
Ireland eight	88%

Upon review of the questionnaires, one did not meet the participant criteria. This teacher was a Literacy Lessons for Individuals teacher. Her questionnaire was removed from the study. The majority of the respondents ( $n = 216$ ) reported being Reading Recovery teachers, 11 were Reading Recovery teachers-in-training, and one was a Reading Recovery teacher leader. The Reading Recovery teachers who worked in U.S. schools totaled 167, and 61 worked in elementary schools in Ireland. Teachers' years of experience in the Reading Recovery program ranged from less than a year to 22 years. Over three-fifths (62%) of the U.S. teachers reported being certified reading specialists. Conversely, two-thirds (67%) of the Ireland teachers reported not holding the equivalent

learning support degree. Only seven of the 228 respondents reported Reading Recovery teaching as their sole responsibility. The other teachers listed over 300 other responsibilities they fulfill. Finally, almost two-thirds (65.4%) of the teachers' reported that more than one Reading Recovery teacher worked in their elementary school.

### **Researcher Background and Perspective**

Prior to being trained as a Reading Recovery teacher, I taught primary students in both private and public school settings. Questions I had about how to best help my struggling second-grade readers prompted me to seek a Reading Specialist certification from my state. Even with this degree, I still felt that I was lacking in my knowledge to help beginning readers; therefore, I approached my building principal about training in Reading Recovery. She agreed to support me in this training.

I was trained as a Reading Recovery teacher during the 2003-2004 school year using Clay's (1993) teachers in training guidebook. During the 2006-2007 school year, my school district retrained all the teachers using Clay's (2005) "Literacy Lessons Designed for Individuals" texts. For four years, I spent part of my day servicing four Reading Recovery students in my building. Each of those years, I also had another Reading Recovery teacher in my building who serviced three students at a time. The questions I had about the students I serviced, who did not discontinue the program, led me to pursue my Ph.D. in literacy and teaching and teacher education. It is my hope that this study fosters a conversation on running records and improves their use so that more students find success in literacy learning.

## **Data Source and Instrumentation**

The data source for this study was a researcher-created paper questionnaire. The need to create the data source stemmed from finding no previous studies that asked teachers to report on their beliefs about and uses of running records. DeVellis (2012) claims:

The more researchers know about the phenomena in which they are interested, the abstract relationships that exist among the hypothetical constructs, and the quantitative tools available to them, the better equipped they are to develop reliable, valid, and usable scales. (p. 9)

With this in mind, I began the questionnaire creation process with a semester-long self-study into my use of running records with a first-grade student identified as having difficulty in reading. DeVellis (2012) suggests the following eight steps to developing a measurement: (a) determine clearly what is to be measured, (b) generate an item pool, (c) choose the measurement format, (d) have experts review item pool, (e) consider inclusion of validation items, (f) administer items to a sample, (g) evaluate the items, and (h) optimize scale length. All eight steps were addressed in the creation of my questionnaire and described below.

First, I began by clearly determining my desire to create a measurement tool that could be used to ask multiple Reading Recovery teachers about their beliefs about and uses of running records. Second, I began a semester-long, self-study research project in order to help me generate an item pool. For five weeks, I met daily with Thomas (pseudonym), a first grader identified as having difficulties with reading. We met for 30



minutes a day in his school cafeteria. I closely followed the structure of a typical Reading Recovery lesson framework beginning with reading familiar books, followed by taking a running record on the new book introduced yesterday, leading into word work, writing, and arranging a cut up sentence, before ending the lesson with an introduction to a new book and the reading of this book. In all, Thomas received 23 daily lessons. The two research questions that guided my self-study were as follows: (a) How does the use of daily running records inform my instruction tutoring a first grader identified as struggling in literacy? and (b) How can the lessons I learn from my use of running records be used to ask Reading Recovery teachers about their use?

I used five data collection tools to help me answer the research questions listed above and generate an item pool. These included (a) an Observation Survey (Clay, 2002), (b) lesson records, (c) running records, (d) researcher journal, and (e) email communications. The analysis of the data helped me to see clearly the important roles that running records play before, during, and after lessons. Combing through my researcher journal and email communications with my critical friends, the classroom teacher, and the reading teacher, I compiled a list of possible questions to ask Reading Recovery teachers on their use of running records. After eliminating the repeated questions, I began to see how the questions could be organized into four categories: (a) Reading Recovery lesson framework questions, (b) planning Reading Recovery lesson questions, (c) specific running record questions, and (d) teacher demographic questions. As I sorted each question into one of these categories, I moved into what DeVellis (2012) identified as the third step of measurement development, to determine the measurement

format. At the end of the process, I had a two-page, double-sided questionnaire consisting of 19 questions written using both open and closed questions.

As recommended by DeVellis (2012), I next shared my questionnaire draft with a panel of experts for their review. The three members of my dissertation committee were chosen for this initial review. One member had expertise in item writing, survey development, and survey formatting while the other two members were literacy experts familiar with running record use. They provided feedback, and I made the revisions to the questionnaire. Following another recommendation of DeVellis, validation items were included in the questionnaire to help detect flaws. These validation items begin the questionnaire and ask teachers to reflect on Reading Recovery lessons as a whole before narrowing their responses to the reflection of running records, which are just a small component of the daily lesson.

The first draft of the questionnaire was taken to the 2012 National Reading Recovery Conference in Columbus, Ohio where 10 Reading Recovery teachers from across the country were randomly asked and agreed to help pilot the questionnaire. After completing the questionnaire, teachers were questioned about the clarity of the questions and the experience of completing it. Based on these oral and written responses, the questionnaire items were evaluated and revised. Some revisions included converting open-ended questions to closed questions using the respondents repeated responses, deleting questions that did not produce significant knowledge, revising questions for clarity, and adding questions that the first analysis helped to spark.

The revision resulted in producing a two-page, double-sided questionnaire with 29 open- and closed-ended questions. This revised questionnaire was then given to a Ph.D. candidate and a practicing Reading Recovery teacher. No problems or suggestions for improvement were given; therefore, no additional revisions were made to the questionnaire.

The new questionnaire was taken to the 2013 National Reading Recovery Conference in Columbus, Ohio where five Reading Recovery teachers from across the country were randomly asked and agreed to help pilot the questionnaire. Again, after completion, these teachers were asked for their feedback on the experience. All stated that the directions were clear and they understood what each question was asking of them. Some mentioned that a few of the questions were challenging to answer. For example, one question asks teachers to identify their least favorite component of the Reading Recovery lesson. Although challenging, these questions were chosen to remain as part of the questionnaire because all teachers understood the directions and the answers would provide important insights. Following these teachers' reviews, feedback was also obtained from a former Reading Recovery teacher leader in Ireland who is also a current Ph.D. student. No changes to the questionnaire were identified from the second piloting, resulting in a final version of the created questionnaire.

The final questionnaire consisted of two before-lesson questions, eight during-lesson questions, seven after-lesson questions, and 12 demographic questions (see Appendix B). It contains open-ended, closed-ended, and semi closed-ended questions allowing for a mixed method analysis. Creswell and Plano Clark (2007) explained, "By

mixing the datasets, the researcher provides a better understanding of the problem than if either dataset had been used alone” (p. 7). Within mixed methods, a triangulation design was implemented because the design involves a one-phase questionnaire with varying question formats that are intended “to obtain different but complementary data on the same topic” (Morse, 1991, p. 122).

In the questionnaire, closed-ended and semi closed-ended questions were used to help address the ways in which Reading Recovery teachers report using their daily running records to help them individualize instruction for their first-grade students. Meanwhile, open-ended questions help inform the extent to which Reading Recovery teachers believe running records aid them in individualizing instruction for their first-grade students. Concurrently, answers from open-ended and closed-ended questions were used to explore differences in Reading Recovery teachers’ beliefs based on selected demographics. The goal of having a questionnaire with multiple question formats allows for a new topic, such as this one, to be explored in greater depth.

### **Data Collection Procedures**

Dillman, Smyth, and Christian (2009) label these “turbulent times” for researchers wishing to implement research studies using survey methods. Researchers using surveys must think critically about the advantages and disadvantages to the various modes of surveys and tailor these to their participants. After much reflection, I decided that using a paper questionnaire provided to Reading Recovery teachers during their already scheduled professional development would yield the greatest response rate. Practicing

Reading Recovery teachers meet with their Reading Recovery teacher leaders for professional development approximately five times throughout the school year.

I mailed a Teacher Leader Script (see Appendix D), research notes (see Appendix E), paper copies of the questionnaire, leveled readers, and a self-addressed stamped priority mail envelope to Reading Recovery teacher leaders who submitted a letter of support. The mailing process began in October 2013 and concluded in January 2014. The decision to wait until October to begin mailing the materials was made to ensure that the selection process for Reading Recovery students was completed and all teachers were in lessons with these students. This would provide the needed context for teachers to reflect accurately on their beliefs and daily uses of running records. Research notes and both used and unused paper questionnaires were returned in the provided envelope as soon as the professional development sessions were completed for the site. The first set of questionnaires was returned in October 2013, and the last set was returned in March 2014.

Once the Reading Recovery teacher leaders received the study materials, I asked them to provide 20 minutes during their upcoming professional development session for teachers to participate. The study procedure was outlined in the teacher leader script and began with the teacher leader passing a questionnaire to each Reading Recovery teacher. Then, while teachers were looking at the consent form, the teacher leader read a script that introduced the student researcher, the purpose of the study, and request for participation. Participation was voluntary and teachers who did not wish to participate simply turned in a blank questionnaire. Each teacher who turned in a completed

questionnaire was given a leveled reader from Reading Reading Books, LLC as a token of appreciation. While teachers completed the questionnaires, the teacher leader made research notes about the process, which included indicating the date, topic, and number of teachers present at the session along with teacher questions, comments, or additional information about the data collection process.

Data collection procedures were the same in the U.S. and Republic of Ireland. Two questionnaire items on the last page of the questionnaire were adapted for Reading Recovery teachers in Ireland. Because Ireland does not have a degree that a teacher can earn to become a reading specialist, item 28 was changed. A reading specialist degree does not exist in Ireland because all primary teachers are considered qualified to teach in any setting. Some teachers in Ireland chose to complete a higher diploma in learning support education. As a result, item 28 was changed to ask teachers if they had a higher diploma in learning support education. Also, because Ireland is not divided up into states, “state” was replaced with “county” for teachers willing to discuss their experiences and teaching practices (see Appendix F).

The privacy and confidentiality of the participants was protected by not asking them to write their name on the questionnaires. The last question of the questionnaire provided teachers with an opportunity to write their name, state/county, and email address if they were willing to be contacted individually to be asked more about their teaching practices. This contact information is for follow-up studies and is not used for this study. Once received, an individual and unique identification code was placed at the top of each page of each survey. Identification codes along with contact information for

interested teachers were entered into a separate Excel spreadsheet to which the student researcher has sole access.

I entered data into the computer using Statistical Package for the Social Sciences (SPSS) software. After entering a complete set of site data, I reviewed each entry for accuracy. Then, a Ph.D. student, not affiliated with the research, performed a 10% check of the data to ensure accuracy. This check found no errors in data entry. Surveys were scanned onto a thumb drive and given to the dissertation chair to be stored in a locked filing cabinet on university property per IRB regulations. Paper copies of the questionnaires are stored in a locked firebox at my house.

### **Data Analysis Procedures**

The questionnaire results were analyzed using a triangulation mixed method design with the quantitative and the qualitative data viewed as having equal importance within the study framework (Creswell, 2008). Each questionnaire item was analyzed separately at first in the order they appeared on the questionnaire before combining the findings to provide for interpretation (see Table 3). Memos (Maxwell, 2005) were written for each questionnaire item as it was analyzed to capture the data analysis process and aid in interpretation.

Table 3

*Data Analysis Procedures by Research Question and Questionnaire Item*

Research question	Items analyzed	
	Qualitatively	Quantitatively

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Beliefs about running records	4, 6, 8, 11	2, 3, 5, 7, 9, 12, 13, 27
Reported ways of use	4, 6, 8, 11, 14, 17	2, 12, 13, 16, 17, 27
Teacher differences	1, 11, 15, 22, 26	12, 13, 16, 18, 19, 21, 23, 24, 25, 28

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**Qualitative coding methods.** The coding process enables researchers to make sense out of their text data and involves (a) dividing text into segments, (b) labeling segments with codes, (c) examining codes for overlap, and (d) collapsing codes into broad themes (Creswell, 2008). I explored open-ended questionnaire items using inductive analysis and a variety of different coding methods. Inductive analysis was chosen because little is known about Reading Recovery teachers’ beliefs about and uses of running records. Inductive codes are defined as “codes that are generated by a researcher by directly examining the data” (Johnson & Christensen, 2004, p. 508). Thus, this method allows for the Reading Recovery teachers’ responses to be used to inform each research question.

I used the computer software HyperRESEARCH to help facilitate the coding process. HyperRESEARCH is a cross-platform software designed to aid qualitative analysis. For this study, I organized the 11 open-ended responses into individual documents by questionnaire item. Each document became a source file in HyperRESEARCH that included participant identification numbers linked to individual responses. I also analyzed two additional open-ended questionnaire items using SPSS



computer software. What follows is a description of the various types of codes used within inductive analysis.

***Descriptive coding.*** Descriptive codes “reflect themes or patterns that are obvious on the surface or are stated directly by research subjects...they often answer who, what, where, when, and how types of questions” (Cope, 2010, p. 283). These codes serve to describe the data by sorting responses into categories and frequencies that can be reported. Seven questionnaire items were coded using descriptive coding (see Table 4). In each of these cases, responses were read and for each new topic mentioned a code was created. After completing the first round of coding, the code list was reviewed for overlap and condensed. Then the codes were reviewed for accuracy.

Table 4

*Descriptive Coding Items*

Item	Question
1	When do you plan for your Reading Recovery lessons?
11	If I say “running record,” you feel _____
14	What other notations have you found helpful to make on your running records that are not listed above?
17	If you answered yes, please complete to following table (Who? How often?)
20	How did you learn about the opportunity for your current role?
22	If you answered no, please describe your first experience with running records
26	Besides Reading Recovery, what are your other responsibilities at your school?

*Analytical coding.* Analytical codes are created based on the thinking of the researcher and “dig deeper into the processes and context of phrases or actions” (Cope, 2010, p. 283). These codes require interpretation of participants’ statements and are not as straightforward to categorize as descriptive codes. Seven questionnaire items were coded in this manner (see Table 5). In each of these cases, participants’ statements were read and codes were created based on the researcher’s reflection. To support the reliability and validity in coding, a codebook was created that listed each code and its description. The statements, codes, and codebook were reviewed until clear distinctions could be made between codes. In total, three codebooks were created for the seven questionnaire items (see Table 5).

Because analytical coding is not straightforward, intercoder reliability was sought. A member of my dissertation committee, familiar with early reading but an outsider to Reading Recovery, served in this position. I provided her with three codebooks (see Appendices G, I, and K) along with a sampling of statements from each item. In selection of the items for sampling I chose 10 percent and the most difficult cases to be reviewed so I could ensure that they were coded correctly. When independent coding was completed codes were returned to me for review. We discussed discrepancies and, when needed, changes were made to the codebook for clarification. This cycle was repeated at twice for each of these codebooks. Two codebooks (see Appendices H and J) were shared and reviewed by this intercoder but reliability was not established.

Table 5

*Analytical Coding Items*

Item	Appendix	Question
4	G	What do you enjoy most about the activity you circled?
6	G	What do you enjoy least about the activity you circled?
8	G	Why do you believe that the item circled above plays the greatest role in your students' success?
11	H	If I say "running record," you feel _____
15	I	Below, write a question or comment for the teacher who took this running record
17	J	If you answered yes, please complete to following table (Why?)

***A priori coding.*** A priori codes are different from inductive codes because the code creation does not come from the data. These are preexisting codes that are "used when a researcher is trying to replicate or extend a certain line of previous research" (Johnson & Christensen, 2004, p. 508).

When reading through the responses to questionnaire item 15, Hattie and Timperley's (2011) model of feedback to enhance learning came to mind. The model was created after an extensive review of the literature on feedback and classifies feedback into four categories: (a) task level, (b) process level, (c) self-regulation, and (d) self level, with some categories having greater effectiveness on learning than others. By using these preexisting codes, I believed a greater analysis of Reading Recovery teachers' responses could be conducted. As a result, besides using analytical coding for item 15, a priori

coding was used as well. Like analytical coding, a codebook was created (see Appendix K) and intercoder reliability was established using the same method.

**Quantitative coding methods.** Closed-ended and semi closed-ended items were analyzed quantitatively. Research questions one and two both asked descriptive questions so, as a result, descriptive statistics were used in reporting the findings. Descriptive statistics are commonly used in survey research because they allow researchers to summarize the characteristics of the data collected (Dimitrov, 2008). In order to report the descriptive statistics collected, I entered the questionnaire data into SPSS. This process involved transforming the data into both nominal and ordinal scales. Nominal scales “classify persons (or objects) into mutually exclusive categories” and the numbers “serve only as ‘names’ of such categories” (Dimitrov, 2008, p. 6). As a result, frequency tables were used to report these data and no arithmetic operations were conducted. Frequency tables were also used to summarize data collected using ordinal scales as several of my questions ask teachers to rank order their items they find most valuable. The answers to these items were categorized as ordinal data. I used frequency, chi-square test for association, and Kruskal-Wallis testing with these variables (see Table 6 for quantitative scales used).

Table 6

*Quantitative Scales Used*

Item	Scale	Question
2	Ordinal	Order the 3 items you find most valuable in making instructional plans

3	Nominal	Circle your favorite activity in Reading Recovery lessons
5	Nominal	Circle your least favorite activity in Reading Recovery lessons
7	Nominal	Circle the activity that you believe plays the greatest role in your students' success
9	Nominal	Circle the one activity that you are most likely to skip
12	Ordinal	Order the 3 items you find most valuable in a running record
13	Ordinal	Order the 3 items you find least valuable in a running record
16	Nominal	Do you share your running records with others
18	Nominal	Circle your current role
19	Nominal	How long have you been in your current role
21	Nominal	Was your Reading Recovery training your first experience with running records
25	Nominal	How many Reading Recovery teachers does your school have
27	Ordinal	Circle how often you use running records in your other responsibilities
28	Nominal	Are you are certified reading specialist in your state

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I was able to interpret four questionnaire items on an interval scale for the participants. In all four of these items, teachers reported numbers. These items were (a) how long have you been in your current role, (b) how many Reading Recovery students did you serve last year, (c) how many of those students successfully discontinued Reading Recovery, and (d) how many Reading Recovery teachers does your school have. For these items, I was able to conduct arithmetic operations before transforming the data into a nominal scale to help me answer research question number three.

**Search for differences amongst demographic characteristics.** Research question number three sought to determine whether there are statistically significant differences in Reading Recovery teachers' beliefs and uses of running records based on selected demographic characteristics. I explored this question with six demographic features: (a) work location, (b) years of experience in Reading Recovery, (c) reading specialist certification, (d) experience with running records, (e) number of Reading Recovery teachers in the building, and (f) discontinue rates.

I performed a chi-square goodness of fit test with each demographic characteristic to determine whether the respondents were equally distributed among each demographic category as needed to conduct the chi-square test for association. The following hypotheses guided this test with an alpha level of .05 for statistical tests:

H<sub>0</sub>: Responses are equally distributed among each demographic category.

H<sub>a</sub>: Responses are not equally distributed among each demographic category.

Results of each chi-square test follow the description of each demographic characteristic. These results helped me to determine whether parametric testing is permissible with each variable. Because most of the data collected in my survey were categorical, parametric testing was seldom used. To discover differences in homogeneously grouped demographics with other categorical variables, I conducted cross-tabulations along with the chi-square test for association. For heterogeneously grouped demographics with ordinal variables, the Kruskal-Wallis one-way analysis of variance is conducted. When the data permitted neither test to be used, I reported descriptive statistics.

**Work location.** The work location demographic is comprised of eight unequal groupings, one for each site that participated (see Table 7). There were more participants from the United States ( $n = 168$ ) than from Ireland ( $n = 61$ ). The chi-square goodness-of-fit revealed that eight sites are not equally distributed in the population,  $\chi^2 (7) = 98.74, p < .01$ . As a result, nonparametric testing can only be conducted with this variable.

Table 7

*Participants per Site*

Site	$n$
Midwest one	4
Midwest two	6
Northeast three	20
Northeast four	22
Midwest five	27
Midwest six	43
Northeast seven	46
Ireland eight	61

**Years of experience.** The years of experience in Reading Recovery demographic is made up of responses from 227 respondents. Years of experience ranged from in training ( $n = 11$ ) to 22 years ( $M = 7.40, SD = 5.61$ ). The median years of experience is five years and the mode in this category is three years. To aid in some analysis, I

grouped teachers' years of experience into six categories: (a) in-training, (b) 1-2 years, (c) 3-5 years, (d) 6-10 years, (e) 11-15 years, and (f) over 16 years. The chi-square goodness-of-fit revealed that the six groupings for years of experience are not equally distributed,  $\chi^2(5) = 78.21, p < .01$  so the grouping was revised. See Table 8 for the new grouping along with the frequencies within each category. The chi-square goodness-of-fit for this second grouping revealed that the years of experience are equally distributed when grouped in this manner,  $\chi^2(5) = 3.56, p = .61$ . As a result, it is permissible to conduct parametric testing with this variable.

Table 8

*Years of Experience Within Categorical Groups*

Categorical Grouping	<i>n</i>
In-Training – 2 years	38
3 years	36
4 - 5 years	47
6 - 10 years	38
11 - 15 years	37
Over 16 years	31

***Reading specialist certification.*** The reading specialist demographic is comprised of two groupings, those who report having a reading specialist certification or the equivalent in Ireland ( $n = 123$ ) and those who do not hold this certification ( $n = 103$ ).



Two participants did not answer this question. The chi-square goodness-of-fit revealed that the two groups are equally distributed in the population,  $\chi^2(1) = 1.77, p = .18$ . As a result, parametric testing is conducted with this variable.

***Experience with running records prior to Reading Recovery training.*** Similarly, teachers' experience with running records is classified into two categorical groups, those who had previous experience with running records ( $n = 115$ ) prior to being trained in Reading Recovery and those whose first experience with running records was in Reading Recovery training ( $n = 113$ ). Those who had prior experience with running records were asked to describe their first experience with them. I tallied the responses ( $n = 109$ ) to this open-ended question and recorded the frequency of each response displayed on Table 9.

Table 9

*Prior Experience with Running Records*

Grouping	<i>n</i>
College Coursework	45
Assessment Training	22
Classroom Teaching	14
Literacy Collaborative	11
Professional Development	11
Reading Teacher	6

The chi-square goodness-of-fit test revealed that the groups are equally distributed in the population,  $\chi^2 (1) = 0.02, p = .90$ . As a result, parametric testing can be conducted with this variable.

***Number of Reading Recovery teachers in a building.*** The number of Reading Recovery teachers in a building demographic had three categorical groupings: (a) one teacher ( $n = 77$ ), (b) two teachers ( $n = 91$ ), and (c) more than two teachers ( $n = 58$ ). Two teachers did not respond to this question. The greatest number of Reading Recovery teachers reported in a building was six with the mode being two teachers ( $M = 1.98, SD = .95$ ). The chi-square goodness-of-fit revealed that the three groups are not equally distributed in the population,  $\chi^2 (2) = 8.19, p = .02$ . As a result, only nonparametric testing can be conducted with this variable.

***Teachers' discontinue rates.*** The final demographic explored is the reported discontinue rate of students. Teachers were asked to report the number of students they served in the previous year and then how many of these students successfully discontinued from the program. This question was not applicable for teachers in-training ( $n = 10$ ) or teachers who were on maternity leave or did not have funding for their position the year prior ( $n = 17$ ). The trained Reading Recovery teachers who responded ( $n = 201$ ) reported teaching 1,592 students. The mode and median for the number of students taught in a year was eight and the maximum number reported was 17 ( $M = 7.92, SD = 2.03$ ). Fewer teachers reported how many students they successfully discontinued the previous year ( $n = 189$ ). Of the 1,483 students these teachers taught, 1057 students (71%) successfully discontinued their series of lessons. The mode for this group was

seven students and the maximum discontinued amount was 12 students ( $M = 5.59$ ,  $SD = 2.40$ ).

The discontinue rate demographic was calculated by dividing the number of reported discontinued students by the reported number of students served for each teacher with complete data and included two teachers who simply reported they discontinued all of their students ( $n = 191$ ). Percentages were then classified into five categorical groupings. See Table 10 for a list of these categories along with the frequencies.

Table 10

*Discontinue Rate Demographic Groupings and Frequencies*

Discontinue Rates	<i>n</i>
Less than 25%	12
25 – 49%	17
50 – 74%	48
75 – 99%	67
100%	47

The chi-square goodness-of-fit test revealed that the discontinue groups are not equally distributed,  $\chi^2(4) = 55.99$ ,  $p < .01$ . As a result, only nonparametric testing is conducted with this variable.

***Interpretation.*** In the design of my questionnaire, I paired most quantitative questions with a qualitative question. Teachers would quantitatively choose a response

and then be provided an opportunity to explain the reasoning through a follow-up qualitative question. As a result, interpretation involved bringing together the quantitative analysis with its qualitative partner to tell the story of 228 Reading Recovery teachers from eight sites and two countries. In the interpretation of the data both the qualitative and quantitative data were viewed as playing equally important roles to helping determine these teachers' beliefs about and uses of running records. Using both types of data served to deepen the interpretation by not only identifying teachers' preferences but also allowing teachers to explain the reasons for the preferences.

### **Limitations**

Although all efforts were made to minimize them, like all research, this study has limitations. The largest limitation is that it contains both coverage errors and sampling errors. Due to approval limitations, not all Reading Recovery teachers were provided the opportunity to respond to the questionnaire, and not all Reading Recovery teachers who were given the questionnaire took it. These errors limit the ability to generalize the findings to all Reading Recovery teachers. To improve the ability to generalize, Reading Recovery teachers from multiple Reading Recovery sites were surveyed.

An extensive review of the literature found that research into teachers' beliefs about and uses of running records had not been previously explored. This leads to another possible limitation of this study because there are no prior studies on which to build, it may be that the correct questions are not asked or that they are not asked in the correct format to fully explore the topic. To reduce the likelihood of this limitation, DeVellis' (2012) eight steps for measurement development were followed to include (a)

determining clearly what is to be measured, (b) generating and item pool, (c) choosing a measurement format, (d) having experts review item pool, (e) considering inclusion of validation items, (f) administering items to a sample, (g) evaluating the items, and (h) optimizing scale length. In addition, although my questionnaire was piloted and went through several revisions, validity was not measured with a large sample of participants prior to conducting the study due to approval difficulties and a reliability statistic was not reported.

Finally, the questionnaire limits responses to Reading Recovery teachers reported use of running records and does not measure their actual use. As a result, the findings must be interpreted with caution, since these teachers may know what they should answer, which may not be the same as their actual practices. In this regard, teachers were reminded of the anonymity of their responses and that their information was not shared with their teacher leader.

### **Scholarly Significance**

Despite the limitations listed above, this study signifies an important first step in learning about how expert teachers use a common assessment tool to help them individualize instruction for reading. Students' reading abilities play fundamental roles in future educational achievements, so efforts should be made to ensure early success (Anderson, Hiebert, Scott, Wilkinson, & The Commission on Reading, 1985; Lyon, 1997; Reschly, 2010). Unfortunately, there are no easy answers when it comes to how to enable all students to find early reading success. Because all learners are different, each requires a different path to help them progress. Approaching the domain of reading with

a one-size-fits-all methodology is not helpful, as it reaches very few students.

Assessment tools, like running records, are needed for teachers to observe how students are approaching text reading so that meaningful educational opportunities can be planned.

Although running records are widely used, little is known about how teachers are interpreting the data they collect. Simply incorporating running records into practice will not help ensure more students find reading success. What is important about running records, like all assessment, is what teachers do with the data they collect. In that regard, little is known about how teachers interpret running record data. Most research studies involving running records have used them as the dependent variable. Afflerbach and Cho (2011) found this is a common treatment of classroom assessments and encouraged future researchers to think differently: “Research is needed in which reading assessment is not the measure of significance, but the object of investigation” (p. 508). This investigation, then, was designed to heed this advice and begin to fill the gap in the literature on classroom assessment. I hope the results will foster a conversation as to the value and use of running records to improve use and implementation so that more students can be provided with excellent early literacy instruction that meets their needs.

## **CHAPTER FOUR**

This research study explored Reading Recovery teachers' uses of and beliefs about the role running records play in helping them individualize instruction with their first-grade students. This chapter reports the results from the data analyses described in Chapter Three. I begin this chapter with a description of the teachers' overall opinion of the running record tool. After sharing what was learned about the teachers' global views of running records, deeper analysis is reported by compartmentalizing the findings within three different contexts: (a) before, (b) during, and (c) after Reading Recovery lessons. Organizing the data in this way highlights the distinct purposes of running records within each context and allows teachers' thoughts about these purposes to be shared. Each context will begin with a brief explanation, followed by teachers' reported beliefs and uses of running records, and will conclude by exploring possible differences in teachers' beliefs and uses based on demographic information. The chapter concludes with a short summary of the results.

### **Teachers' Global View of Running Records**

Running records are a required component of each Reading Recovery lesson. They are designed for use as an observation tool to record a student's oral reading. The results of the observation should be used to guide teaching, assess difficulty, and capture progress (Clay, 2013). One of the first skills Reading Recovery teachers learn in their





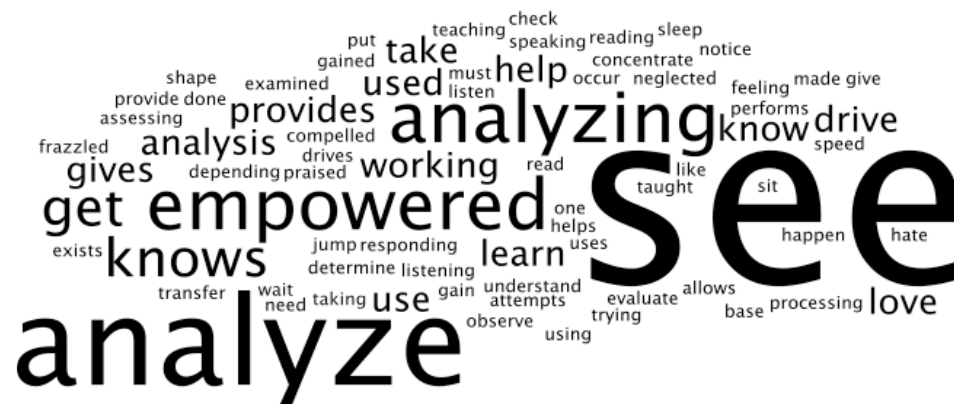
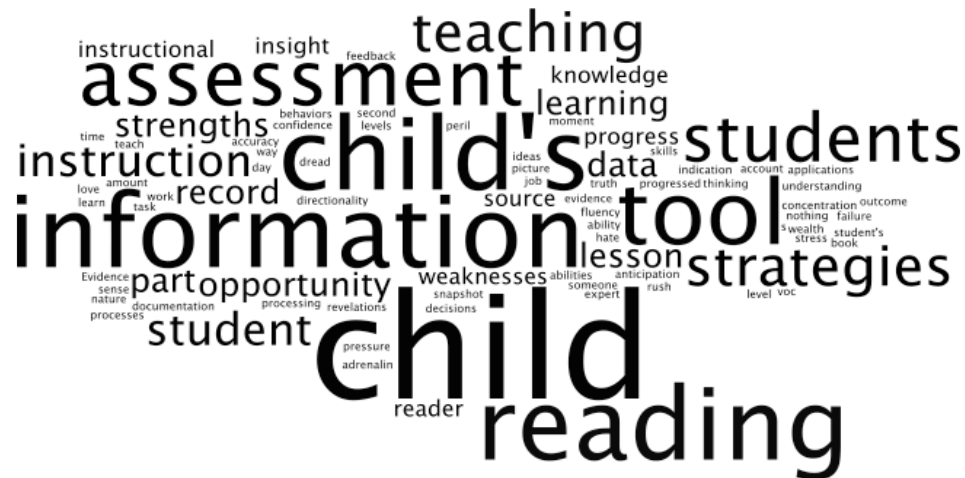


Figure 3. Word cloud of verbs used by teachers to describe their feelings about running records. In total 145 words were identified using this part of speech.

**Teachers' feelings about running records.** After I coded responses based on parts of speech, I coded them again based on types of feelings expressed, uses, and beliefs about running records. Half of the responses collected were coded as a type of feeling and most (37%) of these feelings were positive. Teachers filled in the blank with

words like “excited,” “happy,” “great,” “curious,” “interested,” and “comfortable.” Other comments (28%) pointed to these teachers feeling like experts in using this tool. Here teachers used words such as “confident,” “experienced,” and “second nature.” One teacher even wrote in “I feel like I could do one in my sleep!” Several teachers (28%) shared neutral feelings about running records using words such as “ok,” “fine,” and “its part of my job.” Finally, a few teachers (7%) listed negative comments about running records. These negative comments expressed the stress that they feel upon hearing the word running record. Teachers wrote in that they felt “frazzled,” “queasy,” “rushed,” and “pressure.”

**Uses of running records discovered.** Besides feelings, 29% of the teachers also filled in the blank by sharing their uses of running records. Most of these comments centered around feeling informed. They used words such as “insightful,” “empowered,” and “knowledgeable” as a result of the data collected. Informed feelings were often followed by comments about using knowledge gained to inform instruction. As one teacher explained, “I feel it helps me ‘shape’ my instruction and feedback.” Other comments on teachers’ use of running records shed light into what information they believe they gain as a result of analyzing the data. For example, one teacher wrote, “I feel I have an accurate record of processes a particular child is using and how independent he/she is.” Another teacher explained, “I feel interested in the child’s processing, strengths, and needs.”

**Beliefs about running records discovered.** Some of the teachers (21%) expressed their beliefs about running records and the roles running records play. These

beliefs were all positive and contained words such as “good,” “valuable,” “useful,” “important,” “meaningful,” and “worthwhile.” One teacher expressed her beliefs, “I feel thankful to have an assessment daily that allows me to understand and see the child’s learning and progress.” Another teacher wrote that she felt “it is central in the lesson.”

**Teachers’ differences in feelings about running records.** Although chi-square testing revealed no significant differences among teachers, my interest in studying teacher differences prompted me to further explore descriptive statistics for the teachers (35%) who expressed neutral ( $n = 26$ ) and negative ( $n = 8$ ) feelings associated with the word running record. Five of the eight participating sites had teachers with neutral feelings about the word running record. Teachers’ years of experience ranged from in-training to 20 years ( $M = 7.19$ ,  $Median = 5.50$ ,  $Mode = 3$ ). Most teachers (65%) reported having reading specialist certification and running record experience prior to Reading Recovery training was nearly evenly split. Discontinue rates for these teachers were high with nine (35%) reporting successfully discontinuing all their students the prior year and six (23%) reporting successfully discontinuing more than 75% of their students. The majority of these teachers (62%) had other Reading Recovery teachers working in their buildings.

Six of the eight participating sites had a teacher with a negative feeling to the word running record. These teachers’ years of experience ranged from two to nine years ( $M = 5.25$ ,  $SD = 1.13$ ). A majority of the teachers (75%) reported having a reading specialist certification, and running record experience prior to Reading Recovery training was evenly split. Three teachers did not report their discontinuing rate, but, of those who

did, most (60%) reported a discontinuing rate between 50% and 74% with one teacher falling below this category and one teacher above. Finally, teachers reported working both alone (38%) in their buildings and with other Reading Recovery teachers (62%).

**Teachers' interpretation of an unscored running record.** Another way I attempted to discover teachers' global views of running records was by providing them with an authentic unscored running record to skim and then provide feedback to the teacher who collected the data. I wondered how teachers would respond to this open-ended task. Would they score the running record? What would they notice about the running record provided? Again, 194 teachers responded to this question, and I analyzed responses in two ways. First, these responses were categorized based on the type of feedback it would provide the teacher, who gave the running record. Then, questions and comments were reviewed based on the specificity of their responses to the student's needs.

***Teacher feedback.*** After teachers skimmed the unscored running record, they were asked to write a question or comment for the teacher who took the running record. I used Hattie and Timperley's (2007) model and their research on feedback to help me evaluate the quality of the feedback the teachers provided. Hattie and Timperley (2007) found that feedback given in the process and reflection domains are more valuable to learning, while feedback in the praise and task domains do little to influence learning. Table 11 shows the frequency of responses within each domain and is organized from least to most helpful in influencing learning.

Table 11

*Feedback Responses*

Type of feedback	Frequency	Percentage
Praise	2	1%
Task comment	49	21%
Task question	65	28%
Process comment	53	23%
Process question	29	13%
Reflection comment	1	1%
Reflection question	31	13%

Items categorized in the praise and task domains were superficial in nature and could be applied to any running record. “Well done for getting it down!” is an example coded as a praise comment while “What did the reading sound like?” provides an example of a task domain question. Process domain codes took into account the specific running record shown as teachers reported on what they noticed. “It appears that the child lost meaning on p. 14,” illustrates a process comment. The most sophisticated feedback was categorized in the reflection domain. In this domain, teachers asked questions about the patterns of behavior observed with the student. For example, one teacher asked “is the child able to consistently attend to 1:1 with print and keep eyes on text and print?” Interestingly, the one Reading Recovery teacher leader who participated

in the study was identified as making the sole reflection comment when she replied, “talk about the evidence you have gathered about this child’s control of looking at print.”

***Teacher differences in feedback.*** Chi-square testing of teacher feedback and selected demographics revealed no significant differences; however, I was curious to learn more about the group of teachers who were able to provide the highest level of feedback. The teachers ( $n = 32$ ) who provided reflective feedback worked in six of the eight sites and their years of experience ranged from in-training to 20 years ( $M = 9.09$ ,  $Median = 8.50$ ,  $Mode = 3$ ). Half of the teachers held reading specialist certification ( $n = 16$ ), and half of the teachers ( $n = 16$ ) had experience with running records prior to being trained in Reading Recovery. These teachers’ discontinue rates ranged from less than 25% to 100% with the majority (31%) reporting rates that fell in the 75% to 99% range.

***Interpretation of student’s needs.*** While the first coding method allowed me to evaluate the quality of the feedback responses given to the teacher who took the running record, the second coding method allowed me to evaluate the level of detail each teacher gained about the student from glancing at the unscored running record. To evaluate the level of detail gained, a continuum of specificity was created (see Appendix I).

At the lowest end, comments were labeled as generic (13%) and could be applied to any running record reviewed. Among these comments were the following: “What will your teaching point be?” or “How did the reading sound?” Next on the continuum were questions or comments about notations (16%) found in the running record. Here teachers asked why the running record was not scored, what dashes meant, or made note of the non-standardized notation written for when the child checked the picture. At a higher

level of analysis, there are specific questions and comments. These specific responses (16%) are relevant to the running record shown but only note the child's meaning making and syntax use and do not address the child's main weakness of neglecting visual cues.

Finally, the majority of the responses (57%) fell in the highest level on the continuum. These responses identified the child's need to attend to visual information in the text, and some of the responses (29%) pinpointed exactly what the child needed to do next to improve his reading (e.g., work more on one-to-one matching). What is interesting about all the responses was that none of the teachers took the time to score the running record presented. They were able to come to their conclusions of the child's reading needs based on a glance at a sheet of paper containing a few marks without having to meet with the child or to talk to the teacher.

***Teacher differences in interpretation of student's needs.*** Again, chi-square testing for this item and select demographics revealed no significant differences, yet, I wanted to know more about the group of teachers who were able to identify the needs of the reader just by glancing at the running record. Descriptive statistics revealed that these teachers ( $n = 56$ ) came from seven of the eight participating sites. Their years of experience ranged from in-training to 20 years ( $M = 8.34$ ,  $Median = 6.50$ ,  $Mode = 3$ ). The majority of the teachers (61%) were reading specialists with prior experience (59%) with running records. Discontinue rates varied from less than 25% to 100% with the majority of teachers reporting a 75% to 99% rate.

**Summary of teachers' global views of running records.** To gain insight into teachers' global views of running records, they were asked to share feelings that come to

mind when they hear the word running record. I segmented the responses to this open-ended question into parts of speech and types of feelings. Teachers' feelings were overwhelmingly positive (65%).

Another method used to learn more about teachers' global views was to provide them with an authentic and unscored running record to review and comment upon. Teachers' comments were classified according to the feedback they provided to the teacher and knowledge they reported about the student. Most feedback (49%) was task-related, which previous research has found to do little to impact practices (Hattie & Timperley, 2007). When teachers' knowledge about the student was explored, the majority of the teachers (57%) were able to identify the child's needs. Chi-square testing with each variable yielded no significant results, so descriptive testing was conducted to learn more about teacher differences.

### **Before Reading Recovery Lessons**

**When teachers plan.** Few differences were found when reviewing teachers' description of when they planned; 99% of the teachers ( $n = 223$ ) reported daily planning, which includes five teachers who indicated they planned weekly in addition to planning daily. Only two of the respondents (1%) reported that they plan just once a week for their Reading Recovery lessons. The high level of agreement among participants towards daily planning eliminated the need for statistical testing into teacher differences.

To learn more about the two teachers who planned weekly, I investigated and found the only similarity to be in their years of experience. Both teachers' experience fell into the three to five years of experience grouping. These teachers differed in all other



demographics, including work location, reading specialist certification, prior experience with running records, discontinue rates, and number of Reading Recovery teachers in their buildings.

**Most valuable planning tools.** Of the 224 teachers who responded, 206 teachers (92%) listed running records as one of their top three most valuable items they use when making instructional plans. Running Records topped both the most valuable (49%) and second most valuable (35%) reference in the lists. Table 12 displays the frequency report of all seven items.

Table 12

*Most Valuable Reference Items in Planning for Reading Recovery Lessons*

Item	Frequency	Percentage
Running record	206	92%
Notes on daily lesson record	168	75%
Student writing	90	40%
Literacy lessons part 1 and 2	76	34%
Reading Recovery leveled books	68	30%
Teacher knowledge	59	26%
Becoming Literate	6	<1%

Again, the high level of agreement among participants eliminated the need for statistical testing into differences in selected demographics. An examination of the 18

teachers' responses, who did not choose running records, found that they use notes on their daily records (67%), Reading Recovery leveled books (67%), and teacher knowledge (61%) as their top three most valuable planning tools. Teacher knowledge was most frequently reported ( $n = 7$ ) as their most valuable planning tool. These teachers were from four of the eight sites and over three-fifths of them (67%) were reading specialist. Reading Recovery provided a majority of these teachers (61%) with their first experience with running records. Two-fifths of these teachers (44%) reported having 10 or more years of experience as a Reading Recovery teacher and most (61%) had more than one Reading Recovery teacher in their building. Discontinue rates varied for these teachers with most (39%) reporting falling into the 50% to 75% range.

**Summary of teachers' beliefs and uses of running records before Reading Recovery lessons.** Questions that examined teachers' planning for Reading Recovery lessons found strong agreement among participants. These teachers (99%) reported that they planned daily for each Reading Recovery lesson. This points to a pattern of teachers using information observed in the previous lesson to inform future decisions. When asked to list their three most valuable tools used for planning Reading Recovery lessons, running records came up on top (92%), followed by written notes (75%), and student writing (40%). The high level of agreement among participants eliminated the need for statistical testing into differences in select demographics. As a result, descriptive statistics were used to describe the teachers who differed from the majority of responses.

## During Reading Recovery Lessons

Eight questions on my questionnaire set out to examine teachers' beliefs about running records when compared with the other seven components: (a) familiar reading, (b) running record, (c) word work, (d) writing, (e) cut-up sentence, (f) new book introduction, and (g) attempting the new book. This section reports on which component of a Reading Recovery lesson these teachers' stated as their favorite and least favorite, which plays the greatest role in student success, and which they are most likely to skip when running short on time.

**Teachers' favorite lesson component.** Teachers were presented with the seven lesson components and asked to circle their favorite activity. Familiar reading topped this list (23%), followed by attempting the new book (21%), and then a tie between running records and writing (18%). Table 13 shows the frequency each component was mentioned as their favorite activity among the 222 Reading Recovery teachers. I did not include six teachers' responses because they circled more than one component.

Table 13

### *Favorite Component in Reading Recovery Lessons*

Component	Frequency	Percentage
Familiar reading	52	23%
Attempting the new book	48	21%
Running record	39	18%

Writing	39	18%
New book introduction	33	15%
Cut-up sentence	6	3%
Word work	5	2%

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To fit the scope of this research, I limited my investigation into the reasoning behind these choices to just exploring the 39 teachers' responses that indicated they enjoy the running record component most. The review of responses led to 59 codes being identified that help to explain reasons for enjoying the running record portion of the lesson the most. Of these 59 codes, 34 (58%) described uses of running records while 25 (42%) described beliefs about running record.

***Beliefs about running records discovered.*** Of the teachers who described beliefs (40%) most frequently reported appreciating the data that running records allow them to collect. Key words such as “record,” “picture,” “information,” and “insight” were used in these statements. One teacher illustrated her appreciation of data by stating running records “gives me a concrete idea of where the child is with precise examples of analysis.”

Comments (28%) also mentioned appreciating the observation time that running records provides them. One teacher wrote, “I can see what the student is doing without having to worry about the need to stop them.” Another teacher echoed this statement, “I know I cannot interrupt the child, I can fully observe what he/she is doing.” A smaller proportion of comments (16%) mentioned that running records “give feedback” on both teaching and student learning. This same percentage of comments (16%) showed

teachers appreciated that running records can inform them where to go next in instruction. As one teacher explained, “You get to see what you need to teach, place more emphasis on.”

*Uses of running records discovered.* As stated earlier, 34 codes (58%) were discovered investigating teachers’ responses as to why running records were their favorite lesson component. Most often, teachers (47%) reported enjoying running records for their use as an observation tool. These teachers mentioned that during the running record, they look closely at students’ reading behaviors to see what children are able to do without help. They also look to see their teaching in action. As one teacher explained, she enjoys “seeing the child remember what we have previously talked about and apply it.”

Besides running records usefulness as an observation tool, teachers (32%) reported enjoying running records for their ability to document and assess text difficulty. One teacher summarized her enjoyment of running records, “because the running record can show you what the child is doing or not doing on the text on that day.” With analyzing running records, most of these teachers reported looking to determine both students’ strengths and needs. Some teachers ( $n = 3$ ) reported enjoying finding out what types of cues students were using or neglecting while reading independently.

A final way that teachers (21%) reported using running records was to guide their teaching. These teachers used the data from a running record to find a teaching point to refer the student to immediately following the completion of the running record. As one teacher described, “I enjoy being able to use the errors they make during the running

record to teach them what they can do to become more independent.” Besides finding a teaching point, teachers ( $n = 3$ ) also use running record data to find a place to praise the student. For example, one teacher explained, “I like seeing my Reading Recovery child do something strategic that is going to move the child forward and then asking him to repeat the strategy here.”

***Teachers’ differences discovered.*** Assumptions for crosstabulations were not met for the demographics of years of experience, reading specialist certification, and prior experience with running records. Kruskal-Wallis testing for number of Reading Recovery teachers in the building,  $\chi^2 (2) = 1.62, p = .45$  and discontinue percentages,  $\chi^2 (4) = 4.48, p = .35$  revealed no significant differences between groups. Kruskal-Wallis testing for location and favorite activity revealed significant differences,  $\chi^2 (7) = 25.39, p < .01$ . Significant differences were found among eight locations (see Table 14).

Table 14

*Differences Among Location and Favorite Reading Recovery Component*

Location 1	Location 2	$\chi^2$	<i>df</i>	<i>p</i>
Midwest five	Ireland eight	9.31	1	< .01
Midwest five	Midwest one	5.67	1	.02
Northeast three	Ireland eight	8.67	1	< .01
Northeast three	Midwest one	4.83	1	.03
Northeast seven	Ireland eight	6.96	1	< .01
Northeast seven	Midwest one	4.46	1	.04

Midwest six	Ireland eight	13.68	1	< .01
Midwest six	Midwest one	5.58	1	.02

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These differences did not reveal any significant findings about locations beliefs about or uses of running records. Differences found appear to be due to coding practices. Post hoc testing found that the majority of the teachers in Ireland eight and Midwest one reported their favorite lesson activity to be familiar reading. Because this is the first item in a Reading Recovery lesson it was given a code of one. The teachers in Northeast three, Midwest five, and Midwest six reported their favorite lesson activity to be the new book introduction or attempting the new book. Because these are found at the end of lessons, the code of six or seven was given. Northeast seven's favorite lesson activity was writing, which was coded a four. No significant differences were found between location and favorite lesson item when the lesson components were compared individually between locations.

To learn more about the teachers who chose running records as their favorite activity, I explored the demographics of the 39 teachers who circled running records as their favorite activity. Their experience ranged from in-training to 19 years ( $M = 7.31$ ,  $Median = 5$ ,  $Mode = 3$ ) of experience. Teachers were from six of the eight sites and their prior experience with running records was split nearly perfectly with 19 teachers (49%) reporting experience with them and 20 teachers (51%) being new to running records. Most teachers (54%) reported having a reading specialist certification, and a majority of teachers (74%) worked with more than one Reading Recovery teacher in their building.

The discontinue rates of the teachers varied with most (59%) reporting rates of 75% or higher.

**Teachers' least favorite component.** Similarly, teachers were asked to circle their least favorite activity among the Reading Recovery lesson components. Word work topped this list (43%), followed by writing (21%), and attempting the new book (11%). Table 15 shows the frequency that each component was mentioned as the least favorite activity among the 209 Reading Recovery teachers. 17 teachers (7%) did not respond to this question, and many of these teachers wrote in that they enjoyed all the components, while two teachers (1%) circled more than one item. Running records were mentioned as their least favorite component by 14 (6%) of the teachers.

Table 15

*Least Favorite Activity in Reading Recovery Lessons*

Component	Frequency	Percentage
Word Work	89	43%
Writing	43	21%
Attempting the New Book	23	11%
Cut-Up Sentence	22	10%
Running Record	14	7%
Familiar Reading	11	5%
New Book Introduction	7	3%



To fit the scope of this research, I limited my investigation into the reasoning behind these choices to investigating the responses of the 14 teachers who indicated they disliked the running record portion of the lesson. A review of the teachers' responses to this open-ended question resulted in 22 codes. These 22 codes included 16 frustrations (72%) and six benefits (27%) of running records. These benefits were each paired with a frustration. For example one teacher explained, "It takes so much time to analyze (MSV) but it is vital to the lesson. I can really see the child's skills and my prior teaching having or not having an effect." Most of the benefits (67%) referred to teachers' beliefs about running records. They appreciate the data it collects, the feedback on their teaching, and a road map for where to go in future lessons. Two comments referred to teachers' uses of running records. They can determine what reading cues the student is using and/or neglecting and they provide the ability for teachers to see the student's skills.

***Frustrations discovered.*** The most common frustration teachers (44%) mentioned stemmed from their desire to complete the task perfectly. Teachers mentioned the desire for perfection in collecting, analyzing, and acting upon data. As one teacher explained, "Even though it provides the most detailed information, I am afraid of analyzing the information used and self-correction information wrong and not getting every detail down." Another frustration that teachers (31%) had with running records is the requirement for them to be passive observers. One teacher described, "When taking the running record I cannot prompt or teach at all (only give a told which I don't like to do)." A final frustration teachers (25%) documented for not enjoying running records concerned the time it takes to complete both during and after the lesson. One teacher

noted that it was “laborious at times to gather data, analyze, interpret, ‘score’ the running record. Very time consuming.”

***Differences discovered.*** Assumptions for crosstabulations were not met for the demographics of years of experience, reading specialist certification, and prior experience with running records. Kruskal-Wallis testing for number of teachers in the building,  $\chi^2(2) = 1.05, p = .59$  revealed no significant differences between groups. Kruskal-Wallis testing for discontinue rate and least favorite activity revealed significant differences,  $\chi^2(4) = 19.32, p < .01$ . Significant differences were found among three of the grouping categories (see Table 16). Post hoc testing did not serve to explain the differences between teachers’ choices for this item and discontinue percentages. As a result, it was determined that coding practices skewed the Kruskal-Wallis test to find statistical significances. Teachers who discontinued 100% of their students indicated that writing was their least favorite component and disliked items later in the lessons more than at the beginning. In contrast, teachers in all of the other categories chose word work to be their least favorite component and those discontinuing between 25 and 99% of their students disliked components at the beginning of the Reading Recovery lessons more than those found later in the lesson.

Table 16

*Differences Among Discontinue Percentage and Least Favorite Component*

Grouping 1	Grouping 2	$\chi^2$	<i>df</i>	<i>p</i>
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25 – 49%	100%	11.51	1	< .01
50 - 74%	100%	14.74	1	< .01
75 - 99%	100%	6.16	1	.01

Kruskal-Wallis testing for location and least favorite activity revealed significant differences,  $\chi^2(7) = 19.50, p < .01$ . Significant differences were found among four locations (see Table 17). Post hoc testing did not serve to explain why these differences were found in the Kruskal-Wallis test. Again, coding practices may have contributed to this finding. Irish teachers were more likely to choose writing as their least favorite component followed by word work and attempting the new book. Irish teachers responses were more evenly spread among all of the lesson components than U.S. teachers. U.S. teachers indicated that word work was their least favorite component and responses were less evenly spread among all of the components.

Table 17

*Differences Among Location and Least Favorite Reading Recovery Component*

Location 1	Location 2	$\chi^2$	<i>df</i>	<i>p</i>
Northeast one	Ireland eight	12.07	1	< .01
Midwest two	Ireland eight	9.32	1	< .01
Midwest five	Ireland eight	5.81	1	.02
Midwest six	Ireland eight	5.99	1	.01

Statistical significant differences found did not serve to explain findings about Reading Recovery teachers' beliefs about or uses of running records. As a result, I conducted descriptive statistics to learn more about the 14 teachers who indicate that running records were their least favorite component. Teachers' years of experience ranged from two to 17 years ( $M = 7.14$ ,  $Median = 5$ ,  $Mode = 2$ ). There was at least one teacher from every site who made the choice, and most teachers (64%) reported being reading specialists. The majority (57%) of teachers learned how to conduct running records prior to being trained as a Reading Recovery teacher and they were evenly distributed (50%) among those being the sole Reading Recovery teacher or having multiple teachers in the building. Discontinue rates varied for this group of teachers with the majority (36%) reporting rates between 50% and 75%.

**Component that plays the greatest role.** When the questionnaire asked teachers to choose which of the seven components they believe plays the greatest role in their students' success, the running record was the component most frequently chosen (33%). Table 18 shows the frequency with which each component was chosen among 220 Reading Recovery teachers. Six teachers (3%) did not respond to this question, most stating that they are all important, while four teachers circled more than one item; therefore, their responses could not be counted.

Table 18

*Component That Plays Greatest Role in Student Success in Reading Recovery Lessons*

Component	Frequency	Percentage
Running record	72	33%
Attempting the new book	50	23%
Familiar reading	48	22%
Writing	25	11%
New book introduction	14	6%
Word work	5	3%
Cut-up sentence	4	2%

Again, to fit the scope of this research, I limited my investigation to examining the responses of the 72 teachers who chose running records. I reviewed and coded their qualitative responses explaining why they believed this activity plays the greatest role in their students' success. Teachers' comments mentioned beliefs (62%) more often than uses (38%) of running records.

***Beliefs about running records discovered.*** The most frequent belief as to why running records play the greatest role in student success (58%) was that the evidence collected helps to inform the teachers what to do in future lessons. As one teacher explained, "Knowing what the child is having difficulty with or unsure of helps set the tone for future lessons, as well as, current." Another teacher shared, "The running record is a valuable guide in many ways. The data helps me to decide (sic) word work, choosing a new book, difficulty, strategies needed." Table 19 shows the complete list of beliefs as to why these teachers' believe running records play the greatest role in student success.

Table 19

*Beliefs as to Why Running Records Play Greatest Role in Student Success*

Belief	Frequency	Percentage
Data used to inform future lessons	37	58%
Collection of data on student reading	11	17%
Checks teaching and shows growth	10	16%
Freedom to observe closely	5	8%
Child sees what they can do independently	1	1%

***Uses of running records discovered.*** Several Reading Recovery teachers (38%) also gave insight into their uses of running records when they reported why they believed running records play the greatest role in their students' success. The most cited use (51%) was to assess difficulty. Among the 20 assessing difficulty comments, most (60%) mentioned looking for both student strengths and needs. This is in contrast to the four comments (29%) that mentioned just looking for student weaknesses and one comment (5%) looking for student strengths. Three comments (15%) also brought up analyzing the errors of their running records to determine if students were using meaning, structure, or visual information while they read.

Besides assessing difficulty, 11 teachers (28%) mentioned using running records to capture progress by observing (a) what the child can do without help (63%), (b) reading behaviors (27%), and (c) learning based on teaching (10%). Finally, eight

teachers (21%) discussed how they use running records to guide teaching through identifying teaching points (75%) and places to praise the student (25%).

***Teachers' differences discovered.*** Assumptions for crosstabulations were not met for the demographics of years of experience, reading specialist certification, and teachers' prior experience with running records. Kruskal-Wallis testing for number of teachers in the building,  $\chi^2 (2) = 2.17, p = .34$  and discontinue rates,  $\chi^2 (4) = 6.83, p = .15$  revealed no significant differences between groups. Kruskal-Wallis testing found significant differences in teachers choices for the component that plays the greatest role in students success and locations,  $\chi^2 (7) = 16.26, p = .02$ . Significant differences were found among seven of the grouping categories (see Table 20).

Table 20

*Differences Among Location and Plays a Greatest Role in Student Success Component*

Location 1	Location 2	$\chi^2$	<i>df</i>	<i>p</i>
Midwest five	Midwest two	5.97	1	.02
Midwest five	Northeast four	4.52	1	.03
Midwest five	Ireland eight	5.59	1	.02
Northeast three	Midwest two	4.27	1	.04
Northeast four	Midwest six	4.30	1	.04
Midwest two	Northeast seven	3.84	1	.05
Midwest two	Midwest six	6.31	1	.01
Midwest six	Ireland eight	6.33	1	.01

Post hoc testing did not help to explain the differences between teachers' choices for this item and location. Again, it was determined that coding practices skewed the Kruskal-Wallis test to determine statistical significances existed. Most teachers in Midwest five and six believed attempting the new book played the biggest role in student success, because this component is found at the end of the lessons it was given a higher coding number. In contrast, the majority of teachers in Midwest two believed familiar reading and running records played the greatest role. These items come at the beginning of the lesson and as a result got a lower number assigned to them creating a discrepancy in totals.

As a result, I explored the descriptive statistics for the 72 teachers who indicated they believe that running records are the lesson component that plays the greatest role in their students' success. These teachers reported being from seven of the eight participating sites. Their experience as Reading Recovery teachers ranged from in-training to 20 years ( $M = 8.28$ ,  $Median = 5$ ,  $Mode = 5$ ). For most of these teachers (57%), Reading Recovery was their first experience with running records. Just over half of the teachers (51%) had their reading specialist certification and over half (66%) had more than one Reading Recovery teacher in their building. Discontinue rates varied with most (28%) reporting rates between 50% and 74%.

**Lesson component most likely to be skip.** The final question I asked teachers about their beliefs regarding the components of the Reading Recovery lesson was to indicate, when they are short on time, which lesson component they would be most likely



to skip. Five teachers did not respond to this question, a few of which wrote in that they do not skip parts but instead reduce timing on parts or run long. Six teachers circled more than one item eliminating them from the count. The 217 responses collected can be viewed by referring to Table 21.

Table 21

*Most Likely Component Skipped in Reading Recovery Lessons*

Component	Frequency	Percentage
Cut-up sentence	79	36%
Word work	67	31%
Writing	33	15%
Familiar reading	32	15%
Attempting the new book	5	2%
New book introduction	1	1%
Running record	0	NIL

When I reviewed these teachers' qualitative answers as to why they chose to skip an activity, I found that they tried to cover the material in other ways. For example, many teachers mentioned sending the cut-up sentence home for homework, embedding word work into reading and writing rather than in isolation, and reducing the number of familiar books read. Because all teachers were in agreement that they would not skip the running record component, no exploration into teacher differences was needed.

**Summary of teachers' beliefs and uses of running records during Reading Recovery lessons.** Eight items on my questionnaire set out to explore teachers' beliefs about running records when compared with the other six components. These questions were paired so that teachers made a quantitative choice followed by a qualitative explanation for their decision. Teachers were asked to choose their favorite and least favorite component, the component that plays the greatest role in student success, and which component they are most likely to skip when running short on time.

For favorite component, running records was tied for third. I explored the reasons behind why teachers would choose this as a favorite component and found that the most frequently reported belief was an appreciation for the data it collects. The most frequently reported use was as an observation tool, allowing them to look closely at a student's reading behaviors to see what they can do without help.

In contrast, running records came in fifth among the least favorite components. Teachers' reasons for disliking the component mostly stemmed from their desire to complete the task perfectly and the difficulty in obtaining this goal. Several teachers listed benefits to conducting the task along with their frustration for it.

When asked which component plays the greatest role in student success, the running record component topped the list. The most frequently mentioned belief for why this component plays such a great role in student success was because the data collected is used to inform teachers what to do in future lessons. In their explanations, teachers reported that they use the data to help them access difficulty looking at both student success and needs. Finally, when asked which component they would be most likely to

skip when running short on time, all components except the running record were chosen.

Crosstabulations were attempted with each question and homogeneously grouped demographics, but testing assumptions were not met. Kruskal-Wallis testing was conducted with heterogeneously grouped demographics. Although, statistically significant differences were found post hoc testing revealed that these differences were a result of coding practices. As a result, I reported descriptive statistics for the teachers who chose running records as a response but no statistically significant differences were found.

### **After Reading Recovery Lessons**

This section reports on participants' analysis preferences and sharing of running records following a Reading Recovery lesson. I developed three questionnaire items to learn more about my participants' analysis preferences. These questions asked about their beliefs related to the most valuable running record conventions, the least valuable running record conventions, as well as any additional conventions they may use to help them learn more about their students. Then, two questionnaire items explored teachers' sharing of running records. If teachers indicated that they share running records with others, they were asked to indicate with whom, how often, and why they share these records.

#### **Teachers' beliefs related to most valuable conventions of a running record.**

On the questionnaire, I presented a list of 13 conventions recorded on running records and asked teachers to rank order the three they found most valuable. Of the 228 participants, two did not answer the question, five used checkmarks instead of numbers,

and three used ties for the number one ranking, leaving 218 participants' scores that were counted. These teachers most frequently reported (29%) errors as the convention they find most valuable in running records. See Table 22 for a complete list of items ranked as most valuable.

Table 22

*Most Valuable Convention in Running Record Analysis*

Convention	Frequency	Percentage
Errors	64	29%
Circling M, S, V	36	16%
Self-corrections	33	15%
Accuracy rate	20	9%
Additional comments	17	8%
Notes on cross-checking	17	8%
Written sentences	13	6%
Substitutions	6	3%
Tolds	5	2%
Appeals	2	1%
Directional movement	2	1%
Rereading	2	1%
Checkmarks	1	1%

Although errors were most frequently ranked number one, they were not the most commonly chosen convention. When I added the responses for all three rankings together, errors fell to the second most common response (53%) while self-corrections (63%) rose to the top spot. See Table 23 for a frequency table of all 650 responses.

Table 23

*Frequency Mentioned Among Most Valuable Conventions and All Three Rankings*

Convention	Frequency	Percentage
Self-Corrections	139	64%
Errors	116	53%
Additional Comments	78	36%
Circling M, S, V	66	30%
Notes on Cross-Checking	63	29%
Accuracy Rate	52	24%
Substitutions	40	18%
Written Sentences	39	18%
Rereading	20	9%
Tolds	18	39%
Appeals	14	6%
Directional Movement	3	1%
Checkmarks	2	1%

*Teachers' differences discovered in most valued conventions.* To discover if differences in teachers' choices in preferred conventions could be found beyond chance, I performed statistical testing. I performed crosstabulation testing with each of the variables and the demographics of years of experience, reading specialist certification, and prior experience with running records. Crosstabulation assumptions were not met with the demographics of years of experience. Assumptions were met with six of the variables and reading specialist certification (a) accuracy rate, (b) additional comments, (c) circling M, S, V, (d) errors, (e) cross-checking, and (f) self-corrections but no statistical differences were found. Assumptions were also met with six of the variables (a) accuracy rate, (b) additional comments, (c) circling M, S, V, (d) errors, (e) cross-checking, (f) self-corrections and teachers' prior experience with running records. One statistical significance was found in the category of self-corrections and teachers' first experience with running records  $\chi^2 (3) = 9.72, p = .02$ . When this difference was explored, I found that teachers who experienced running records first in Reading Recovery were least likely to mark self-corrections as their third choice.

Kruskal-Wallis testing was performed with each of the variables and the demographics of work location, discontinue rate, and number of Reading Recovery teachers in the building. In work location, significant differences were found among two of the 13 running record conventions. The first difference was found in the importance locations placed on errors  $\chi^2 (7) = 22.45, p < .01$ . Over half of the participants chose errors as a high valued convention and thirteen locations were found to have statistically

significant beliefs about their value (see Table 24). Poc hoc testing revealed which locations placed a greater emphasis on errors. While one site's emphasis on errors was not significant among all the other sites, analysis revealed site tendencies. For example, the Midwest one, five, and six placed the greatest value on errors while Northeast four and Midwest two placed the least value on errors. Participants in Northeast seven and Ireland eight were equally split between those who valued errors and those who saw more value in other conventions. Northeast three's participants were nearly divided as well but more teachers paid less attention to errors.

Table 24

*Differences Among Locations and Value of Errors*

Location 1	Emphasis	Location 2	$\chi^2$	df	p
Midwest two	<	Midwest one	6.44	1	.01
Midwest two	<	Midwest six	5.85	1	.02
Northeast three	<	Midwest one	5.33	1	.02
Northeast three	<	Midwest six	4.60	1	.03
Northeast four	<	Midwest one	7.37	1	< .01
Northeast four	<	Midwest five	7.58	1	< .01
Northeast four	<	Midwest six	8.59	1	< .01
Midwest five	>	Midwest two	5.62	1	.02
Midwest five	>	Northeast three	4.62	1	.03

Midwest five	>	Ireland eight	3.89	1	.05
Midwest six	>	Ireland eight	4.30	1	.04
Northeast seven	<	Midwest one	4.22	1	.04
Ireland eight	<	Midwest one	4.36	1	.04

The second statistical difference found was in location and the importance they placed on tolds  $\chi^2 (7) = 28.02, p < .01$ . Only 18 participants (8%) chose tolds as a high value convention and eleven locations were found to have statistically significant beliefs about the value of tolds (see Table 25). Poc hoc testing revealed which locations placed a greater or lesser emphasis on tolds. While one site's emphasis on tolds was not significant among all sites, site tendencies were discovered. In three sites, Northeast three, four, and seven, it was found that no participants chose tolds as a top valued running record convention. In Midwest one only one participant chose tolds. Midwest two was evenly split between those who valued tolds and those who did not. Meanwhile, Midwest five, Midwest six, and Ireland eight had few respondents chose tolds as a top valued component.

Table 25

*Differences Among Locations and Value of Tolds*

Location 1	Emphasis	Location 2	$\chi^2$	df	p
Midwest two	>	Midwest six	5.36	1	.02



Midwest two	>	Northeast seven	22.91	1	< .01
Midwest two	>	Ireland eight	10.44	1	< .01
Northeast three	<	Midwest one	4.50	1	.03
Northeast three	<	Midwest two	9.81	1	< .01
Northeast four	<	Midwest one	5.25	1	.02
Northeast four	<	Midwest two	11.33	1	< .01
Northeast four	<	Midwest five	4.41	1	< .01
Midwest five	>	Northeast seven	8.97	1	< .01
Northeast seven	<	Midwest six	5.63	1	.02
Northeast seven	<	Midwest one	11.00	1	< .01

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The final statistically significant difference was found in the importance teachers placed on accuracy and their discontinue rates  $\chi^2(4) = 9.96, p = .04$ . Post hoc testing to determine group differences found teachers who discontinue between 50% and 74% of their students were statistically significantly different from teachers who discontinue between 75% and 99% of their students. Teachers with higher discontinue rates tended to place less emphasis on accuracy  $\chi^2(1) = 4.75, p = .03$ . Other statistically significant differences between groups were found among teachers who discontinued between 75% and 99% of their students and those that discontinued 100%. In this comparison, teachers who discontinued 100% of their students placed a greater emphasis on accuracy than the other grouping  $\chi^2(1) = 4.88, p = .03$ . No other statistically significant comparisons were found among groups.

**Teachers' beliefs of least valued conventions.** Next, I gave teachers the same list of 13 conventions and asked them to rank order the three items they found least valuable in running record analysis. More teachers chose not to answer this question. Nine teachers did not respond, 11 teachers wrote that all items had value, three teachers used checkmarks, and one teacher wrote the same number multiple times leaving 204 respondents. Of these respondents, 23 only selected one or two items they thought held less value instead of the requested three items. These teachers most frequently reported (26%) checkmarks as the convention they find least valuable in running records. See Table 26 for a complete list of items ranked as least valuable.

Table 26

*Least Valuable Convention in Running Record Analysis*

Convention	Frequency	Percentage
Checkmarks	53	26%
Written sentence	31	15%
Tolds	27	13%
Accuracy rate	22	11%
Directional movement	22	11%
Appeals	16	8%
Circling M, S, V	9	4%
Notes on cross-checking	9	4%
Additional comments	7	3%

Rereading	5	2.5%
Errors	1	.5%
Self-corrections	1	.5%
Substitutions	1	.5%

When I added the responses for all three rankings together, checkmarks remained in the least valued convention spot, directional movement moved up to the second most common response (12%), and tolds remained as the third least valuable convention. See Table 27 for a frequency table of all 577 responses.

Table 27

*Frequency Mentioned Among Least Valuable Conventions and All Three Rankings*

Convention	Frequency	Percentage
Checkmarks	127	22%
Directional movement	69	12%
Tolds	64	11%
Written sentence	59	10%
Appeals	56	10%
Accuracy rate	50	9%
Notes on cross-checking	39	7%
Circling M, S, V	37	6%

Additional comments	30	5%
Substitutions	23	4%
Rereading	18	3%
Errors	3	1%
Self-corrections	2	< 1%

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***Teachers' differences discovered in least valued conventions.*** To discover if differences in teachers' beliefs of the least valuable conventions could be beyond chance, I again performed statistical testing. I performed crosstabulation testing with each of the variables and the demographics of years of experience, reading specialist certification, and prior experience with running records. Crosstabulation assumptions were not met with the demographics of years of experience. Assumptions were met with six of the variables and reading specialist certification (a) accuracy rate, (b) appeals, (c) checkmarks, (d) directional movement, (e) written sentence, and (f) tolds but no statistical differences were found. Assumptions were also met with six of the variables (a) accuracy rate, (b) appeals, (c) checkmarks, (d) directional movement, (e) written sentence, (f) tolds and teachers' prior experience with running records but no statistical significances were found.

Kruskal-Wallis testing was performed with each of the variables and the demographics of work location, discontinue rate, and number of Reading Recovery teachers in the building. While no statistical significance was found in teacher responses when grouped by number of Reading Recovery teachers in the building, differences were

discovered in the other two demographics. Five statistically significant differences were found between locations and their value of (a) accuracy rate  $\chi^2 (7) = 16.52, p = .02$ , (b) checkmarks  $\chi^2 (7) = 15.38, p = .03$ , (c) directional movement  $\chi^2 (7) = 25.74, p < .01$ , (d) cross-checking  $\chi^2 (7) = 15.71, p = .03$ , and (e) substitutions  $\chi^2 (7) = 19.39, p < .01$ .

Just over one-fifth of the participants ranked accuracy as a low value convention so statistically significant differences between locations were with low participant counts. Statistically significant differences were found among three location groupings (see Table 28). Two locations, Midwest one and two had no participants choose accuracy as a low value convention. Despite this fact, these locations were not among the locations most frequently noted with significant differences among location. Testing revealed that Northeast three and Midwest six had the most participants in comparison to their population choose accuracy as a low value convention.

Table 28

*Differences Among Locations and Low Value of Accuracy*

Location 1	Value	Location 2	$\chi^2$	df	p
Northeast three	<	Midwest two	4.05	1	.04
Northeast three	<	Ireland eight	12.59	1	< .01
Midwest six	<	Ireland eight	6.57	1	.01

Just over half of the participants ranked checkmarks as a low value convention. Statistically significant differences were found among four location groupings (see Table

29). Two locations, Midwest five and six had more participants within their population choose checkmarks as a low value convention over other conventions listed. In contrast, testing revealed that Northeast four and Ireland eight had the more participants in comparison to their population chose other conventions as having lower value helping to create significant differences among the groups. Other sites were more evenly distributed between their participants and their value of checkmarks.

Table 29

*Differences Among Locations and Low Value of Checkmarks*

Location 1	Value	Location 2	$\chi^2$	df	p
Midwest five	<	Northeast four	5.37	1	.02
Midwest five	<	Ireland eight	5.28	1	.02
Midwest six	<	Northeast four	7.00	1	< .01
Midwest six	<	Ireland eight	6.57	1	.01

A fifth of the participants ranked directional movement as a low value convention. Statistically significant differences were found among ten location groupings (see Table 30). Midwest two was the only location that had more participants within their population choose directional movement as a low value convention than a valued convention. Northeast seven and Ireland eight also had a high portion of their population choose directional movement as a low valued convention. Conversely, Northeast three,

Northeast four, Midwest five, and Midwest six had a low portion of their population choose directional movement.

Table 30

*Differences Among Locations and Low Value of Directional Movement*

Location 1	Value	Location 2	$\chi^2$	df	p
Northeast three	>	Midwest two	8.35	1	< .01
Northeast three	>	Northeast seven	4.22	1	.04
Northeast three	>	Ireland eight	8.63	1	< .01
Northeast four	>	Midwest two	5.89	1	.02
Northeast four	>	Ireland eight	6.15	1	.01
Midwest five	>	Midwest two	5.83	1	.02
Midwest five	>	Ireland eight	6.45	1	.01
Midwest six	>	Midwest two	8.32	1	< .01
Midwest six	>	Northeast seven	4.09	1	.04
Midwest six	>	Ireland eight	11.28	1	< .01

A third of the participants ranked their notes on cross-checking as a low value convention. Statistically significant differences were found among nine location groupings (see Table 31). Midwest one was the only location that had more participants within their population (75%) choose cross-checking as a low value convention than a

valued convention. Conversely, Northeast three had no participant chose their notes on cross-checking as a low valued convention.

Table 31

*Differences Among Locations and Low Value of Notes on Cross-checking*

Location 1	Value	Location 2	$\chi^2$	df	p
Midwest one	<	Northeast three	15.59	1	< .01
Midwest one	<	Northeast four	8.98	1	< .01
Midwest one	<	Midwest five	5.05	1	.03
Midwest one	<	Midwest six	7.59	1	< .01
Midwest one	<	Northeast seven	8.23	1	< .01
Midwest one	<	Ireland eight	6.06	1	.01
Northeast three	>	Midwest five	4.72	1	.03
Northeast three	>	Midwest six	3.98	1	.05
Northeast three	>	Ireland eight	4.31	1	.04

Less than a tenth of the participants ranked substitutions as a low value convention. Statistically significant differences were found among six location groupings (see Table 32). For most sites, between zero and four percent of participants chose substitutions as a low value convention. Northeast three and Ireland eight had a higher proportion of their population (between 20 and 26 percent) choose substitutions as a low valued convention.



Table 32

*Differences Among Locations and Low Value of Substitutions*

Location 1	Value	Location 2	$\chi^2$	df	p
Northeast four	>	Northeast three	5.00	1	.03
Northeast four	>	Ireland eight	5.46	1	.02
Midwest six	>	Northeast three	3.87	1	.04
Midwest six	>	Ireland eight	5.49	1	.02
Northeast seven	>	Northeast three	6.88	1	< .01
Northeast seven	>	Ireland eight	8.64	1	< .01

One statistically significant difference was found between discontinue rates and teachers' value of appeals  $\chi^2 (4) = 11.02, p = .03$ . Post hoc testing to determine group differences identified three groupings that were statistically significant (see Table 33). Teachers with discontinue rates less than 25% and discontinue rates between 75 and 99 percent found higher value with the convention of appeals. This was in contrast with teachers who discontinued between 25 and 49 percent and 100 percent of their students. Teachers with less than 25 percent discontinue rates valued appeals the most while teachers with between 25 and 49 percent discontinue rates value it the least.

Table 33

*Differences Among Discontinue Rates and Low Value of Appeals*

Rate 1	Value	Rate 2	$\chi^2$	df	p
Less than 25%	>	25 - 49%	6.16	1	.01
Less than 25%	>	100%	5.80	1	.02
75 – 99%	>	100%	4.05	1	.04

**Teachers’ own conventions used on running records.** As with any tool, users sometimes come up with unique ideas to enhance its effectiveness. To determine participants who had done this with their use of running records, teachers were asked to list any additional notations they found useful that were not on the list of 13 required conventions. 133 teachers wrote in a response to this open-ended question. A total of 26 additional notations were mentioned, which were collapsed into seven groups. Comments on how the reading sounded was the most frequently (37%) mentioned grouping. Because of the nature of the question, I did not explore teacher differences. Table 34 shows the list of additional notations mentioned by grouping along with each subgroup.

Table 34

*Additional Notations Made by Reading Recovery Teachers*

Notation	Frequency	Percentage
How the reading sounds Fluency, expression, style, rate	80	36%
Deeper notations	65	30%

Attempts, hesitations, omissions, phrasing, punctuation, word order		
Student behaviors Directionality, eyes, matching, nonverbal actions, attitude, verbal comments, concentration	28	13%
Teacher moves Teaching point, praise, prompt, own system, summary note	27	12%
Deeper analysis High frequency words, MSV parts, gross visual discrepancy	10	5%
Comprehension	8	4%

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**Sharing of running records.** One of the final questions on the questionnaire asked teachers to indicate if they share their running records with others. Of the teachers surveyed, 151 teachers (66%) indicated they shared their running records with others.

***Teachers' differences discovered in sharing running records.*** Two-thirds of the participants indicated they share their running records with others. To discover if the differences in teachers' preferences to share their running records could be beyond chance, I again performed statistical testing. I performed crosstabulation testing with each of the variables and the demographics of years of experience, reading specialist certification, and prior experience with running records. Crosstabulation assumptions were not met in the demographic of years of experience. Crosstabulations revealed statistically significant differences in teachers sharing of running records and the selected demographic of reading specialist certification  $\chi^2 (1) = 8.58, p < .01$ . Testing revealed

teachers with a reading specialist certification, or the equivalent in Ireland, were more likely to share their running records with others. I also discovered statistically significant differences in the grouping of prior experience with running records and teachers sharing with others  $\chi^2 (1) = 17.27, p < .01$ . If the teacher had learned about running records prior to her Reading Recovery training, they were more likely to share them.

Kruskal-Wallis testing was performed with each of the variables and the demographics of work location, discontinue rate, and number of Reading Recovery teachers in the building. This testing found statistically significant differences in sharing in discontinue rates  $\chi^2 (4) = 18.32, p < .01$ , in number of Reading Recovery teachers in the building  $\chi^2 (2) = 15.04, p < .01$ , and among work locations  $\chi^2 (7) = 49.18, p < .01$ . Investigation into these groupings found that teachers who were finding success i.e., high discontinue rates, in Reading Recovery were least likely to share their running records while teachers with average (50 – 75 %) discontinue rates were more likely to share them. Also, I found the more Reading Recovery teachers worked in a building the more likely running records would be shared.

Statistically significant differences were found among nine location groupings (see Table 35). Irish teachers were found to share their running records less often than teachers who worked in the United States. Northeast four had a lower population of teachers that shared running records with others and Midwest two shared as expected. All other locations had a higher than expect proportion of teachers that shared running records than expected.

Table 35

*Differences Among Locations and Running Record Sharing Practices*

Location 1	Likelihood	Location 2	$\chi^2$	df	p
Midwest one	>	Ireland eight	6.72	1	.01
Northeast three	>	Northeast four	8.18	1	< .01
Northeast three	>	Midwest two	6.52	1	.01
Northeast three	>	Ireland eight	20.83	1	< .01
Midwest five	>	Ireland eight	13.94	1	< .01
Midwest six	>	Ireland eight	17.92	1	< .01
Northeast seven	>	Northeast four	7.15	1	< .01
Northeast seven	>	Midwest two	4.06	1	.04
Northeast seven	>	Ireland eight	26.75	1	< .01

***With whom are running records shared?*** I asked teachers who indicated they shared running records with others to list with who they are sharing them. One hundred fifty teachers responded to this question listing a total of 262 people and 11 unique groups of individuals. Classroom teachers were the most frequently mentioned group (78%) followed by other Reading Recovery teachers (41%). Table 36 displays the complete list of groups of individuals, the frequency they were mentioned, along with the percent of cases.

Table 36

*Others Whom Reading Recovery Teachers Share Their Running Records*

Individual	Frequency Mentioned	Percent of Cases
Classroom teachers	117	78%
Reading Recovery teacher	62	41%
Colleague	22	15%
Teacher leader	17	11%
Parent	16	11%
Administrator in school	13	9%
Intervention team	8	5%
Literacy coach	3	2%
School psychologist	2	1%
Special education teacher	1	1%
Student	1	1%

***Why are running records shared?*** Teachers mentioned six reasons why they share their running records with others. Listed in the order of frequency mentioned, the six reasons are as follows: (a) as evidence, (b) to receive help, (c) to collaborate, (d) to coach others, (e) to fulfill a requirement, or (f) to compare performance in different settings. Analysis found that teachers' reason for sharing varied depending on the individual.

Classroom teachers were most frequently shown to use a running record as evidence (72%) of what the child is doing during the Reading Recovery lesson. For

example one teacher stated that she shares them “to show what the child needs to work on and what they have control over.” Another teacher shares them “so they are aware of student’s strategic actions,” and yet another said it was “to prove a point.” Running records are also shared with classroom teachers as a way to coach or mentor them on how to best help the student in the classroom (10%). One teacher explained that sharing “helps guide her on what to focus on in guided reading lessons.”

Participants reported sharing their running records with other Reading Recovery teachers for different purposes than those explained for classroom teachers. The top reason they share their running records with other Reading Recovery teachers is to receive help (58%). With other trained teachers, they share running records “to have another trained person look to see what I missed.” They are looking for feedback, advice, and ideas to help them accelerate the learning of their hard-to-teach students. As one teacher explains, sharing with other Reading Recover teachers “help me think about my teaching.” They also mentioned running records as being shared (25%) with other Reading Recovery teachers as a tool in collaboration. Collaboration differs from help in that the teachers work together to discuss difficult cases.

Like other Reading Recovery teachers, the top reason (50%) these teachers shared running records with their Reading Recovery teacher leaders was to receive help. The second reason (33%) that the teachers mentioned sharing running records with their teacher leaders was because the teacher leaders required it. Running Records were shared with parents as evidence (94%) of their child’s strengths, weaknesses, and progress. Teachers most frequently showed running records to administrators as

evidence (50%), but also stated that they shared the running records because they were required (33%) to do so.

***How often are running records shared?*** When asked how often sharing took place, most respondents indicated they shared running records with others as needed (49%), followed by yearly (14%), and then monthly (12%). As needed top the frequency for all subgroups except parents. With parents, yearly was most often mentioned (56%). Yearly and as needed tied for the most mentioned frequency with Reading Recovery teacher leaders. Reading Recovery teachers indicated they often have scheduled meetings with classroom teachers. Some reported meeting monthly (19%), weekly (15%), bi-weekly (11%), and one teacher reported meeting almost daily with classroom teachers.

**Reading Recovery teachers' use of running records in other parts of their day.** I asked the participants of my questionnaire to write in their other responsibilities at their school. Two hundred twenty-five teachers wrote 313 responsibilities. These responsibilities are listed in Table 37.

Table 37

*Reading Recovery Teachers' Other Responsibilities*

Frequency	Total Responses	Percent of Cases
Reading support with students	202	90%
Special education teacher	31	14%



Reading support with teachers	25	11%
Administration duties	16	7%
Classroom teacher	9	4%
Math support with students	8	4%
ESL teacher	7	3%
Just Reading Recovery	7	3%
Deputy principal	5	2%
Writing instruction	3	1%

After teachers listed their other responsibilities, I asked them to report how often they use running records in them. Two hundred and eighteen teachers responded to this question. Teachers' frequency of using running records in their other responsibilities can be viewed in Table 38.

Table 38

*Reading Recovery Teachers' Use of Running Records in Their Other Responsibilities*

Frequency	Total Responses	Percentage
Always	55	25%
Often	69	32%
Sometimes	60	28%
Rarely	12	5%
Never	21	10%

### **Summary of teachers' beliefs and uses of running records after Reading**

**Recovery lessons.** When I asked teachers to rank the three running record conventions they find most valuable in analyzing a running record, self-corrections, errors, and additional comments topped the list of 13 items. Explorations into teacher differences and selected demographics revealed four statistically significant differences. A nuance difference in responses was found between teachers ranking of self-corrections as their third valued convention and when teachers learned about running records. Statistically significant differences were found among locations and their value of errors and tells. Three Midwest sites were found to hold the highest value of errors and three northeast sites were found to have no participants choose tells as high valued convention. I also found teachers' emphasis on accuracy was significantly different in discontinue rates with teachers discontinuing between 75 and 99 percent of their students placing less value on accuracy than those in percentage groups above and below them.

Conversely, when I asked teachers to rank the three running record conventions they find least valuable in analyzing a running record, checkmarks, directional movement, and tells topped this list of 13 items. Statistically significant differences in responses to this question were found between location and teachers' beliefs about accuracy rate (two sites with lower value), checkmarks (two sites with lower value), directional movement (two sites with high value), notes on cross-checking (one site with low value), and substitutions (two sites with low value). Also significant differences were found between discontinue rates and teachers' view of appeals. Teachers who discontinued the fewest

students valued appeals the most. Besides the 13 recommended conventions, some teachers reported using additional conventions. These included notations on how the reading sounds, deeper notations, notes on student behaviors, and how they responded during the reading.

A little over half of the teachers (66%) reported sharing running records with others. Teachers who held reading specialist certification were found to share their running records more. Also, teachers who learned how to conduct running records before their Reading Recovery training were found to share their running records too. Work location, discontinue rates, and number of Reading Recovery teachers in a building all impacted the likelihood of a teacher sharing. Teachers who taught in Ireland, had high discontinue rates, and were the only Reading Recovery teacher in the building shared their running records the least. Reading Recovery teachers most frequently reported sharing running records with classroom teachers. This sharing was done to both inform them about the student, as well, as to coach and mentor them. Running records were most commonly shared as needed, and teachers did not usually have planned times for sharing.

Finally, I discovered that Reading Recovery teachers most frequently spend the remainder of their day supporting students in reading. This instruction is typically done in small group settings. Teachers reported using running records in these settings even when the task was not required of them.

## **Summary of Results**

This chapter reported on the findings of a 29-item questionnaire that asked practicing Reading Recovery teachers to share their beliefs and uses of running records. The results from the questionnaire indicated that teachers felt very positive about the daily requirement to conduct a running record. Data were organized to report teachers' beliefs and uses of this assessment tool before, during, and after Reading Recovery lessons. The results from the analysis of the questionnaire data highlight that teachers have specific beliefs about and uses of running records in each time segment. In beliefs about the running record component of the Reading Recovery lesson I discovered few statistically significant differences among the 228 teachers who participated in the study. I did find some statistically significant differences in teachers' value of running record conventions and sharing practices. Chapter Five discusses the findings, limitations, and implications of this study.

## **CHAPTER FIVE**

In this chapter, I discuss the findings shared in Chapter Four and how they contribute to a deeper understanding of Reading Recovery teachers' beliefs about and uses of running records. I use the three research questions to frame this discussion. First, I discuss the roles Reading Recovery teachers believe running records play in helping them individualize instruction for their first-grade students. Second, I examine Reading Recovery teachers' uses of running records. Third, I explore the differences among the Reading Recovery teachers' beliefs about and uses of running records. Finally, I share possible study limitations and the implications. I close the chapter with a summary that offers concluding remarks.

### **Teachers' Beliefs About Running Records' Roles**

I found Reading Recovery teachers held fairly unified beliefs about running records and the roles they play in helping them individualize instruction for their first-grade students. Overall, teachers' global views of the assessment tool were positive. They believed that running records are valuable tools that help inform them of the reading strategies students are using and neglecting. Teachers reported running records among their most valued planning tools used before lessons. Teachers shared the belief that the running record component of the lesson plays the greatest role in student success during lessons and is the only component they would not skip. When analyzing the

running record after lessons, teachers reported valuing looking at students' self-corrections and errors over accuracy scores in their analysis.

**Teachers' global beliefs about running records.** Teachers' global views of running records are important to explore as previous research indicates that beliefs affect the use of assessments (Afflerbach & Cho, 2011; Clay, 2013; Pellegrino et al., 2001). When Baumann et al. (2000) surveyed elementary school teachers' practices, teachers reported valuing formative assessments for their usefulness over summative assessments, which they are typically required to administer by their school district. Because running records are both formative assessments and required assessments, it was difficult to predict how participants would respond.

I found the Reading Recovery teachers I surveyed, like Baumann et al.'s (2000) participants, found value in the formative nature of the assessment tool. None of the teachers I surveyed mentioned feeling resentment in the requirement to take daily running records. In fact, the majority of Reading Recovery teachers stated they use running records in a variety of their non-Reading Recovery responsibilities, showing their willingness to use them when they are not required to do so. I believe this is a reflection of Reading Recovery teachers' yearlong training process and continued professional development (Clay, 2005a; Clay, 2005b) that fosters confidence and comfort in using the assessment. Instead of resentment, Reading Recovery teachers reported feeling like experts in using the tool that empowered them to individualize instruction for their first-grade students and in their other responsibilities. The few negative feelings expressed

towards running records were stress related to getting the information down quickly, correctly, and neatly.

In the following sections, I build upon teachers' global views of running records by reporting on the specific roles they believe running records play in helping them individualize instruction with their first-grade students. I found in my self-study research of my own running record use, described in Chapter Three, that running records played key yet differing roles before, during, and after my lessons. I found these roles to be in line with Clay's (2000) purposes of running records to (a) guide teaching, (b) capture progress, and (c) assess text difficulty. As a result, my questionnaire was set up in these three contexts to determine what, if any, roles other Reading Recovery teachers' believed running records played in guiding teaching, capturing progress, and assessing text difficulty.

**Teachers' beliefs about running records' roles before lessons.** To begin, almost every teacher surveyed indicated setting aside time each day to plan for the next day's lesson. These findings are in line with the Reading Recovery program's value that teachers are observant and responsive, designing a program to best match each child's individual needs. As Clay (2005b) describes,

It is an essential feature of an early intervention which aims to accelerate learning that teachers remain responsive to the learning of a particular child, notice when it is possible to allow a leap forward, or act immediately on any confusions and regressions that emerge during the lesson. (p. 2)

In planning, teachers' reported running records as their most valuable tool to refer to when making their instructional plans. This finding confirmed my hypothesis that Reading Recovery teachers do indeed use running records as a key tool to inform their instructional decisions. This finding also supports the need for research into Reading Recovery teachers' uses of running records and how they inform their decisions. My literature review on Reading Recovery teachers as decision-makers found that teachers' use of lesson records (Gibson, 2003; Wiley, 1992), teacher knowledge (Elliot, 1996; Gibson, 2010), and book choice (Glasgow, 2002; Outson, 2003) are the only tools that have currently been explored in this topic.

**Teachers' beliefs about running records' roles during lessons.** Besides believing that running records were their most valuable tools to refer to in planning, Reading Recovery teachers also value the role that running records play within the lesson framework. Each 30-minute Reading Recovery lesson is made up of seven components (Clay, 2005b). When asked, the Reading Recovery teachers reported believing the running record component plays the greatest role in student success. The roles teachers gave as to why they believe running records contribute to student success are they (a) inform future lessons, (b) track student progress, (c) check teaching, (d) provide observation time, and (e) allow students to see what they can do independently. Also, of all the lesson components, it was the only one that all the teachers valued to the extent that they indicated they would not skip it, even if they were running short on time.

A review of the literature found no published research that has previously asked Reading Recovery teachers their beliefs about the seven lesson components that make up



the Reading Recovery lesson framework. By asking teachers questions about the seven components, I not only learned the high value Reading Recovery teachers place on the running record component but also important views on the other six components.

Perhaps a reason for this lack of literature is because emphasis is placed on proving the effectiveness of the program (Allington, 2005). Extending the findings of this research to determine teacher beliefs about each lesson component can inform key stakeholders of areas of strength and weakness and be used to strengthen the implementation of the program.

**Teachers' beliefs about running records roles after lessons.** After each Reading Recovery lesson, teachers turn their attention to analyzing the running record. In analyzing running records, I wanted to know which running record conventions they thought were the most and least valuable to them. The findings point to teachers' foundational beliefs about reading. As previous research has found, beliefs affect the use of assessments (Afflerbach & Cho, 2011; Clay, 2013; Pellegrino et al., 2001). Here, participants reported believing that the most valuable conventions running records collect are students' reading behaviors of self-corrections and errors. Conversely, teachers found the least valuable conventions to be checkmarks. These findings support the idea that Reading Recovery teachers believe in what the Reading Recovery program teaches them - that reading is a complex problem-solving process through which a reader tries to construct meaning while reading text (Clay, 2005a). This conclusion is reached from the fact that teachers reported valuing reading processes (self-corrections and errors) over correct and accurate reading (checkmarks and accuracy percentages).

## **Teachers' Uses of Running Records**

It is known that Reading Recovery teachers take daily running records (Clay, 2005b). It is also known that running records are taken to (a) guide teaching, (b) assess text difficulty, and (c) capture progress (Clay, 2000). Therefore, Reading Recovery teachers' uses of running records are often assumed. Assumptions should be approached with caution because research has found that teachers' prior knowledge and beliefs affect assessment interpretation (Afflerbach & Cho, 2011; Clay, 2013; Fitzharris et al., 2008; Gallant & Schwartz, 2010; Pellegrino et al., 2001). My exploration into teachers' reported running record uses confirms the assumption that Reading Recovery teachers use running records. In addition, as described below, these findings provide a more detailed description of how they help them individualize instruction for their first-grade students.

**Using running records to guide teaching.** In addition to confirming the assumption that Reading Recovery teachers consistently use running records, I learned the high value that teachers place on using them as a formative assessment. Teachers used their running records to guide their teaching on two occasions, both during and after lessons. In addition, teachers share their running records with classroom teachers and other Reading Recovery teachers to guide teaching as well.

***Why running records help guide teaching.*** As stated in the previous section, teachers believe the running record is their most valuable tool when making instructional plans. Running records empower teachers to purposefully plan instruction for their first-grade students. When I asked teachers to share their feelings about running records,

words such as “insightful,” “informed,” and “knowledgeable” were often repeated. As one teacher described, “I feel an insight as to what the child knows and doesn’t know (sic) what I need to teach next.” Through observation and subsequent analysis, teachers are able to determine both student strengths and needs. This knowledge then allows them to “feel empowered to help.”

***When running records help guide teaching.*** In planning, teachers reported using the data from running records to determine students’ strengths and needs. This knowledge then allows them to create a road map for their future instruction. Designing lessons based on student responses and competencies is a key characteristic of the Reading Recovery program that provides no step-by-step sequencing of lessons to teachers (Clay, 2005a). As Wiley (1992) noted, being a successful Reading Recovery teachers means accepting the role of a life-long learner who is willing to adapt and change teaching to best meet the needs of struggling readers. Running records help teachers in this process by documenting student behaviors that inform teachers in making important decisions to accelerate learning.

In addition to planning, teachers reported using running record data to guide instruction during lessons, as well. These are immediate and responsive decisions teachers make based on the student’s response to text (Clay, 2000). One teacher illustrated this idea in her statement of why she believes running records play the greatest role in student success, “Being able to work on something that tricked the student RIGHT AWAY makes a huge impact.” Because these teaching decisions are made immediately following the running record, the teacher has not yet had time to fully analyze the record.

Typically the teacher refers the child to a point where they did something well (praise point) followed by a place where they noticed the child still needs assistance (teaching point) (Clay, 2005b). As one teacher described, “I like seeing in my RR [running record] the child do something strategic that is going to move the child forward and then asking him to repeat that strategy ‘here.’” As the Reading Recovery teachers explained, this small practice could make a huge impact on student success. It would be of interest to confirm Reading Recovery teachers’ belief that these in lesson teaching points do impact student learning.

***With whom do running records help guide teaching.*** Reading Recovery lessons make up only a small portion of a Reading Recovery student’s school day. These students work with other individuals, who are also responsible for their literacy progress and monitoring. Reading Recovery teachers are encouraged to share the data they have collected, including running records, especially when deciding when to discontinue lessons (Clay, 2005a). Yet a review of the literature on teachers’ decision-making and running records found no studies that have investigated with whom, for what purpose, and how often teachers are sharing their data with others. The majority of Reading Recovery teachers I surveyed indicated they do use running records to help them talk to others about their Reading Recovery students. They indicated that they most frequently share the running records with classroom teachers and other Reading Recovery teachers. I found they did so for two very different reasons.

Reading Recovery teachers share running records with classroom teachers to guide the classroom teachers’ instruction. Reading Recovery teachers described a

coaching or mentoring approach to sharing running records with classroom teachers. Their descriptions began with words such as “to show,” “to support,” “to discuss,” “to prove,” or “to inform.” They mentioned sharing running records with them as a form of evidence. Many noted that by sharing the evidence found in the running record, they hoped to encourage teachers’ classroom instruction to match student needs. One Reading Recovery teacher explained that she shares running records with classroom teachers “so that we can carry needed instruction into the classroom.”

In contrast, Reading Recovery teachers share running records with other Reading Recovery teachers for support in guiding their teaching. These explanations began with words such as “for input,” “for ideas,” “for feedback,” “for help,” or “for advice.” Indeed, previous research has found that Reading Recovery teaching is challenging (Jones, 2000). Therefore, it is not surprising that teachers value having another trained person look at the data with “another set of eyes” to help them “improve teaching.” It is interesting to note that Reading Recovery teachers reported sharing their running records more with other Reading Recovery teachers than with their Reading Recovery teacher leaders, who were mentioned less often.

When I asked participants to glance at a running record I had taken, I received a glimpse into the type of feedback a teacher might receive when sharing a running record with another Reading Recovery teacher. For this item, none of the participants took the time to score the running record, and yet over half of the teachers were able to correctly identify the child’s needs. Similar to a people’s ability to do math problems in their head versus working them out on paper, these teachers’ expertise with scoring running records

may have allowed them to scan the short running record provided and determine what cues the student used and neglected without needing to circle M, S, or V. This provides insight into the value of running records that it provided participants enough information to enable them to interpret student needs without meeting the student or speaking to the teacher.

The specificity of the Reading Recovery teachers' interpretations of the running record concurs with the findings of Gallant and Schwartz's (2010) study that found Reading Recovery teachers were able to interpret, infer, and recommend literacy instruction more specifically than other running record users. Interestingly, when I explored the demographics of the teachers who were able to pinpoint exactly what the student needed to do next to improve his reading, I found no statistically significant differences among the teachers. In fact, teachers' years of experience ranged from in-training to 20 years. This finding differs from the research of Glasgow (2002) who concluded that more experienced Reading Recovery teachers do a better job analyzing student needs, but it supports the findings of Fitzharris et al. (2008) who concluded that breadth of educational experiences seemed to enhance teachers' performance rather than number of years teaching.

**Using running records to assess text difficulty.** My research also confirmed the fact that teachers use running records to assess text difficulty. Although, analyzing the running record takes time, teachers appreciate the "evidence," "documentation," and "records" the data provides them. They use the data not only to check on the students' learning, but also to check their teaching. Interestingly, I discovered that the Reading

Recovery teachers found more value in reading behaviors collected than final scores. Identifying student strengths and needs was their top priority, followed by determining the types of errors made, and then finally accuracy.

When participants were shown a list of the 13 conventions of a running record, they most frequently chose the reading behaviors of self-corrections and errors as the most valuable items to them on a running record. It is interesting that the positive reading behavior of self-corrections tops the list among the most valuable conventions. Reading Recovery teachers are trained from their first encounter in working with students to look for evidence of what the child *can* do in reading and writing and to design lessons that build upon these strengths (Clay, 2013). Self-corrections are areas where students are able to monitor their reading by themselves, a sign of strength for beginning readers. These self-corrections signal both growth on the part of the student and a positive response to teaching. The high value these teachers place on self-corrections indicates that they continue to approach their work with children in a strength-base manner.

After appreciating students' strengths in self-corrections, teachers indicated their second most valued item on a running record is errors. In Reading Recovery, like miscue analysis, errors are never thought of as being random, instead, they are considered windows into the mind of a reader allowing the teacher to see the reading process at work (Brown, Goodman, & Marek, 1996). Errors give teachers clues into student processing and problem solving, and each one is analyzed by asking, "What led the child to do (or say) that?" (Clay, 2000, p. 21). Then, patterns of responses are reviewed to inform teachers what still needs to be taught (Clay, 2000). The third most valued convention,

observation comments, is closely related to reading behaviors in that they allow teachers to record any other interesting things they noticed about the reading. The ability to record additional comments comes with practice (Clay, 2000). “When they record the essentials, teachers find it easy to also note what the child said about the task, or how they moved across print, and other interesting things” (Clay, 2000, p. 6). The Reading Recovery teachers mentioned recording comments, including how the reading sounds, eye movements, nonverbal actions, verbal comments, attitude, and concentration level. It is only after attending to reading behaviors that the participants mentioned turning their attention to analyzing the errors and determining the accuracy rating of the reading.

When I asked teachers to indicate the running record conventions they found least valuable, checkmarks and directional movement were most frequently reported. Checkmarks show teachers little about readers’ problem solving and processing of the text as they symbolize accurate and correct reading (Clay, 2013). Directional movement, on the other hand, is often a main item of focus at the beginning of lessons, but, once mastered, teachers’ attention moves to other tasks (Clay, 1991). The timing of when the questionnaire was given to teachers, October through March, may have affected their decision to rate this convention so low in value. Worthy of noting is that errors and self-corrections were mentioned the fewest times as the least valuable conventions, and checkmarks and directional movement were mentioned the least as the most valuable conventions.

Reading Recovery teachers’ stance on placing greater value on reading behaviors over accuracy and scores may be a unique characteristic of those who have gone through



program training. My experience in the field has shown that other users of running records tend to value accuracy and scores first. Prior research has determined that both reading specialists and classroom teachers use running records as an assessment tool (Baumann, 2000; Bean et al., 2002). It would be of interest to find out more about these other users' values and to determine the impact these values might have on instruction.

**Using running records to capture progress.** In Clay's (2000) description of this use of a running record, she described how running records can be used to plot a path of progress to "show that learners are meeting the challenges of increasingly difficult texts" (p. 4). While I found that teachers used running records in this way, teachers made unique comments about the process of capturing the progress. When taking a running record, teachers take on a new role of observer (Clay, 2013). In this role, participants mentioned looking to see their teaching in action, student reading behaviors, and growing student independence. While most teachers mentioned enjoying this freedom to just observe, a few teachers mentioned struggling with this role, especially if the student experienced difficulty.

There are many individuals who are interested in student progress within the Reading Recovery program. Running records can be shared with these individuals as evidence of student progress, or lack of progress, within the program (Clay, 2013). The teachers surveyed reported sharing their running records as evidence of progress, or lack of progress, with Reading Recovery teacher leaders, administrators, intervention teams, literacy coaches, school psychologists, and special education teachers. Often this type of sharing was required of them.

### **Teacher Differences in Beliefs About and Uses of Running Records**

Although I thought I would find statistically significant differences among the teachers in selected demographics and their beliefs about the value of the different Reading Recovery lesson components. I did not. In fact, I found that teachers were more alike than different, and, as a result, most of my responses were skewed. I believe that the Reading Recovery training and continued professional development Reading Recovery teachers receive plays a big role in these findings. The strength and uniformity of the training and continued professional development are a result of published standards and guidelines followed by all who participate in the implementation of the program (Reading Recovery Council of North America, 2011). Reading Recovery's training and professional development sessions also closely match Darling-Hammond and Richardson's (2009) findings on effective professional development (Reading Recovery Council of North America, "Training for Teachers," 2014).

In contrast, with teachers' interpretation of running records, I expected to find commonality among teachers' views. I expected this because in training teachers are taught to view reading as a complex problem-solving process (Clay, 2005a), and previous research has found that running record interpretation is dependent on teachers' theoretical view (Clay, 2013). However, I did find some significant differences among teachers' value of different running record conventions as they relate to discontinue rates and also between locations.

Significant differences were found among teachers' high value in accuracy and their success in discontinuing students. I also discovered that participants who

discontinued between 75 and 99 of their participants placed less value on accuracy than the groups below and above them. Similarly, significant differences were found among teachers' low value on appeals and their success in discontinuing students. Teachers who discontinued the fewest students were found to value appeals the most.

Besides discontinuation rates, I also found statistically significant differences between locations and their beliefs about running record conventions. Among valued conventions, differences were found between locations and the value they place on errors and tolds. Three Midwest sites held the highest value of errors while three northeast sites had no participants who chose tolds as a top valued convention. Statistically significant differences among least valued conventions and locations were also found in their value of accuracy rate (two sites with lower value), checkmarks (two sites with lower value), directional movement (two sites with high value), notes on cross-checking (one site with low value), and substitutions (two sites with low value).

Statistical differences were also found in teachers' sharing practices. Because previous research has not been conducted on this aspect of running records, I was unsure what to expect in my findings. I found that teachers who learned about running records prior to their Reading Recovery training were more likely to share them with others. I also found that teachers with a reading specialist certification, or its equivalent in Ireland, were more likely to share their running records. In contrast, I discovered teachers who had higher discontinuation rates, taught in Ireland, or were the only Reading Recovery teacher in their building were least likely to share their running records.

## **Limitations**

This study is not without limitations. First, this study uses a researcher-created questionnaire. With no prior studies on which to build, it may be that the correct questions were not asked or that they are not asked in the correct format to fully explore the topic. To help reduce this limitation, DeVellis' (2012) eight steps for measurement development were followed. In addition, although my questionnaire was piloted and went through several revisions, validity was not measured with a large sample of participants prior to conducting the study due to approval difficulties and the fact that a reliability statistic for the final version was not determined.

Another limitation to this study is that it contains both coverage errors and sampling errors. Due to approval limitations, not all Reading Recovery teachers were provided the opportunity to respond to the questionnaire and not all Reading Recovery teachers who were given the questionnaire took it. As a result, the findings of this study cannot be generalized to the beliefs and uses of running records for all Reading Recovery teachers. To improve the ability to generalize, Reading Recovery teachers from multiple Reading Recovery sites, countries, and states were surveyed.

The next limitation of the study is the collection of self-reported data. I asked Reading Recovery teachers to report their beliefs about and uses of running records, but I did not study their actual practice to confirm their responses. Also, my university required that I present an informed consent form to each participant prior to them participating in the study. This consent form informed the teachers of the purpose of the study, which may have swayed the teachers to answer more positively about running

records. As a result, the findings must be interpreted with caution because these teachers may know through their Reading Recovery training how they may be expected to answer, which may not be the same as their actual practices. In an effort to get teachers to answer honestly, the confidentiality of their answers was addressed on the consent form and also in the Teacher Leader Script.

Additionally, the timing of when the questionnaire was given could impact teachers' answers. In conducting this study, I purposefully delayed survey distribution until I knew teachers were in lessons and using running records daily. I did not want them to have a romanticized view of the tool that could occur if teachers were given the questionnaire during the summer or at the beginning of the year. That being said, I noticed that directionality had a low perceived value as a running record convention. This low response could be a result of the timing of the questionnaire. Teachers' students may have had control of directionality by the time they took the questionnaire, so this would not be as an important skill to monitor.

While I had planned for and attempted to reduce the limitations listed above, my final limitation was unexpected. I discovered this limitation when I attempted to answer my third research question that looks into teachers' differences. Unfortunately, many factors prohibited my ability to conduct statistical testing with these variables as I had originally planned. My range of statistical testing options was first limited because my variables were categorical. Secondly, chi-square testing for association found that three of my six variables were heterogeneously grouped, limiting my statistical testing even further to non-parametric testing. Finally, for many of the tests, skewed data prevented

test criterion from being met. As a result, differences among teachers were primarily reported using descriptive statistics. Future researchers interested in studying teacher differences should plan to collect interval scale variables so that advance statistical testing can be conducted. The findings presented in Chapter Four of this study could help future researchers to think about how to word questions appropriately for a new study.

### **Implications**

The Reading Recovery program has no set curriculum or steps; therefore, the success of each student's program rests on the decisions made by the Reading Recovery teacher (Clay, 1985). With 30 years of data studying the effectiveness of Reading Recovery and the program being noted as having positive effects in general reading achievement, these teachers must be making the smart decisions when it comes to early literacy instruction (U.S. Department of Education, 2013). Interestingly, few research studies have investigated these teachers' decision-making process, especially in regard to their use of running records to make instructional decisions.

A literature review on Reading Recovery teachers as decision-makers found that running records, a key element of Reading Recovery teachers' daily data collection, had been ignored. Those who explored Reading Recovery teachers' decision-making examined their use of notes on daily records (Wiley, 1992; Gibson, 2003), teacher reflections (Elliot, 1996), book selection (Outson, 2003; Glasgow, 2002), and teacher knowledge (Gibson, 2010). However, when I asked 228 Reading Recovery teachers what they believed was the most valuable tool when making instruction plans, running

records was their first choice. As a result, I feel the findings from this study are important and contribute to an area of research that lacks evidence and explorations.

Although running records are required task to perform within each Reading Recovery lesson, I found that Reading Recovery teachers understand the purpose and importance of the component as described by Clay (2000, 2005b). This was shown when participants chose running record as the most valued planning tool, the lesson component that plays the greatest role in student success, and the only component not skipped when running short on time. The high level of agreement I found among the 228 participants speaks to the Reading Recovery program's standardized training procedures and keen oversight of the program.

Questionnaire responses taught me more than just teachers' beliefs about running records. I learned about teachers' beliefs about all seven of the lesson components. Although these findings are outside of the realm of this study, I believe they are important to note to inform professional development sessions as well as future research. Reviewing teachers' thoughts about each lesson component revealed areas of teacher-perceived strengths and weaknesses. While running records were among the teachers' reported strengths, teachers reported struggling with the word work and writing components of the lesson. These responses should be explored further by Reading Recovery leaders and addressed, so Reading Recovery teachers feel equipped and confident implementing all of the lesson components.

In exploring Reading Recovery teachers' reported uses of running records, I found they used them daily before, during, and after each Reading Recovery lesson.

Before lessons, they empowered teachers to make informed instructional choices about students. During lessons, they allowed teachers observation time to both praise and correct student practices while reading. After lessons, they provided teachers with a record of student reading behaviors that could be used to document progress and to share with others. With the knowledge of teachers' self-reported uses of running records, next steps for research include observing teachers using running records as well as comparing Reading Recovery teachers' practices with other literacy teachers.

In addition, Reading Recovery teachers' practice of sharing their running records with other professionals should be explored further. I found three-fifths of the teachers reported sharing their running records. These teachers mentioned 11 different individuals with whom they share them. However, most sharing was done on an as-needed basis. Future research should address questions as to how to foster increase sharing of running records and the impact this might have, if any, to student's academic success. Additionally, further research can explore the sharing practices between classroom teachers and other Reading Recovery teachers. Lastly, Reading Recovery teacher leaders should monitor and be in open communication with those teachers who work alone in a building and provide them with extra support and encouragement to increase their running records sharing practices.

Finally, participants' demonstrated an expertise their uses of running records when they were given an unscored running record and asked to provide feedback to the teacher who took the record. Without scoring the record, over half of the teachers were able to determine student needs and over a quarter of the teachers were able to pinpoint



specific next steps for the child without meeting the child or speaking with the teacher. This points to the power of the running record. It would be beneficial to expand upon this idea and to build upon the research of Gallant and Schwartz (2010) by asking multiple types of literacy teachers to view the same running record to determine professionals' differences in interpretation and to build upon noted strengths.

Those interested in studying teacher differences should review the difficulties I faced. When designing a study of this nature, question format and purposeful participant recruitment are important factors to consider for success. I found Reading Recovery teachers to be more alike in their beliefs about running records as a lesson component than their beliefs about running record conventions. Differences in teacher beliefs about the value of conventions and discontinue rates, location, and sharing practices should be among the selected demographics to be explored further.

## **Conclusion**

I asked 228 practicing Reading Recovery teachers their beliefs about and uses of running records, a required daily assessment tool used in their jobs. I found teachers unified in the high value they place on this formative assessment tool. I also found running records play differing roles for the teachers based on the context in which they were using them - before, during, and after Reading Recovery lessons.

The teachers I surveyed reported planning daily for their Reading Recovery lessons with running records being their most valuable planning tool. Among the seven lesson components, teachers most frequently chose running records as the one that plays the greatest role in student success, and it was the only lesson component teachers

reported not skipping. During the lesson, teachers reported making on the spot decisions based on the newly collected running record data to both praise and instruct students. In analyzing running records after lessons, I found Reading Recovery teachers place the highest value on student self-corrections and errors recorded on running records. However, it is also evident they believed the quantitative data was helpful in order to determine text difficulty.

Although running records can provide valuable information to share (Clay, 2005a), most Reading Recovery teachers reported sharing running records with others only on an as-needed basis. Reading Recovery teachers reported sharing running records with professionals, including classroom teachers, other Reading Recovery professionals, and administrators to name a few. When they did share, whom they shared the running record with affected both why and how they shared them. For example, the teachers mentioned sharing running records with classroom teachers as evidence and as a form of instructional coaching. In contrast, teachers shared running records with other Reading Recovery teachers to get another set of eyes and for help making instructional decisions.

Finally, while teacher differences were explored, significant differences were not found among the six selected demographics and teachers' beliefs about the running record lesson component. In fact, teachers were found to be more alike than different in their perceived value of the tool. Perhaps this is a result of Reading Recovery's yearlong training and continued professional development. Teacher differences were found in value of running records conventions among discontinue rates and locations. Finally, I found that teachers who had previous experience with running records and held a reading

specialist certification were more likely to share them with others than those who learned about running records in Reading Recovery training. Similarly, it was found the more Reading Recovery teachers work in a building the more frequently running records were shared.

Prior to this study, little was known about Reading Recovery teachers' beliefs about and uses of running records. In asking Reading Recovery teachers from eight sites and two countries about their beliefs and practices in using running records before, during, and after their Reading Recovery lessons, we now know more. It is my hope that these findings initiate conversations concerning the value of running records that will lead to their improved use and implementation, so that more students can be provided with excellent early literacy instruction that meets their needs.

## APPENDIX A

### Standard Reading Recovery Running Record Form Page 1

RUNNING RECORD SHEET				
Name: _____	Date: _____	D. of B.: _____	Age: _____ yrs _____ mths	
School: _____	Recorder: _____			
Text Titles	Errors Running Words	Error Ratio	Accuracy Rate	Self-correction Ratio
Easy _____	_____	1: _____	_____ %	1: _____
Instructional _____	_____	1: _____	_____ %	1: _____
Hard _____	_____	1: _____	_____ %	1: _____
Directional movement _____				
<b>Analysis of Errors and Self-corrections</b>				
Information used or neglected [Meaning (M), Structure or Syntax (S), Visual (V)]				
Easy _____	_____			
Instructional _____	_____			
Hard _____	_____			
Cross-checking on information (Note that this behaviour changes over time)				
		Count		Analysis of Errors and Self-corrections
Page	Title	E	SC	Information used
				E MSV
				SC MSV

2

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## APPENDIX B

### Study Questionnaire for US Participants

#### *On the Record: Exploring Reading Recovery Teachers Reported Uses of and Beliefs about Running Records*

#### INFORMED CONSENT FORM

##### RESEARCH PROCEDURES

This research is being conducted to explore Reading Recovery teachers' use and beliefs about the role running records play in helping them differentiate instruction with their first grade students. If you agree to participate, you will be asked to complete a two-page paper questionnaire. The questionnaire should take approximately 15 minutes to complete. If you choose not to participate, return the blank questionnaire.

##### RISKS

There are no foreseeable risks for participating in this research.

##### BENEFITS

There are no benefits to you as a participant other than to further research in the fields of literacy assessment, differentiated instruction, and Reading Recovery.

##### CONFIDENTIALITY

The data in this study will be confidential. Your name will not be included on the questionnaire unless you choose to add it. The last question of the questionnaire does ask you if you are willing to be contacted to discuss your experiences for a possible future study. If you are willing and write your name, a code will be placed on the questionnaire and your name will be removed. An identification key will then be used so that only the researcher is able to link your questionnaire to your identity and only the researcher will have access to the identification key.

##### PARTICIPATION

Your participation is voluntary, and you may withdraw from the study at any time and for any reason. If you decide not to participate or if you withdraw from the study, there is no penalty. There are no costs to you or any other party. Teachers who chose to complete the questionnaire will receive a leveled reader as a thank you for their participation.


##### CONTACT

This research is being conducted by Rebecca Cauffman, a Ph.D. Candidate in the College of Education and Human Development at George Mason University. She may be reached at (xxx) xxx-xxxx for questions or to report a research-related problem. The faculty advisor for this research, Dr. Julie Kidd, may also be contacted at (xxx) xxx-xxxx. Finally, you may contact the George Mason University Office of Research Integrity & Assurance at (xxx) xxx-xxxx if you have questions or comments regarding your rights as a participant in the research.

This research has been reviewed according to George Mason University procedures governing your participation in this research.

Version date: May 23, 2013

APPROVED

  
George Mason University

### ***Reading Recovery Teacher Questionnaire***

This questionnaire asks about how Reading Recovery teachers approach different aspects of their work. Please answer each question to the best of your ability based on your experience as a Reading Recovery teacher. There are no right or wrong answers and your answers will not be shared with your Reading Recovery teacher leader, principal, or school district.

#### **Planning for Reading Recovery Lessons:**

The following questions ask about your planning of your Reading Recovery lessons.

1. When do you plan for your Reading Recovery lessons?
  
  
  
  
  
  
  
  
  
  
2. Order the 3 items you find **most valuable** to refer to in making instructional plans using the numbers 1, 2, 3 (with 1 being the most valuable):  
  
\_\_\_\_\_ Becoming Literate  
\_\_\_\_\_ Reading Recovery Leveled Books  
\_\_\_\_\_ Literacy Lessons Part 1 and 2  
\_\_\_\_\_ Notes on Daily Lesson Record  
\_\_\_\_\_ Running Records  
\_\_\_\_\_ Student Writing  
\_\_\_\_\_ Teacher Knowledge  
\_\_\_\_\_ Other: \_\_\_\_\_

#### **Reading Recovery Activities:**

The following questions ask about your thoughts about the different activities found in Reading Recovery lessons.

3. Circle your **favorite** activity in Reading Recovery lessons:

Familiar Reading	Running Record	Word Work	Writing	Cut-Up Sentence	New Book Introduction	Attempting the New Book
------------------	----------------	-----------	---------	-----------------	-----------------------	-------------------------

4. What do you enjoy most about the activity you circled?

5. Circle your **least favorite** activity in Reading Recovery lessons:

Familiar Reading	Running Record	Word Work	Writing	Cut-Up Sentence	New Book Introduction	Attempting the New Book
------------------	----------------	-----------	---------	-----------------	-----------------------	-------------------------

6. What do you enjoy least about the activity you circled?

7. Based on your experiences as a Reading Recovery teacher, please circle the activity that you believe plays the greatest role in your students' success.

Familiar Reading	Running Record	Word Work	Writing	Cut-Up Sentence	New Book Introduction	Attempting the New Book
------------------	----------------	-----------	---------	-----------------	-----------------------	-------------------------

8. Why do you believe that the item circled above plays the greatest role in your students' success?

9. When you find you are running short on time, circle below the one activity that you are most likely to skip.

Familiar Reading	Running Record	Word Work	Writing	Cut-Up Sentence	New Book Introduction	Attempting the New Book
------------------	----------------	-----------	---------	-----------------	-----------------------	-------------------------

10. Why might you choose to skip the activity you circled above?

#### Analyzing Running Records

The following questions ask about your use of running records.

11. If I say "running record," you feel \_\_\_\_\_

12. Order the 3 items you find **most valuable** in a running record using the numbers 1, 2, 3 (with 1 being the most valuable):

- \_\_\_\_\_ Accuracy rate
- \_\_\_\_\_ Additional comments you add to the running record
- \_\_\_\_\_ Appeals
- \_\_\_\_\_ Checkmarks
- \_\_\_\_\_ Circling M, S, V
- \_\_\_\_\_ Directional movement
- \_\_\_\_\_ Errors
- \_\_\_\_\_ Notes on cross-checking behaviors
- \_\_\_\_\_ Rereading
- \_\_\_\_\_ Self-corrections
- \_\_\_\_\_ Substitutions
- \_\_\_\_\_ The sentence you write about errors and self-corrections used or neglected [M, S, V]
- \_\_\_\_\_ Tolds

- \_\_\_\_\_ Accuracy rate
- \_\_\_\_\_ Additional comments you add to the running record
- \_\_\_\_\_ Appeals
- \_\_\_\_\_ Checkmarks
- \_\_\_\_\_ Circling M, S, V
- \_\_\_\_\_ Directional movement
- \_\_\_\_\_ Errors
- \_\_\_\_\_ Notes on cross - checking behaviors
- \_\_\_\_\_ Rereading
- \_\_\_\_\_ Self-corrections
- \_\_\_\_\_ Substitutions
- \_\_\_\_\_ The sentence you write about errors and self-corrections used or neglected [M, S, V]
- \_\_\_\_\_ Tolds

Skim this running record:

Page	Title	E	SO
2	My Dog 4/19		
4	<div> <div>✓✓✓✓✓</div> <div>✓✓✓✓✓</div> <div>playing</div> </div>		
6	<div> <div>✓✓✓✓✓</div> <div>✓✓✓✓✓</div> </div>		
8	<div> <div>✓✓✓✓✓</div> <div>✓✓✓✓✓</div> </div>		
10	<div> <div>My dog likes to sleep</div> <div>✓✓✓✓✓</div> </div>		
12	<div> <div> <div>✓✓✓✓</div> <div>✓✓✓✓</div> <div>walk</div> </div> <div> <div>✓✓✓✓</div> <div>✓✓✓✓</div> <div>walks</div> </div> </div>		
14	<div> <div> <div>I like to go to a</div> <div>my dog likes to kiss me</div> <div> <div>walk with I like</div> <div>[picture] ✓✓✓✓</div> </div> </div> </div>		
16	<div> <div>✓✓✓✓✓</div> </div>		

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16. Do you share your running records with others? \_\_\_\_ Yes \_\_\_\_ No

17. If you answered yes, please complete the following table (If not, proceed to questions 18):

Who?	Why?	How Often?

**About You**

The following questions ask more about the context in which you teach Reading Recovery.

18. Circle your current role:

RR Teacher in Training	RR Teacher	RR Teacher Leader
------------------------	------------	-------------------

19. How long have you been in your current role? \_\_\_\_\_

20. How did you learn about the opportunity for your current role?

21. Was your Reading Recovery training your first experience with running records? \_\_\_\_ Yes \_\_\_\_ No

22. If you answered no, please describe your first experience with running records (If not, proceed to 23):

23. How many Reading Recovery students did you serve last year? \_\_\_\_\_

24. How many of those students successfully discontinued Reading Recovery? \_\_\_\_\_

25. How many Reading Recovery teachers does your school have? \_\_\_\_\_

26. Besides Reading Recovery, what are your other responsibilities at your school?

27. Circle how often you use running records in your other responsibilities at your school:

Never	Rarely	Sometimes	Often	Always
-------	--------	-----------	-------	--------

28. Are you a certified reading specialist in your state? \_\_\_\_ Yes \_\_\_\_ No

29. Would you be willing to further discuss your experiences and teaching practices? If yes, please fill in below:

Name \_\_\_\_\_ State \_\_\_\_ Email \_\_\_\_\_

Thank you for your time! ~ Rebecca Caufman

## APPENDIX C

### IRB Approval



#### Office of Research Integrity and Assurance

Research Hall, 4400 University Drive, MS 6D5, Fairfax, Virginia 22030  
Phone: 703-993-5445; Fax: 703-993-9590

TO: Julie Kidd, College of Education and Human Development

FROM: Aurali Dade *Aurali Dade*  
Assistant Vice President, Research Compliance

PROTOCOL NO.: 8668

PROPOSAL NO: N/A

TITLE: On the Record: Exploring Reading Recovery Teachers' Reported Uses of and Beliefs about Running Records

DATE: April 15, 2013

Cc: Rebecca Cauffman

Under George Mason University (GMU) procedures, this project was determined to be exempt by the Office of Research Integrity & Assurance (ORIA) since it falls under DHHS Exempt Category 2, research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior.

A copy of the final approved consent document is attached. Please use this stamped copy for your research.

You may proceed with data collection. **Please note that all modifications in your protocol must be submitted to the Office of Research Subject Protections for review and approval prior to implementation.** Any unanticipated problems involving risks to participants or others, including problems regarding data confidentiality must be reported to the GMU Office of Research Subject Protections.

GMU is bound by the ethical principles and guidelines for the protection of human subjects in research contained in The Belmont Report. Even though your data collection procedures are exempt from review by the GMU HSRB, GMU expects you to conduct your research according to the professional standards in your discipline and the ethical guidelines mandated by federal regulations.

Thank you for cooperating with the University by submitting this protocol for review. Please call me at 703-993-5381 if you have any questions.

## APPENDIX D

### Reading Recovery Teacher Leader Research Procedure and Script

Thank you for your help in my dissertation data collections.

Please provide 20 minutes during your PD session to complete the following steps:

1. Pass one questionnaire to each Reading Recovery teacher.
2. While teachers are looking at the cover page read the following script:

*We have been given the opportunity to participate in a doctoral student's dissertation research. The student's name is Rebecca Cauffman. She has been both a classroom and Reading Recovery teacher and is working on her degree at George Mason University in Fairfax, VA. The sheet that you have explains the study procedures, risks, benefits, confidentiality, participation, and contact information.*

*Participation is voluntary. If you agree to participate, you will be asked to complete the two-page paper questionnaire. The questionnaire should take approximately 15 minutes to complete.*

*The data in this study will be confidential. As soon as you are done you will place the completed questionnaire in this envelope that I will be mailing back to the researcher. In appreciation for your time, once you have turned in your questionnaire you may choose a leveled reader to add to your Reading Recovery library.*

*If you do not wish to participate in the survey, just turn in the survey without completing it.*

3. Teachers should place both completed and non-completed questionnaires in the self-addressed returned envelope.
4. Teachers who completed the questionnaire should be given a leveled reader upon completion (you may keep any extra books for your school district).
5. Please make any notes about the research process on the back of this paper.
6. Place this paper in the envelope with the questionnaires.

Thanks again for your support!

## **APPENDIX E**

### **Research Notes**

**Date of PD session(s):**

**Topic of PD Session:**

**Number of Reading Recovery teachers present:**

**List any questions the teachers had about the research process or questionnaire:**

**List any comments the teachers had about the research process or questionnaire:**

**List anything else you would like me to know about the process:**

## APPENDIX F

### Questionnaire Adaptation for Republic of Ireland Participants

16. Do you share your running records with others? \_\_\_\_ Yes \_\_\_\_ No

17. If you answered yes, please complete the following table (If not, proceed to questions 18):

Who?	Why?	How Often?

#### About You

The following questions ask more about the context in which you teach Reading Recovery.

18. Circle your current role:

RR Teacher in Training	RR Teacher	RR Teacher Leader
------------------------	------------	-------------------

19. How long have you been in your current role? \_\_\_\_\_

20. How did you learn about the opportunity for your current role?

21. Was your Reading Recovery training your first experience with running records? \_\_\_\_ Yes \_\_\_\_ No

22. If you answered no, please describe your first experience with running records (If not, proceed to 23):

23. How many Reading Recovery students did you serve last year? \_\_\_\_\_

24. How many of those students successfully discontinued Reading Recovery? \_\_\_\_\_

25. How many Reading Recovery teachers does your school have? \_\_\_\_\_

26. Besides Reading Recovery, what are your other responsibilities at your school?

27. Circle how often you use running records in your other responsibilities at your school:

Never	Rarely	Sometimes	Often	Always
-------	--------	-----------	-------	--------

28. Do you have a higher diploma in learning support education? \_\_\_\_ Yes \_\_\_\_ No

29. Would you be willing to further discuss your experiences and teaching practices? If yes, please fill in below:

Name \_\_\_\_\_ County \_\_\_\_\_ Email \_\_\_\_\_

Thank you for your time! ~ Rebecca Cauffman

## APPENDIX G

### Codebook for Questionnaire Items 4, 6, and 8

**Capturing Progress:** describe COLLECTING the data

**Assessing Difficulty:** describe REVIEWING the data

**Guiding Teaching:** describe USING the data

Then within each group common themes were identified and items were further coded and a codebook was created:

**Capturing Progress:** describe COLLECTING the data...Role of an Observer

<i>Code</i>	<i>What are they looking for? (RQ #2 – Uses of)</i>
<i>Teaching in Action</i>	SEEING learning based on teaching
<i>Reading Behaviors</i>	SEEING strategy use, problem solving, processing
<i>Independence</i>	what child can do without help
	<b><i>What do they appreciate? (RQ #1 – Beliefs About)</i></b>
<i>Observation</i>	Freedom to NOT teach, but enjoy the reading and closely watch the child
<i>Auto</i>	CHILD gets to see what they can do on their own
	<b><i>What do they NOT appreciate? (RQ #1-Beliefs About)</i></b>
<i>LESSON TIME</i>	Time it takes DURING the lesson to complete
<i>PASSIVE</i>	Want to teach/help student
<i>COLLECT PERFECT</i>	Find the collection process hard to do “perfectly” and quickly

**Assessing Difficulty:** describe REVIEWING the data for...Role of an Assessor

<i>Code</i>	<i>What are they looking for? (RQ #2 – Uses of)</i>
<i>Strengths</i>	what the child DID well
<i>Weaknesses</i>	what the child DIDN'T do well or needs help with
<i>Strengths &amp; Needs</i>	what the child did AND didn't do well/need help with
<i>MSV</i>	types of errors made/cues used in self-correction
<i>Accuracy</i>	quantifying the reading into number or book level
	<b><i>What do they appreciate? (RQ #1 – Beliefs About)</i></b>
<i>Data</i>	WHAT they collected and recorded = Evidence/Information/Documentation/Record/Picture/Snapshot
<i>Feedback</i>	Checks teaching and/or shows student learning/growth
	<b><i>What do they NOT appreciate? (RQ #1-Beliefs About)</i></b>
<i>PLANNING TIME</i>	Time it takes to score and analyze AFTER the lesson
<i>SCORE PERFECT</i>	Desire to calculate and analyze “perfectly” and correctly

**Guiding Teaching:** describe USING the data to...Role of using Formative Assessment

<i>Code</i>	<i>What are they looking for? (RQ #2 – Uses of)</i>
<i>Teaching Point</i>	pinpoint EXACTLY what the child needs to learn NOW
<i>Praise</i>	identify helpful reading behaviors used and reinforce these
	<b><i>What do they appreciate? (RQ #1 – Beliefs About)</i></b>
<i>Road Map</i>	inform what to do in FUTURE lessons BASED on evidence
	<b><i>What do they NOT appreciate? (RQ #1-Beliefs About)</i></b>
<i>DECIDE PERFECT</i>	Desire to make perfect choices, good decisions

## APPENDIX H

### Codebook for Item 11

Feeling – Negative	Stress, frazzled, queasy, rushed, can't jump in, don't put down as much info as I should, dread, pressure
Feeling – Neutral	Ok, fine, part of my job, nothing, quiet, central in the lesson, I must concentrate, sit up and take notice
Feeling - Positive	Enjoyment, comfortable, capable, excited, adrenalin rush, happy, great, curious, interested
Feeling – Expert	Confident, experienced, do one in my sleep, second nature
Use	No value is placed in statement  Analyzing, how data is used, what they look for and what they learn from it  Informed, enriched, speaking with someone who knows about reading, empowered, moment of truth, learn, insight
Belief	values is placed in statement  often provides reason why it is valued or states specifically that it is valuable

## APPENDIX I

### Codebook for Item 15

Code	Description
No Response	No response given. Skipped question.
Notation	Asked/commented on marks on running record or why the teacher didn't score it
Generic	Could be applied to ANY running record
Specific	Could only be applied to THIS running record focus is on meaning, comprehension, structure, or teaching NO mention of visual cues.
Visual – Broad	BROAD question/comment that notes this CHILD neglected visual cues, omitted words, lost place, skipped lines, or monitored reading.
Visual – Specific	SPECIFIC question/comment that notes this CHILD needs to learn to: LOOK at print, MATCH voice to print, or USE finger to read.



## APPENDIX J

### Codebook for Item 17

Code	Description
No Response	No reasoning provided
Collaborate	Working TOGETHER to analyze or plan (discuss, problem solve)
Compare	determine how student is performing in different settings and work for transfer to make behaviors consistent.
Evidence	It is proof, documentation, or a talking point about what they are doing in Reading Recovery
Instructional Coaching	Used to help others improve their instruction with the child
Help	Seeking ADVICE - tell me what to do. (help, feedback, input, answer questions)
Requirement	For Reading Recovery (Behind the glass/Teacher Leader asks) or school (evaluation, observation, RTI)

## APPENDIX K

### Codebook for Item 15 A Priori

Coding based on  
Hattie and Timperely (2007) Model of Feedback to Enhance Learning

Code	Description
No Response	no answer was provided. Question skipped or left blank.
Praise	generic praise about the TEACHER'S efforts/abilities/knowledge
Task Comment	COMPLETING & SCORING the running record: <ul style="list-style-type: none"> <li>o often very specific and surface level</li> <li>o correctness, neatness, notations</li> <li>o statement/directions on what the TEACHER should do next with child</li> </ul>
Task Question	COMPLETING & SCORING the running record: <ul style="list-style-type: none"> <li>o often very specific and surface level</li> <li>o correctness, neatness, notations</li> <li>o asks to clarify what happened DURING the RR</li> <li>o asks about learner behavior that may have been SEEN during the collection process</li> <li>o often could be applied to ANY running record – How did the reading sound? (Fluency questions)</li> <li>o Written in past tense (Did/Was the child...)</li> <li>o answered simply as a report (often yes/no)</li> </ul>
Process Comment	ANALYZING the running record: <ul style="list-style-type: none"> <li>o reports on what THEY notice but does not give direction on how to USE this information</li> <li>o next steps refer to what the LEARNER should do and not the teacher</li> </ul>
Process Question	ANALYZING the running record: <ul style="list-style-type: none"> <li>o asks about REASONS that errors may have occurred that rely on teacher knowledge (specific to this rr)</li> <li>o cues direction for searching and strategizing</li> <li>o asks about comprehension of the text in relation to errors</li> <li>o Answer requires THINKING/REFLECTION by the teacher to answer and is specific to THIS running record</li> </ul>
Reflection Comment	PROMPTING to guide teaching/thinking <ul style="list-style-type: none"> <li>o Identifies BIG ideas about this student's learning ACROSS lessons (not just this specific rr)</li> <li>o helps to evaluate abilities, knowledge, effort, goals</li> </ul>
Reflection Question	PROMPTING to guide teaching/thinking <ul style="list-style-type: none"> <li>o Asks to synthesize knowledge about the learner and report on PATTERNS (not just this specific rr).</li> <li>o Asks to report on patterns seen (1 to 1 matching)</li> <li>o Asks to evaluate teaching decisions (good book?)</li> <li>o helps to evaluate abilities, knowledge, effort, goals</li> <li>o written in present tense (Does/Can the child...)</li> </ul>

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## **BIOGRAPHY**

Rebecca L. Cauffman graduated from Grosse Pointe North High School, Grosse Pointe Woods, Michigan, in 1993. She received her Bachelor of Science from Virginia Polytechnic Institute and State University in 1997. She was employed as a private school teacher in Fairfax, Virginia for two years and then as a public school teacher for Fairfax County for four years. She received her Master of Arts in Education from Virginia Polytechnic Institute and State University in 2003. She was trained as a Reading Recovery teacher for Fairfax County Public Schools during the 2003 - 2004 school year, and she served as a Reading Recovery teacher for four years before beginning her Ph.D. program at George Mason University. As a student at George Mason she served as a Graduate Research Assistant and Adjunct Faculty for the Early Childhood Education Department. She is currently working as a Reading Specialist for Montgomery County Public Schools, Christiansburg, Virginia.