

Running Head: RUNNING RECORDS IN MONTESSORI CONTEXT

Observational Assessment of Literacy Development:  
The Use of Running Records in the Montessori Classroom\*

Alison R. Stern

University of Washington - Bothell

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Abstract

This classroom-based research project was designed to determine what information could be gathered about Montessori students' literacy development through the use of the running record, and how this information could be used to individualize literacy instruction. The running record is an observational based literacy assessment protocol developed by Marie Clay. I gathered data by regularly taking running records while my students read selections of continuous text. In the cycle of action, analysis and reflection, I used the running record technique with five specific students in my class. I also took anecdotal notes on comments from these students and other behaviors that they exhibited in the classroom to help me individualize the literacy instruction that I offered them. I also made significant changes to the way that I taught and assessed literacy development. My beliefs and attitudes about literacy learning changed as well. My intention is that the information that I have gathered over the course of this project will make a meaningful contribution to the assessment discourse within the Montessori community.

## Introduction

If everyone learned how to read in the same way, keeping track of their learning and teaching them would be easy. Before I started the work associated with this project, I did not have the finely tuned literacy observation tools necessary to document the learning process of beginning readers. However, I could see that there were many different trajectories that all led to literacy. Some children exploded into reading, adopting all of the necessary knowledge and strategies as if by magic, other children needed to be shown each step along the way. Even after completing a state teacher certification program, a 14 month Montessori certification program for the elementary grades, and five years of classroom teaching, I still found that I was looking for a more accurate and longitudinal way of observing my students' trajectories into literacy as a means of individualizing and improving the literacy instruction that I offered my students.

My advisor Nancy Place introduced me to Marie Clay and her methods for observing literacy learning. I had previously heard about an observational assessment technique called the running record. I was interested in learning about the person who developed it and in thinking about how to use it in my classroom. I started to think that the running record and the information that it could give me about my students was exactly what I had been looking for. I decided to use my culminating project to answer the questions: "What can I learn about my students' reading from running records? How will the information that I get from running records inform my instruction of individual students?"

## *Context*

I carried out this project in my classroom, which is situated in an independent, twenty-one year old, privately owned Montessori School in a suburb of Seattle. The school serves primarily middle and upper-middle class families although at least 5% of the families receive

financial aid. Most of the children in the elementary grades are White. Many of the children (<30%) in the Preschool/Kindergarten classes are Asian/Indian. My classroom is called the Lower Elementary and is traditionally intended for children ages 6-9, although on occasion, I have children as young as 5 and as old as 10. This year I started out with 10 students and gained one more in early March. There were 7 boys and 4 girls.

My school / research site is considered a traditional Montessori school meaning that the teachers are instructed in the Montessori philosophy method and learning materials and that these methods and materials are used throughout all of the age groups taught at the school. The school has an environmental and social justice emphasis, which is reflected in the mission statement: “The -----Montessori School was founded in 1986 for the purpose of providing opportunity for children to maximize their potential by providing an environment in which each child can grow in his or her own time and way while learning respect for self, others and the environment all people share.” My supervisor, the school’s founder and director, was interested in and supportive of my Culminating Project and she coincidentally studied emergent literacy and the work of Marie Clay while writing her master’s thesis at Seattle University. I did not know about that until I approached her to talk about my ideas for my Culminating Project.

### *Rationale*

This is an important project because I plan to share my findings with other Montessori teachers who are struggling with accurately assessing the needs of their early readers. There is a lack of discourse about assessment within the Montessori community although in a survey of Montessori teachers looking at assessment practices, most of the teachers surveyed indicated that they would be very interested in professional development opportunities dealing with assessment. They also indicated that they would like more information about what practices

other Montessori teachers are using successfully (Roemer, 1999). My intention in developing this project was that by using running records and reflecting on them as I planned subsequent lessons, the process would help me to more closely observe my students and “follow the child,” a task that Maria Montessori is famous for having given to her teachers-in-training. My hope is that the information that I have gathered over the course of this project will help me make a meaningful contribution to the assessment discourse within the Montessori community.

## Literature Review

As I set out to review the literature that was relevant to my topic, I defined my research questions as follows: “What can be learned from using observational assessment as a tool for monitoring literacy development and shaping individualized literacy instruction in a Montessori elementary setting?” and “How will the information that I get from taking records of children’s oral reading and analyzing them impact the way that I look at and carry out literacy instruction?”

While I had seen other Montessori teachers using running records in their classrooms, I was not able to find anything written on the topic of using running records in Montessori classrooms. I was only able to find three empirical studies dealing with running records. Although I planned to use the running record procedure in this project, my analysis of the running records was informed by the procedures used in miscue analysis. First I will explain the procedures for miscue analysis and running records, which are both types of observational literacy assessment. Secondly, I will review the research findings having to do with the use of running records as a form of classroom assessment. Thirdly I will discuss the link between literacy assessment and classroom instruction. In conclusion, I will describe how assessment normally takes place in Montessori schools and discuss my rationale for why I think the technique of using running records is a good match with the Montessori philosophy.

### *Defining Miscue Analyses and Running Records*

Much of what happens during the reading process is internal and therefore can be difficult to delineate and assess. Teachers frequently listen to their students read out loud when they are assessing a student’s progress. Two tools that teachers use to record and assess their students’ oral reading are the miscue analysis, and the running record (Steineger, 2001). Miscue

analysis and running records are based on the construct that the errors children make during oral reading provide a revealing window into how they are processing text and making sense of written language (Clay 1991; Goodman, 1965; Weaver, 2002). In this section, I will describe the techniques for both the miscue analysis and running record data gathering methods and subsequent analysis. I will be primarily using the running record to assess my students' reading, but the protocol for the miscue analysis also informs my research. The three linguistic systems that are very important to the analysis of these two measures will be discussed here as well.

*Miscue analysis.* In the late 1960's, Ken and Yetta Goodman developed a research methodology called miscue analysis in order to develop an understanding of the reading process (McKenna & Picard, 2007). Through the examination of "miscues," defined as any time that the reader deviates from reading the actual words of the text, the Goodmans developed a new model of how the reading process occurs (Goodman, 1965). While there is certainly not a universal consensus that the Goodmans' model of the reading process is correct, in fact their work in this area is somewhat controversial (Adams, 2000; McKenna & Picard, 2007; Nicholson, Lillas and Rzoska, 1988), they are well recognized for their contributions to the understanding of literacy development. The Goodmans are credited with developing the theoretical frame that oral reading miscues are not random errors and that they show a logical representation of what the reader understands about the reading process and which cues they are using (Adams, 2000; Taberski, 2000).

While there are several variations on exactly how miscue analysis is done, Goodman, Watson and Burke (2005) provide the authoritative protocol on how this measure is to be carried out. When a researcher/teacher conducts a miscue analysis, the reader chooses or is given a piece of continuous text that is at least 500 words in length and will take between fifteen and thirty

minutes to read. The reading is almost always tape recorded for later analysis. The teacher must prepare ahead of time a copy of the text that the reader is reading called a typescript, which allows space for special miscue analysis notation. The teacher marks the text anytime the reader has a miscue. After the reader completes the reading task, they are asked to provide an oral retelling of the story. The teacher might ask some more in-depth questions to help determine the reader's level of comprehension. The following analysis of the miscues is detailed and complex. The teacher begins by listening to the tape of the reading and completing the coding on the typescript. Each miscue is reviewed individually and the person coding the miscue analysis answers a series of questions about each of the miscues. The coder is asked to determine if the miscue was syntactically and semantically acceptable within the entire context of the story. Next the coder is asked if the miscue changes the meaning of the story. Finally, the coder is asked if the miscued word is graphically similar to the word as it appeared in the text. The miscues are all recorded and coded on a separate form called a Reader Profile and these forms are used to look for patterns in the reader's response to the text as well as providing a durable record of the reader's behavior over time (Goodman, Watson, & Burke, 2005).

*Running records.* A similar record of oral reading called the running record, was originally developed by Marie Clay, a major theorist of child literacy acquisition and developer of the internationally recognized Reading Recovery program (Anderson, 1999). Clay was interested in the efficacy of early intervention in cases of children with reading difficulties. In New Zealand in 1963, Clay set out to study ways to document the process of literacy development going astray close to the onset of instruction. In order to gather data, Clay needed to develop observational assessments that were detailed and reliable in order to document change over time in the one hundred students that she studied over the course of a year (Gaffney &



Askew, 1999). The running record technique was one of several that Marie Clay developed to observe, document and assess literacy learning. She gives a detailed explanation of how to conduct these observational assessments in An Observation Survey of Early Literacy Achievement (2005).

When a researcher/teacher takes a running record, he/she sits next to a child who is reading from a piece of continuous text, such as a storybook. Only one hundred words of continuous text are required for a running record. On a blank sheet of paper, the teacher codes each word. The teacher makes a check mark or small line for each word read correctly. The teacher also records instances of error and times when a child corrects his/her own error. Similarly to the miscue analysis procedure, if the reader substitutes a different word for the word in the text, their substitutions are also recorded. If the child repeats words or sentences, this is also marked. Afterwards, the teacher analyzes the running record – seeking to gain information from the times when the child made an error or self-corrected an error, and how he/she dealt with it.

One of the primary uses of the running record is to determine if the child is reading a text at the appropriate level of difficulty (Clay, 2005). The first level of analysis that the teacher commonly looks at is quantitative – using a percentage of accurately read words called the accuracy rate. The accuracy rate is calculated by dividing the total number of words in the text by the number of miscues that the child did not go back and self-correct. If the child read between 95% and 100% of the words accurately, the text is considered to be “easy” for that reader. If the child read between 90%-94% of the words accurately, the text is considered to be at the “instructional” level. If the child read 89% or fewer of the words accurately, the text is considered “hard” and there is a good chance that the reader’s comprehension will decline at this

point. Taberski (2000) writes that she considers “easy” books suitable for independent reading, “instructional” level books appropriate for guided reading with support, and “hard” books suitable for situations with increased support such as a read aloud or shared reading.

The next layer of analysis that the teacher may use is the analysis of what language cueing systems (discussed in the following section) the child was attending to at each instance of error and self-correction. At each instance of an error, the teacher marks “M” if the child used the meaning or messages cues in the text, “S” if the child used the syntactical or structural cues, and “V” if the child used the visual/graphophonemic cues in any part of the word (Clay, 2005; Ross, 2004; Taberski, 2000).

The third layer of analysis that a researcher/teacher may look at when analyzing a running record is the reader’s use of strategies. The strategies that the teacher will be looking for vary depending on the reader, but some examples are: matching words 1:1 when reading a familiar text, using known words to monitor what is being read, the use of the three above mentioned cueing systems in an integrated manner, the identification and self-correction of miscues, and the use of beginning syllables and analogies to solve unknown words (Beaver, 2001). The teacher can use the resulting information to identify the patterns and thinking processes of individual students and plan what to teach them next. By reviewing several running records taken with the same child, the teacher can see how the patterns of errors change over time and concretely witnesses the development of processing strategies and strengths (Clay, 1991). The teacher can use the running record data to help make challenging and fine-tuned instructional decisions (Clay, 1991; Schwarz, 2005; Taberski, 2000).

*Linguistic cueing systems.* With both the miscue analysis and running record techniques, the researcher/teacher is left with a document to review and analyze. The findings provide

individualized information about specific reading behaviors. The purpose for the data collection dictates the depth of the analysis to be carried out. While both data gathering techniques have been used for research in a variety of settings, for our purposes, we will limit our discussion to the use of these techniques by classroom teachers. A major piece of the analysis for miscue analyses and running records is the examination of what cues the reader attended to during the reading and what cues the reader failed to use or used inconsistently. The construct of the three language cueing systems was identified and developed by Kenneth Goodman through his early research with miscue analysis (McKenna & Picard, 2006; Taberski, 2000; Weaver, 2002). These three systems are referred to as the graphophonemic system, the syntactic system, and the semantic system (Goodman, Watson & Burke, 2005). The three systems are not thought to work in isolation, but in a complicated interplay along with readers' individual beliefs and background called their *pragmatics and sociocultural context*.

The *graphophonemic system* deals with the interplay between the written aspects of language and the sounds of oral language. This highly visual system is at work when children learn to match the symbols of letters with the sounds that they typically are already using in their oral language. When we ask a child to “sound out” a word, we are asking them to use this system. The teaching of phonics is the teaching of the graphophonemic system.

The *syntactic system* deals with the relationship of words and sentences within a piece of continuous text. Goodman, Watson and Burke (2005) write that “[t]he way humans organize words in a sentence or phrase and the relation of sentences to each other, whether for reading, writing, speaking, or listening, is its syntax (pp. 32).”

The semantic system deals with what the reader already knows about the world and about language. The reader is using the semantic system when they think about the meaning of

what they are reading and use that to make predictions and inferences about the text. If a piece of text read, “Please wake up and set the table,” and a student read “Please *wash* up and set the table,” they would be using the syntactic system because the phrase “wash up” is frequently present in the English language. The student used semantic cues to know that in the context of getting ready for a meal and setting the table, “wash up” would make sense. The student would also be using the graphophonemic system to see that the word “wake” begins with “wa--” as does “wash” but the student would not have looked all the way to the end of the word to notice that the ending of “wake” is “—ke.” In this example, the student used all three cueing systems, but did not use the graphophonemic system effectively enough to avoid the miscue.

In the cases of both the miscue analysis and the running record, the teacher is looking for “patterns of responding” to these cueing systems and using that information to guide them in their planning of future instruction (Estice, 1997). I will now go on to explore the research that currently exists investigating the classroom usage of observational literacy assessment. I looked into the research hoping to find that others had already conducted studies looking at the use of running records and miscue analysis in the classroom and how these assessment measures influenced instruction and achievement. I had planned to orient my research questions based on what the previous findings were. Surprisingly, I was only able to find three studies dealing with the use of running records in the classroom and I was unable to find any dealing with the use of miscue analysis in the classroom.

### *Research Findings*

Miscue analysis and running records are both regularly used in research projects to gather data about reading behaviors and achievement, but there is very little empirical data about teachers using running record information to inform their beliefs or instructional behaviors. Ross

(2004) writes, “[a]lthough running records are frequently used in research, there is little psychometric data available about the procedure...the consequential validity of running records (e.g.. the extent to which the assessment procedure contributes to higher achievement) has not been addressed because the effects of the assessment have not been disentangled from the instructional treatments (such as reading recovery) in which the assessment is embedded (p. 187).”

It is interesting to note that both the miscue analysis and running record techniques were developed by literacy researchers to be used in their own research, and that both of these techniques have been adopted by classroom teachers and reading specialists and are still being used more than forty years after their respective conceptions. There is ample evidence that teachers use running records in their classrooms (Leslie & Jett-Simpson, 1997; Routman, 1999; Schwartz, 2005; Taberski, 2000), yet little empirical evidence that teachers alter their instructional methodologies or content based on running record data. In a 2002 survey of 4,452 reading specialists conducted by the International Reading Association, the researchers found that 79% of reading specialists in the United States use observational assessment methods often and 62% indicated that running records were a very important tool (Bean, Cassidy, Grumet, Shelton & Wallis, 2002). Based on the fact that these measures are still considered useful, I find it very surprising that such little data exist showing ways that teachers use the data taken from running records to inform their teaching.

In a 2004 study, Ross investigated the use of running records in the classroom as a way for teachers to match their implementation of literacy instruction with the individualized needs of their students. This study was based on previous effective schools research showing that frequent classroom based assessments lead to improved student achievement (Hoffman, 1991). In this

fairly large study, 2,800 of the third grade students in an Ontario school district were divided into one of two treatment groups. One group had teachers trained to use running records as an assessment measure while the control group had teachers trained in classroom based action research as an assessment measure. Ross found that the students in the running record group increased in their literacy achievement and that they outperformed the students in the other treatment group. This was a correlational study so it is not possible to know what specifically caused the increase in students' literacy achievement however, it is likely that the specific individualized information teachers in the running record group gleaned from their students' running records helped them to modify their literacy instruction in ways that positively impacted student achievement.

In a 1984 study, Dunkeld and Dunbar used Marie Clay's (2005) entire set of observational assessments and protocols (including running records) with first graders in a suburban Oregon school district. Dunkeld and Dunbar were interested in the ways that teachers would react to the assessment data and how they would make changes to their instruction based on the data. They were also interested in looking at the students' individual trajectories of literacy development over the course of the school year. The assessments included in their diagnostic survey were: reading three word lists, completing a running record, a letter identification test, a concepts about print test, a writing sample, and a dictation test. The researchers prepared literacy profiles for all students in the study in both January and April of a single school year by individually implementing each of the literacy assessments with each child. They presented and discussed the profiles with the classroom teachers and discussed possibilities for instructional implications. The teachers were interviewed at the end of the school year and

were asked questions about their reading program, what they had learned from the survey, and what effects the survey had (if any) on their teaching.

Dunkeld and Dunbar (1984) found that the running record was the most informative section of the assessments that they gave. The researchers emphasized that the acquisition of reading strategies and rates of progress are highly individualized and that the information gained from Marie Clay's diagnostic survey can have instructional implications for individual children but not for the entire class. The two teachers who participated in the study found the assessment information helpful and felt confident that they could use the information to plan appropriate programs and activities. Unfortunately, the researchers did not document the changes that the teachers made in their instruction of individual students. In the end, the researchers concluded that this method of individualized literacy assessment is more valuable than any other diagnostic reading tests that they had seen (p. 32).

Fawson et al. (2006) conducted a study examining the reliability and validity of running record results. The researchers noted the prevalence of the running record as a classroom assessment tool and the increased need for improved reading-performance assessments, but questioned the generalizability of the individual running record results. Since teachers and reading specialists make instructional decisions based on running record results, the researchers were interested in examining the reliability and validity of the running record as an assessment tool in order to insure that these instructional decisions are based on a valid measure.

Ten first grade teachers participated in the study and were given training in the use of running records through a series of in-service sessions. Ten students participated in the study and were chosen to represent a range of reading abilities: above average, average, and below average. All of the students had recently completed first grade and were asked to read two texts that

represented the average reading level for the end of first grade. The ten students were each videotaped reading both of the texts. The ten teachers were asked to take running records for each of the videotaped readings and the results were analyzed.

The researchers found that the running record scores for an individual student show good reliability across raters if three passages were taken and the scores averaged together. In some cases they found that one rater could produce reliable scores but in some cases it was necessary to have two teachers rate a student and average their scores together to produce reliable results. The researchers did not find reliability across reading level. For example, if a student could read one level 14 text with a certain degree of proficiency, it did not guarantee that he/she could read another text at level 14 with the same degree of proficiency. This was hypothesized to be the case because a student may have difficulty with a particular passage because of unfamiliarity with the subject matter and associated vocabulary, which could falsely represent their reading ability as being less developed than it really is. The researchers caution teachers not to make important placement decisions about students and reading proficiency based on one running record score, because several running records are needed to produce a valid result. Based on the data that showed a wide degree of variance in results caused by variations in the text that the children were asked to read, Fawson et al. (2007) also caution teachers to match children to text carefully and to present any unknown vocabulary or subject matter ahead of time to increase reading success.

The empirical research that I have reviewed in the above section points favorably towards the use of running records in elementary classrooms. Ross (2004) found that the use of running records correlated with a statistically significant increase in students' literacy abilities. This is in line with research indicating that systematic formative assessment carried out in the classroom



(such as the use of running records) improves instruction and contributes to increased student achievement (Black & William, 1998). Dunkeld and Dunbar (1984) found that running records were a valuable source of information about individual students' literacy trajectory and Fawson et al. (2006) found that running records can produce reliable assessment scores. The information gleaned from running records points towards what the individual student still needs to learn in terms of reading strategies and skills and this in turn, helps the teacher design appropriate instruction. This links the process of assessment with future instruction.

### *Linking Literacy Assessment to Instruction*

The primary benefit of individualized literacy assessment is that the procedure and subsequent analysis allow teachers to provide personalized instruction to individual students at their appropriate instructional level. Observing and documenting the progress of individual students in the classroom is a complex task that requires careful and precise monitoring.

Marie Clay (2005) writes:

Classroom teachers can observe students as they construct responses by moving among them as they work. They can observe how individuals change over time by keeping good records; and they can allow children to take different learning paths to the same outcomes because they are clearly aware of the learning that is occurring. Such teachers are like craftspeople, monitoring how their products take shape (p.7).

The authors of the authoritative text on the miscue analysis method for teachers, Reading Miscue Inventory: From Evaluation to Instruction, write that their method is used by teachers to “provide specific information about a student’s reading ability, linguistic knowledge, and strategy use, which allows teachers to plan reading programs and instructional strategies that

build on reader's strengths rather than on weaknesses (Goodman, Watson & Burke, 2005. pp. 4).”

Sharon Taberski (2000) a classroom teacher writes:

[R]unning records provide the information I need to make wise teaching decisions. They help me: decide whether the book a child is reading is matched to her stage of reading development, analyze a child's miscues to see which cueing systems and strategies she uses and the ones she might learn to use more effectively, [and to] track a child's reading progress over time (p. 45).

As I seek to find out what I can learn about my students from running records, I find confirmation from the abovementioned three sources that researchers and teachers can use observational reading assessments to learn quite a bit about individual readers in order to improve literacy instruction. Some of the things that I hoped to learn about my students' reading based on the literature that I have reviewed here are: what linguistic cues and strategies readers are using (Goodman, Watson & Burke, 2005; Taberski, 2000), what qualitative and quantitative changes are occurring over time, what diverse paths individual readers are taking to a common outcome (Clay, 2005), and if students are reading books that are matched to their stage of reading development (Taberski, 2000).

As I previously noted, there is a lack of empirical research about the relationship between observational literacy assessment and its influences on teacher's instructional decision-making. One of the studies that I have previously reviewed (Ross, 2004) found a positive correlation between the use of running record assessment and student learning. The other study (Dunkeld & Dunbar, 1984) found that the running record was a useful tool for making more accurate instructional decisions on an individualized basis. I did not find any studies conducted by

teachers in their own classrooms, nor did I find any looking at the use of observational literacy assessment in Montessori classrooms. In the next section, I will be briefly outlining the Montessori pedagogy and discuss what types of assessment *are* being used in this context. Based on that foundation, I will demonstrate the need finding accurate and individualized means of assessing students' literacy development in the Montessori context.

### *Assessment in Montessori Schools*

Montessori schools follow the educational philosophy and teaching methods designed by Maria Montessori (1870-1953), and use the learning materials that she designed. Montessori was the first woman to become a medical doctor in Italy. She went on to study child-development and learning, founding the first two Montessori schools in Rome in the early part of the twentieth century (Chattin-McNichols, 1992). Montessori “had a clear theory of development, primarily a constructivist theory similar to Piaget’s” (Chattin-McNichols, 1992, p. 3; Roemer, 1999). Some of her earliest influences were Jean Itard, famous for his education of the “wild boy” found abandoned in the forest of Aveyron; and Edouard Seguin who became well known for developing educational methods for children with learning disabilities (Standing, 1957). Montessori based her educational research on the observation of children of diverse cultures in many different countries (Lillard, 1996). Children in Montessori classrooms today experience an educational model emphasizing individualized instruction and learning at one’s own pace within a carefully prepared environment (Roemer, 1999).

It is difficult to make generalizations about Montessori schools in the United States because the name “Montessori” is in the public domain, and therefore it is possible for any school to call itself a Montessori school. The teachers may or may not be trained in the Montessori method and the school may or may not use Montessori-specific learning materials.

When researchers set out to study some aspect of Montessori education, they are normally associated with one of the two major Montessori organizations AMI (Association Montessori Internationale) or AMS (American Montessori Society). For the sake of consistency, the researchers primarily base their research on schools and teachers that are accredited by one or the other major organization.

Like all teachers, Montessori trained teachers must find effective and efficient ways to gather information about their students in order to track their development and make important instructional decisions that will impact their future teaching. Montessori teachers are universally expected to use observation as their main form of assessment in all areas of the curriculum (Neubert, 1992). This observation of students can sometimes be looked at as *naturalistic assessment* in which appraisal occurs during the course of normal student/teacher learning interactions. In this case, the teacher is like an anthropologist, learning about his/her students as a participant observer (Keefe & Jenkins, 2002). Observation is not always done on an ongoing, informal basis. Sometimes teachers plan a special time of day to observe their students and gather information about some aspect of the occurrences going on in their classroom. Angeline Stoll Lillard, author of *Montessori: The Science Behind the Genius* (2005) writes, “An ability to observe children and detect their needs is fundamental to good Montessori teaching (p. 285).” She goes on to explain that Maria Montessori recommended a scientific background for teachers because of the emphasis in science on the training and honing of observational skills.

In Montessori teacher training programs, the student-teachers are taught that observation is the primary form of assessment that they will use in their future classrooms to gain information about their students. However, guidelines by which Montessori elementary teachers assess their students are not at all well defined (Roemer, 1999). Kathy Roemer, affiliated with

the American Montessori Society, studied the methods of assessment used in a portion of Montessori schools in the United States. Roemer found that although those Montessori teachers surveyed used a mixture of “alternative” and “traditional” assessment methods, they spent most of their assessment time observing students and their work, and meeting and talking individually with students either informally or as part of one on one interviews or conferences. She found that most of the respondents were looking for more information about assessment processes that Montessori teachers were using successfully. She also found that professional development for Montessori teachers dealing with assessment was non-existent, and that teachers were very interested in this type of professional development.

*Running Records and the Montessori Philosophy*

Since so much of what a child does cognitively while they are reading is invisible and hard to detect, it is important for teachers to have a systematic way to document those things that are observable while a child is learning how to read. Running records help the teacher make note of what types of errors are made, what cues the child is attending to and what strategies they are making use of. These running records can be looked at longitudinally to see that progress is occurring over time. Based on the records that are taken, children can be identified who need extra help with a particular area of literacy skill development.

There is a clear connection between the work of Montessori which emphasizes the assessment of children’s learning through careful observation, and Clay who set out to scientifically record her observations of what children do while they are reading.

Clay is similar to Maria Montessori in her belief that education must proceed from careful observation of the child. In fact, Clay admonishes her students that observation is the key to appropriate instructional decisions by the educator and

reminds teachers to observe and follow the child rather than impose on the child their own preconceived notions about how children learn (Boehnlein, 1995 p. 72).

Drawing from the work of Clay and using the running record assessment tool that she developed, I set out to discover what I could learn about my students' literacy development within the Montessori context.

## What Happened/What Does It Mean?

### What I Learned About My Students, How I Learned it, and How it Changed My Instructional Practices

The goal of this project was to gather information that would help me to answer my research questions. The questions are: “What can I learn about my students’ reading from running records” and “How will the information that I get from running records influence my instruction of individual students?” I set out to gather data by regularly taking running records while my students read selections of continuous text from our classroom library. I analyzed and reflected on the data that I collected. In the cycle of action, analysis and reflection, I used the running record technique with specific students in my class. I also took anecdotal notes on comments from these students and other behaviors that they showed in the classroom to help me individualize the literacy instruction that I offered them. This went on in a continuous cycle.

I specifically observed and took running records for five of my students for the purposes of this project. The students that I selected were a five year old girl, a five year old boy, a six year old boy and two seven year old boys. I chose these students because they were at early stages of learning how to read at the beginning of the school year and they were continuing to make interesting cognitive steps toward literacy, which I was able to document through this project. I did not choose the other students because they were already fluent readers who had established what Marie Clay would refer to as a self-extending system of reading (Clay, 1991).

Beginning with the Implementation Phase of this project, which took place during Spring Quarter, 2007, I took a running record with each of these students once a week. I continued to record any anecdotal comments or behaviors that I observed in the classroom. This went on for 10 weeks. At the beginning of the year I assessed each student’s reading level using the

Developmental Reading Assessment, which was developed by Joetta Beaver (Beaver, 2001). It is a commonly used reading assessment that is built on the running record and the concept of leveled books. I repeated this assessment at the end of the year to give me another source of data to measure the student's progress. At the end of the school year, I reviewed the running records, my anecdotal observations, the DRA assessments, as well as my teaching notes and journals.

I learned a lot about my students by using running records. I also made significant changes to the ways that I taught and assessed literacy development. My beliefs and attitudes about literacy learning changed as well. In what follows, I will detail what I learned about my students and what changed about my teaching. This section will have three divisions. The three sections will be based on the three levels of running record analysis: accuracy, use of the three linguistic cueing systems, and the use of reading strategies. I will illustrate what I learned about my students with excerpts from their running records, quotes from students, and my anecdotal notes and journal entries. At the end of this section I will summarize what I learned about my students with running records and how this changed my instructional practices.

#### *Accuracy and Reading Levels*

*Developmental Reading Assessment.* The first level of information that teachers get from running records is information about what level a particular child is reading at (Clay, 2005). From the Developmental Reading Assessment results and the early running records that I was doing for practice at the beginning of the school year, I quickly learned at what level my students were reading when they entered school in September. All student names have been changed to pseudonyms.



Table 1

Developmental Reading Assessment Reading Levels in September 2006 for Five Students.

<b>Name</b>	<b>Age</b>	<b>DRA Level</b>	<b>Stage of Literacy Development (See Appendix A)</b>
<b>Arthur</b>	7	8	Early
<b>Nick</b>	7	2	Emergent
<b>Lee</b>	6	4	Early
<b>Sam</b>	5	A	Emergent
<b>Ella</b>	5	4	Early

From this information, I knew that these students, had room to make lots of progress with their literacy development over the course of the school year. I was especially concerned about the two seven year olds who were not reading close to their grade level and knew that I would be working with all of the students individually to help them develop their reading abilities.

*Developing benchmarks.* I used the DRA to ascertain reading levels early on, but running records helped me see what level my students were reading at. Since running records are done with pieces of continuous text (usually little books) found in the classroom, I saw that I would need some type of benchmarked system of children's books to help me decide if the students were progressing through what Marie Clay calls a "gradient of difficulty". Clay wrote (1991):

Experienced teachers carry in their heads knowledge from children's responses to books and are able to 'level' a new story book against some benchmarks they have built up.

They have an internalized gradient of difficulty for reading texts. New teachers have yet to gain that experience and they need guidance as to how they know their children are gaining control over texts. They need to search for benchmarks (p. 201).

As Clay put it, I needed to "search for benchmarks."

I wanted to use books from my classroom library for benchmarks and needed to start "leveling" books, something that I had resisted previously because I did not want the students to

compare their levels in a competitive manner. I never ended up writing numbers in books because of this reason, but settled on keeping a list of leveled and benchmarked books for myself as a reference, and grouping baskets of color coded books in my classroom library to help the students find books that would be at their “just right” level.

When I started teaching in my classroom, there were already books labeled with green, red, blue and yellow stickers, which I had used as-is. These books were leveled and labeled by the teacher who had previously taught in my classroom. In the context of this project, I saw that while this was a good start, I needed to add a whole new category of easier text. I labeled the easier books with white stickers. On 3/17/07 I wrote in my journal:

I’m also noticing some mislabeling of the difficulty of books in the classroom library.

For example, I have Nate the Great as more difficult than Amelia Bedelia when I’m now seeing that they’re about the same. I’ve been re-labeling books and moving them around.

When I wrote that, I had noticed that my ability to level books had increased. At first glance, I had thought that Nate the Great books were more difficult than Amelia Bedelia books because they had fewer pictures, had more text on each page, and were longer overall. As I listened to children read books from both series, I noticed that the Nate the Great books had more predictable text that followed the flow of natural speech more easily than the Amelia Bedelia books. For this reason, I felt confident that they should both be labeled with a red sticker.

Throughout the year, my students were struck with wonder when they saw me peeling a red sticker off a book and declaring that I thought it was more of a green book or vice-versa, they seemed to think that the color of the sticker should be engraved in stone and never changed! The list of benchmarked books is something that I worked on all year and is still a work in progress. I based the leveling on my own experience with the children’s responses to the books, but I also

referred to Fountas and Pinnell's *Guided Reading Book List* (1996) and several websites that have searchable lists of leveled books to make sure that I was on the right track.

Table 2

My List of Benchmarked Books – The Numeric Levels are Reading Recovery Levels

1	Waiting, Snowman, Picnic, The Ghost
2	Cat and Mouse, It's Supermouse, Fish Swims, Fish Makes Faces
3	Hide and Seek, Jumping Game, Pizza
4	Boots, Brown Bear Brown Bear, The Gifts
5	Beep Beep, Get the Ball Slim, Mud!
6	Tadpole to Frog
7	My Pal Al, A Bug, A Bear and a Boy, Find a Caterpillar
8	Footprints in the Snow, The Foot Book, Go Dog Go, Eat Your Peas Louise, Tiny
9	Quick as a Cricket
10	Harry Takes a Bath, Clifford
11	Biscuit
12	
13	Polar Bear, Polar Bear What Do You See?
14	Snake and Turtle, Superkids
15	The Dippy Dinner Drippers, A Home for a Dog, It's Not Easy Being a Bunny I Love You Mouse
16	The Bull and the Fire Truck
17	Little Bear, Mr. Putter and Tabby, The Giant Stories, No Roses for Harry, Henry and Mudge
18	Tales of Oliver Pig, More Tales of Oliver Pig, Frog and Toad, Nate the Great
19	Cam Jansen, Horrible Harry, Amelia Bedelia, Pinky and Rex

20	Junie B. Jones, Bailey School Kids, Magic Tree House, Five True Horse Stories
21	Amber Brown
22	Beverly Cleary Books, Boxcar Children
23	Fantastic Mr. Fox, Bunnica

The process of developing this list of books helped me to discover that we needed to add more books to our classroom library at the lower levels. We had plenty of Henry and Mudge and Nate the Great, but we needed more books at levels 1-7. I proposed the purchase of more books at these levels to the Director of my school and she authorized my selection of about 50 new books. I found them on eBay, at used stores such as Value Village, and at Barnes and Noble and the University of Washington Bookstore. I found that my growing list of benchmarked books was a great asset, primarily because it helped me visualize the gradient of difficulty that my students would travel along and match readers to text more easily and accurately. I used running records as a way to check that I had matched readers to text accurately. This was done by measuring the readers' level of reading accuracy with a specific text using a running record.

*Measuring the readers' accuracy rate with running records.* During the analysis of a running record, the first information that is gathered is the student's accuracy rate. The accuracy rate is tabulated by counting the total number of words in the text that the child read. This total is called the word count. The word count is divided by the number of non-self-corrected errors or miscues that the child had in the course of reading. This results in the percentage of words that the child read accurately. The accuracy rate is used to two major ways. First, it is used to determine how challenging the book was for the child.

Table 3

## Running Record Accuracy Rates and Level of Reading Challenge

<b>Text Accuracy</b>	<b>Marie Clay (2005)</b>	<b>Sharon Taberski (2000)</b>
95%-100%	Easy	Just right for independent reading
92%-97%	Instructional	Just right for guided reading
Below 92%	Hard	Too difficult for children to read by themselves

I found the above framework (Table 3) extremely helpful in making decisions about what books children could read within various constructs – using the accuracy rates that I gathered with running records helped me to match children to the appropriately challenging level of text. *Matching students to text using accuracy rate and benchmarks.* As I used the list of benchmarked books that I was developing along with the data that I gathered through running records and what I noticed about individual students' likes and dislikes, I became increasingly confident about helping children choose new books as the year went on. This was an enormous area of professional development for me. I discovered that matching children to books is a crucial skill that can only be honed and perfected over time. During independent reading time, when children are quietly reading books to themselves, I had previously struggled to determine if children were reading books that were at an appropriate level of challenge. By using running records and finding out what level of books the students could read at 95% accuracy and above, I knew exactly what types of books they could beneficially read during independent reading time. By sharing this information with my students, they were much better at choosing appropriate reading materials for themselves as well. Sharon Taberski (2000) writes, "I find that children,

even very young ones, can read independently for extended periods of time when they are matched with books they can read with a 95% or higher word accuracy rate (p. 136).” I observed the same phenomenon going on in my own classroom.

In previous years, I did not offer very much direction to my students in terms of what books they read or looked at during independent reading time. Some of the students enjoyed the reading time, but those who were not yet transitional or extending (See Appendix A) readers often didn’t enjoy this time and were not on task after about 15 minutes. In retrospect, I now realize that it was because they did not know how to choose “just right” books for themselves and I did not support them in this task sufficiently. This year I placed a strong emphasis on reading “just right” books during independent reading time and found that when I drew independent reading time to a close after about 45 minutes, even the youngest 5 year olds were absorbed in their books and looked at me like I was crazy for ending the reading time that they were so enjoying. I defined “just right” books for my students as books that are not too easy, too difficult, and are about something that you are interested in.

A new type of reading system was starting to evolve in my classroom based on what I was learning about my students from running records. I gave some of my students gallon sized Ziploc bags with their names on the front and together we selected four or five “just right” books that they knew they could read during independent reading time. To my amazement, they largely liked their bags because they knew that with effort, they would be successful with what was in their bag. I had previously thought that a system like this was too restrictive and directed, but I now saw that the younger readers were depending on me to guide them towards books that they could actually read, and that they wanted and needed my help with that task. Lee was the first

student that I tried giving a bag of “just-right” books to because he seemed lost during independent reading time. This is what I wrote about him in late September:

At first during independent reading, Lee seemed to be flailing in uncharted waters. I gave him a gallon-sized plastic bag with some just-right books in it. That seemed to help him feel less confused and more confident. He was frequently clingy and didn't seem to be enjoying the independent reading. On the positive side, he carefully read and practiced his just-right books because he truly believed that this would help him become a better reader, and it did. For a while, our classroom reading motto was, “How do you get better at reading? By reading!” I frequently stated that everyone in our classroom was a reader and Lee was very keen on this. He was one of the least developed readers in the class and at first this seemed to concern him, but I think that he started to believe me that he would get better at reading and that I would teach and support him along the way.

I came to a startling realization: students wanted my help finding “just right” books because in their experience, I was someone who knew what they could read and would guide them to good books. In previous years, I did not know how to use running records or the Development Reading Assessment and did not know what level of text to direct them towards, basing my recommendations more on instinct. The students didn't seem to need *my* help because I didn't know any more than they did about finding “just right” books.

I knew that my book matching skills had dramatically improved when I got an email from Nick's mom. Nick joined our class in February as an eight year old and had been openly classified in his previous schools as a “struggling reader.” He was reading at about a level 2 as assessed with the DRA. His mom told me that he did not read to her at home at all because it was too frustrating for him. This made me think that maybe he was being given books that were too

challenging. After a few weeks of helping Nick find success with books that were easy enough for him to read, he asked to bring one home to read his mom. He started bringing home a freezer bag of books that he had already read at school to read with his mom at home. Then he would return them and have me help him pick out more to read to his mom at home. Then I got this email:

I think Nick is ready for different books. He has basically memorized the ones he has. I have many level one books but when I ask him to read them he gets frustrated that they're "not just right" and insists that you are the only one who can pick books for him. So, I'd really appreciate some books for him to take home. Or I can also get them at the library with your seal of approval (Nick's mom, personal communication, May 2, 2007).

I took this email as a huge success. Even though Nick's mom was slightly annoyed that he was refusing to read the books that he already had at home, he had clearly started to trust me to only give him books that he could be successful with, and his mom was reading with him at home every night! About a month later, I got another email from Nick's mom:

Hi Alison, I would really appreciate some books for the weekend. Since we didn't have any that you picked out Nick agreed to try reading one that I gave him, "Harold and the Purple Crayon". It was above his level but he did amazingly and was so proud of himself. Still, books from you would please him more. I see tremendous progress and am so thankful to you for helping him get this far (Nick's mom, personal communication, June 7, 2007).

This was evidence that I was learning important things about my students with running records. Even at the most basic level, using running records to find the reader's accuracy rate was helping me match students to books which was increasing the amount of time that they



could stay on task during independent reading, and it was establishing a relationship of trust that as a teacher, I could supply the earliest readers with books that they could find success with.

*Traveling the gradient of difficulty using accuracy rates and benchmarks as road signs.* It is important to provide students with the appropriately challenging text because after a piece of text has become too familiar, it will not longer help the student develop new strategies. Brown (2000) writes:

Young readers interaction with text changes as they move from learning about print, and how it works, to the labors of learning to decode, and on to the growing independence that fluency brings. As young readers make these changes, teachers need to change their instruction to nurture students' new abilities and promote continued progress. I suggest that we view text in a similar way. As students make progress as readers, teachers should provide text that supports and extends that progress (p. 292).

I used accuracy rate information from running records was to decide when to guide students towards more challenging text. When I did running records with students and found that they were reading at an accuracy rate of 95% or above and were understanding and enjoying what they were reading, I guided them to try more challenging text.

In the past, I did not systematically and consistently provide my students with specific texts based on their individual progress. I watched with great excitement as my students began to self-select and read more and more challenging texts. Of course I encouraged them and applauded their progress, and trusted that they would all naturally progress. Fortunately *almost* all of them did. The five students that I selected for this project were new to my classroom this year and were early in their process of learning how to read. I wondered how much it was appropriate to prod them forward along the gradient of difficulty. For the two older students,

Nick and Arthur, who were rapidly falling behind their peers, there was no question that as soon as they were reading a text at close to 95% accuracy rate, I would be guiding them to the next level of text. For the younger students, I planned a more watchful approach to see what patterns emerged in their self-paced progress.

At times I was uncertain about how quickly to move students up the gradient. On 3/17/07 I wrote in my journal, “I am a little uncertain about how quickly to move up through levels of text. Obviously following the progress of individual students is very important.” As I began taking running records every week for this project, I found that all of the students were reading with above 95% accuracy. This told me that it was time to increase the challenge. Running records provide information about not only accuracy level, but also about the cues and strategies that the reader is using to make sense of text, as I will discuss in the following sections. If the reader is reading the text at an accuracy level of 95% or higher, the running record will not give very much information about the cues and strategies that the reader is using. Aside from wanting my students to make progress, I also wanted them to read more challenging texts so that I could glean more information about their literacy development from their running records. On 3/17/07 I wrote:

Looking over the children’s running records today, I’m not getting very much interesting information because all of the books had been introduced previously and all ended up at the children’s easy level. Next week I’m going to take some running records on first reads of books to get more information about how my students are using cues and strategies while reading.

Then on 3/25/06 I wrote, “All of the kids did well with an increase in their challenge – and all of the running records were still in the easy range!” Based on that journal entry, I became more

bold about presenting my students with even more challenging books, even skipping across levels when it seemed appropriate.

While I had previously hesitated to guide students towards more challenging text because I felt that it would be “pushing them” in a negative sense, I now realized that it was much more of a help to my students than an unwelcome intervention. The students didn’t have the same awareness of the levels of text that I had. They didn’t know what all of their options were for forward progress and I as the teacher could help them make moves along the gradient of difficulty that would be appropriately challenging but not overwhelming. In a Montessori classroom, the teacher watches the children’s progress and offers more challenging lessons and activities as he/she sees that the individual child is ready. The method of literacy instruction that I was moving towards was more in keeping with the Montessori methodology than letting beginning readers choose all of their own books before they have the skills and self-knowledge to choose functionally for themselves.

The question of how quickly to progress is complex and individual. Learning how to make decisions about moving students from one level of text to another took time. I found that in general, students did not want to read books that seemed too easy. When a book in their bag had become too easy, they wanted to get it out of their bag and replace it with something new and more challenging. In general they seemed to appreciate a smooth progression in the level of challenge that I guided them towards, but as I saw in the graph of reading level (Table 4), there were dramatic spikes in the level of challenge that the children could achieve, accompanied by levels of slower progress or plateaus. In March I wrote in my journal:

I wonder about raising the challenge level – most of the time it is evident from watching what the children are choosing to read, when they are ready to move on. Sometimes they

actually tell me. If I push them ahead too soon, they get frustrated, lose comprehension, and lose some of their valuable sense of independence and successfulness which could make progress take longer than it ordinarily would.

In general I found that the gradual increase of challenge following a gradient of difficulty was an excellent way to encourage progress and based on my experience, I believe that my students made more progress this year than in previous years because I encouraged them towards more challenging text at the right times based on my individualized observations of their reading.

*Making instructional decisions.* A look at Lee's progress in Table 4 will help to illustrate my decision making processes for one child in regard to speed of progress through levels of difficulty. Table 4 shows an example of the way that I kept track of the students' progress over the course of time. Each of the round dots on the chart indicates a running record. The open dots mean that the child read at 90% accuracy or above and the solid dots show that they read below 90% accuracy. When Lee read a level 8 book with 78% accuracy on 10/26/06, I realized that the text that I was inviting him to read was too challenging and that I needed to offer him easier books. Then on 11/1/06, Lee approached me during independent reading time with the book Mud! in his hand. He said, "This book has been in my bag for a long time." By this time in the school year, I had changed the way that I structured independent reading time and had started having reading conferences one on one with students during this time in the afternoons. Lee wanted to read with me and find out if he was ready to take the book Mud! out of his bag. He had quickly learned that we could use a running record to determine if he was ready to move on or not. He read the book (level 6) with 90% accuracy and I showed him the running record afterwards and the areas that had been challenging. At this point, I had to decide if what Lee

needed was more practice with that specific text, or if he would benefit more from staying at level 6 and starting on a new text. I decided that Lee would benefit from a repeated reading of the same text because he was inventing some of the text based on the pictures, and I saw that with a bit more practice, he would also be able to use what he noticed about the words. Since he was already familiar with the context of the story, I knew that the context of the story would support him in using the visual cues in the text more effectively. We agreed that it was almost time to take the book out of his bag, but that he might need to work on it just a few more times. I saw Lee reading Mud! carefully over the next few days, looking at the pictures and then at the words. Then he approached me and told me with a sense of conviction that it was time to take Mud! out of his bag, that it was no longer challenging. Without waiting for any response from me, he calmly removed the book from his bag and placed it back in the white level box for someone else to read. This showed me that Lee could tell the difference between a book that was challenging and a book that was getting too easy. He was ready to make rapid forward progress after that. On 11/27/07, Lee again approached me with the level 7 book that he had been reading, Find a Caterpillar. He wanted to have a running record and find out if it was time for him to move on. He read it with 98% accuracy. Afterwards, Lee wanted to see his running record. I noted on the side of the running record:

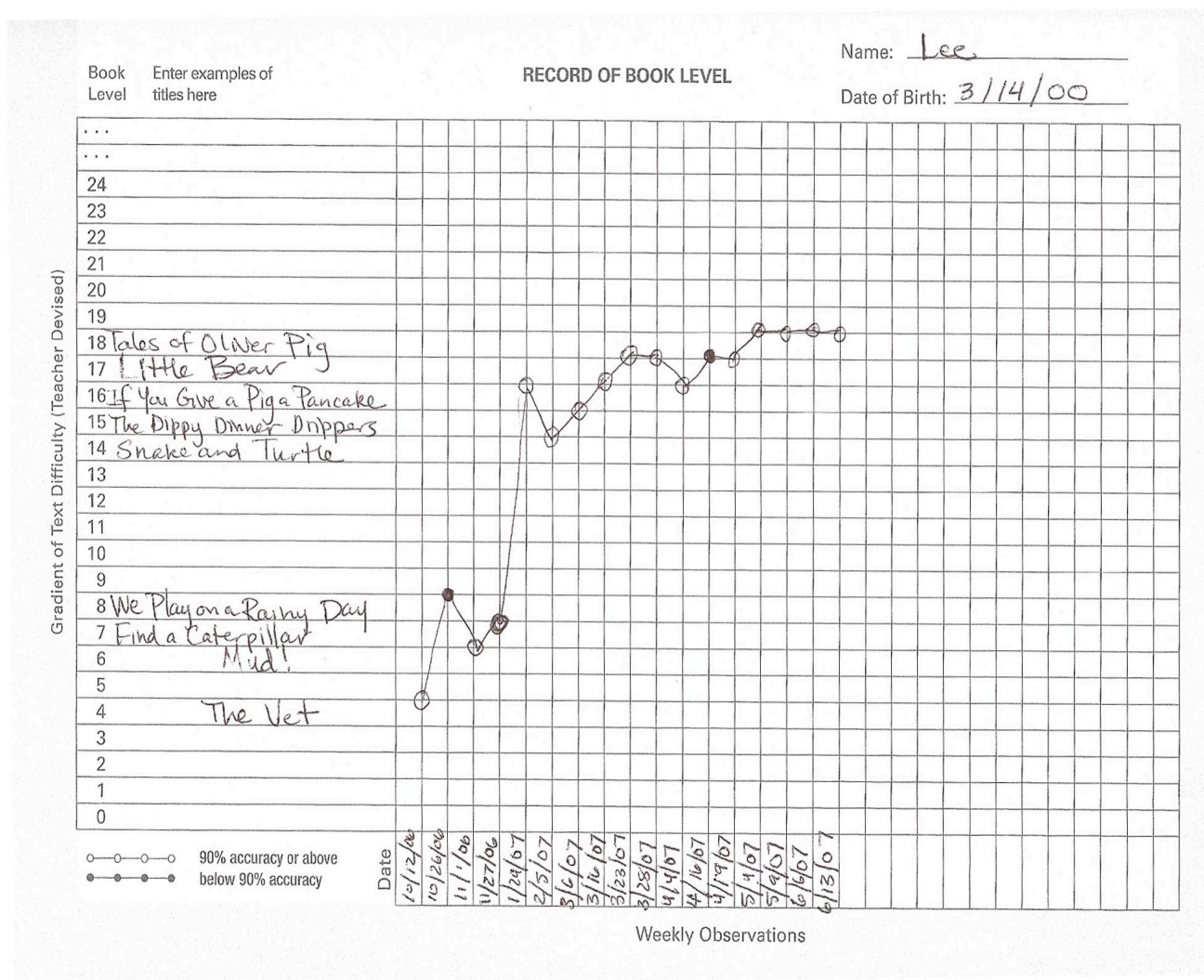
          Showed him running record – he was pleased – asked me to show him the error. He read it perfectly, but stopped to point out that the snail is actually not crawling “up” the branch [as it says in the text] but is “on” the branch as he said.

          Shortly after this, Lee’s ability to integrate the use of cues and strategies really improved and his graph shows a large spike. On 4/16/07, Lee read a level 17 book with 85.5% accuracy. I decided that he didn’t need to move towards easier text this time, but to just get more practice

with the increased text of the Level 17 books. He stayed at the same level for a time and then ended the school year reading level 18 books with confidence. These are examples of the highly individualized observations and interactions that went into my decision making processes regarding how quickly to advance up the gradient of difficulty with a particular child. In Lee's case, he had a lot of personal momentum and desire to improve his ability, he independently practiced the strategies that we discussed at our reading conferences with precision, and by the end of the school year, he had developed his own self-extending system (Clay, 1991) that allowed him to get better at reading by reading.

Table 4

Lee's Record of Book Level



In summary, the above sections detail some of what I learned about my students by using running records. I learned what reading level they were reading at when they year began, and I tracked their reading level throughout the year using running records. This information changed and improved my reading instruction. First and most importantly, it served as an assurance that all of the students were making progress in the correct direction. It helped me know what level of text the individual students should be reading independently. It also showed me when it was time to offer new, more challenging text and when it was time to either stay at the same level or move towards easier levels of text. Based on what I had already learned about my students using running records by December, I had already added 50 new books to the classroom library, extended the amount of independent reading time that the students had by at least 50%, started suggesting “just right” books to my students with increased confidence and efficacy, conferencing with students one on one at least once a week.

In the next section I will discuss the second level of analysis used with running records: looking at what cues students are using as they read. This analysis is based on the three linguistic cueing systems: graphophonemic, syntactic and semantic (Goodman, Watson & Burke, 2005) previously discussed in the literature review section. In the following sections, I will use the terms graphophonemic cues and visual cues interchangeably.

#### *What Cues Are Students Using as They Read?*

As I continued to gather information to answer my research questions, I searched each running record for information about what cueing systems my students were using as they read. After the running record is initially reviewed and the accuracy rate is calculated, more information can be gleaned from examining the places where the reader made mistakes or

miscues. Table 5 shows how the cueing systems are coded on the running record and also how they correlate with Clay's (2005) questions to ask students that prompt self-correction.

Table 5

## Cueing Systems

<b>3 Linguistic Cueing Systems</b> (Goodman, Watson & Burke, 2005)	<b>Code in Running Records</b>	<b>Questions to ask about the miscue</b> (Clay, 2005. p. 69).
graphophonemic	V (visual cue)	"Did visual information from the print influence any part of the error-letter cluster or word?"
syntactic	S (syntax)	"Did the structure (syntax) of the sentence up to the error influence the response?"
semantic	M (meaning)	Did the meaning or message of the text influence the error?

By looking at the miscues that occurred while a student was reading a piece of continuous text and which ones he/she was able to correct in the course of reading, I was able to learn what cues my students could use. I could also see which ones they needed to learn how to use or practice using more effectively with the ultimate goal being the integration of the three cueing systems. I converted the running records that I had done on blank pieces of notebook paper to the form shown in Table 6 along with the addition of the actual text on the left hand column. This helped me compare what the student had read to the actual text even when I did not have a copy of that particular story on hand. The process of converting each running record to a separate form also provided a second opportunity to analyze the use of cueing systems and strategies.

Running records have their own special notation. Each dash mark indicates a word read correctly. When a miscue occurs, the word as it appears in the text is written with a line on top of it and whatever the child says is written above the line. If the child self-corrects, or fixes his/her



mistake, the code written is SC. In the right margin, E stands for a non-corrected miscue and SC stands for a self-corrected miscue. All of the errors and self-corrections are analyzed according to the three linguistic cueing systems to ascertain which ones were used. The MSV that appears in the right margin shows this in shorthand. If the M is circled, the child used the meaning of the text, if the S is circled, the child used the syntactic system as a cue, and if the V is circled, the child used the visual or graphophonemic cues in their attempt to read the word correctly. Any time the letter R appears with an arrow, it indicates that the child repeated a passage of the text and the arrow indicates how far back into the text they went before repeating. The letter T indicates that the teacher told the child a word.

Table 6

Nick's Running Record for Biscuit 4/17/07

Text	Running Record	Count E	Count SC	E MSV	SC MSV
Woof! Biscuit wants to be tucked in.	<del>A time tucked</del> R/T tucked			MSV	
Woof! Biscuit wants one more kiss.	    <del>ou/on/out/sc</del>    one		1		(MSV)
Woof! Biscuit wants one more hug.	 				
Woof! Biscuit wants to curl up.	       <del>cu/very/c-c-u-r/curl</del> curl	1		MSV	
Sleepy puppy. Good night, Biscuit.	Sleep   sleepy   <del>nigtha/T</del> night	1	1	(MSV)	MSV

Table 6 shows an excerpt from one of Nick's running records. This running record illustrates an example of how I learned about a student from the data that I gathered and how I modified my instruction of that child as a result. This running record showed me that Nick was

overly reliant on the graphophonic system and that even when other cues such as the pictures really would have helped him read more easily, he failed to notice and use those other sources of information. Based on that knowledge, I taught Nick about looking carefully at the pictures when he got stuck. I also taught him to go back and start again at the beginning of the sentence to make sure that what he was reading made sense and sounded right. I taught him to use the contextual and syntactical cues.

The first miscue in this excerpt shows an example of Nick's over-reliance on visual cues. It occurred in the sentence, "Biscuit wants to be tucked in." The picture on the opposite page shows a picture of Biscuit the puppy jumping up on the bed and tugging at the covers. We had discussed the picture previously and had talked about "tucking in." This was a meaning cue that Nick missed. He also missed the syntactical cue that the phrase "tucked in" is common in the English language. The cues that he did use were visual and he mistakenly read "time" and then "tuckeed." From this miscue I noted that Nick needed more practice using the picture and other meaning cues for help, and that he needed to learn how to read the suffix "-ed."

The last miscue in this excerpt shows the same issue with over-reliance on visual cues. It occurred with the word "night" in the sentence "Good night Biscuit." Nick missed the meaning cue, which was that the whole story was about putting the puppy to bed and that at the end the owner would say, "Good night." He also missed the syntax cue, that the phrase "Good night" is very common in the English language. He only relied on the visual cues and tried to sound the word out, "n-i-g-th-a." He tried to blend the "h-t" at the end of the word into the blend that he did know which was the "th" blend. He did not know the "-ight" family of words yet. This miscue showed me that Nick still needed more practice integrating the three cueing systems and that he was still overly reliant on the visual cues.

My further teaching of Nick was shaped by the data that I gathered with this running record. I saw that he still needed practice with suffixes, especially “-ed” and “y”. He needed practice with the “ur” and “ight” word families and also a lesson on figuring out words by analogy. An example of figuring out a word by analogy would be that if he knew how to read the word “curb” he could have figured out the word “curl” or with “flight,” he could have figured out the word “night.” I was pleased to see that Nick was beginning to use meaning and syntax cues in his reading, and I was also pleased to see that he could self-correct smoothly, but I saw that he still needed teaching with a strong emphasis on the use of meaning and syntax in reading.

Table 8 shows a running record that is very different from Nick’s. Like Nick, Arthur began the year as a tentative early reader who was overly reliant on visual cues and did not know how to self-correct his miscues or search the text for meaning when he reached an unknown word. On 10/9/06, I recorded:

Arthur needs help using contextual and syntactical cues – he has become conditioned to hammer away at the front of a word – he produces nonsense words and then expects to be told the word. We are working on using pictures and chunking to solve unknown words. Also working on slowing down at difficulty instead of speeding up. At difficulty, Arthur appears to become mentally disorganized.

I worked closely with Arthur for most of the year to help him build independence with the use of cues and strategies for reading. I started by helping him take responsibility for the task of reading by showing him how to self-correct when he noticed that something didn’t look right, sound right or make sense instead of reading on and waiting for an adult to correct him. I gave Arthur books to read that were in his “easy” range to help him develop fluency and a greater sense of

confidence with reading. Arthur started to read more fluently because he became more skilled at using the three cueing systems and because he felt more confident.

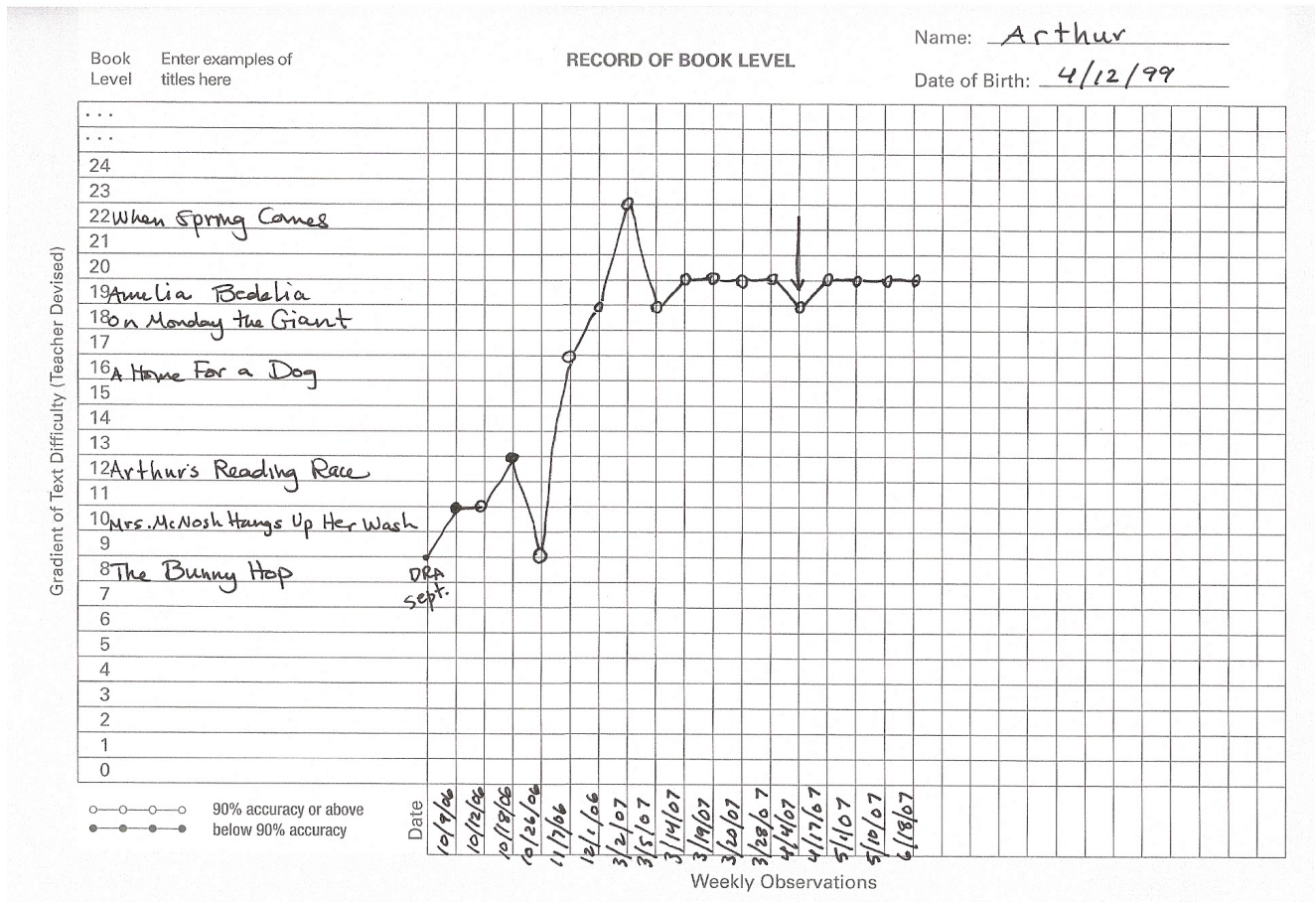
On 11/4/07 I noted in my journal:

Arthur started to really take off. I think that by using a very gradual increase in the difficulty of text, while heavily emphasizing the use of reading strategies, Arthur felt more confident and his progress started to become evident. He was clearly taking control of the reading task rather than hanging on as a side participant. He became increasingly tenacious to the task. In trying to read the sentence “Why wouldn’t it?” he couldn’t make out the word wouldn’t – before asking for help, he tried weret, wine, werd, why not, and worl.

Table 8 shows Arthur’s record of book level. His chart shows a large spike showing where he made a huge amount of progress between 10/26/06 and 3/2/07.

Table 8

Arthur's Record of Book Level



After Arthur made such a large amount of progress, I noticed that he was starting to ignore visual cues, the opposite of the problem that he had at the beginning of the year. This illustrates the fact that the process of becoming a reader is dynamic and that through close monitoring of the cues that my students were using as they read, I was able to modify my teaching as their needs changed. This is an excerpt from one of Arthur's running records in which he seems to be reading so fluently that he forgets to notice the visual cues.



The last miscue in this excerpt shows the same pattern of not paying close attention to visual cues. It occurred with the word, “powder” in the sentence, “And a cup of flour and some baking powder,” said Mother.” Arthur read the word “flour” instead of “powder” and didn’t notice that there had been a miscue. He missed the meaning cue, that they were baking, had already added flour and were now adding baking powder. He missed the visual cues, which would have showed him that “flour” starts with an “f” and “powder” starts with a “p.” The rest of the running record continued with the same issue throughout.

This running record very clearly shows that Arthur is reading for meaning. He had moved into a much more secure place as a reader and was ready for some refinement. He had become markedly more independent and was no longer easily upset by unknown words. Arthur’s needs as a reader changed dramatically over the course of the school year and running records helped me keep in touch with what he needed to learn next.

*Teaching about the cueing systems.* During this project, I developed a greater understanding of the three cueing systems and had many opportunities to observe students who needed to learn how to use them effectively. A significant change took place in the reading instruction that I offered to my students when I began to directly teach them how to use the three cueing systems.

I placed a lot of emphasis on using meaning/contextual cues and reading for understanding because I discovered how important and helpful that was for my students. I made a change in the introduction of texts to my students because I directly observed that it helped them make better use of the meaning cues if they already had an understanding of what the story was about and had seen all of the illustrations and talked about them a bit. I had previously only used introductions of text sporadically and did not fully understand how important the introduction was for establishing a mental schema about what the book was about. Some

students seemed more keen on taking advantage of the introduction than others. Lee used the meaning cues a lot in his reading and this is what I wrote about him in early October:

He greatly benefited from going through the book ahead of time and talking about the pictures. He frequently described much more information from the picture than I could have possibly noticed – and just from the picture walk, he consistently built a strong mental schema which significantly improved his confidence level and ability to figure out unknown words based on meaning. One day in October I was previewing a new book with Lee. I had pointed out a word that I thought might be tricky for him and had him find it on the page based on the initial sound. As we continued the preview, Lee stopped me and said with a smile that seemed to show gratitude, “I know what you’re doing. You are telling me about the story so that I’ll know what it’s about when I try to read it.”

Early on in this project, I was given a visual diagram showing the three cueing systems as overlapping and interrelated circles. I found that this was a perfect descriptive way of thinking about them. At the bottom of the page with the diagram were three questions that I found very helpful in my teaching. The questions are intended to help prompt children to search the text using multiple sources of information and self-correct. When a student missed a visual cue, the question suggested was, “Does that look right?” When a student missed a syntax cue, the question was, “Does that sound right?” and when the student missed a meaning cue, the question was, “Does that make sense?” I began asking those questions of my students early on in the school year and it helped them immensely. It only took a few repetitions before I started hearing children say to themselves, “No, that doesn’t look right,” or “No, that doesn’t make sense.” In the following section, I will be discussing the third level of analysis for running records dealing with the readers’ use of strategies.



*Reading Strategies*

The third level that running records are analyzed for is students' use of reading strategies. This level of analysis was endlessly fascinating, especially when students divulged in moments of metacognition, their own personal mental schemas about the reading task. I frequently asked the students, "How did you figure that out?" and they started to spontaneously tell me about their thinking. The primary strategy that I will discuss in this section is the use of the three cueing systems in an integrated manner. The subsets of that strategy include: searching the text for information, confirming and cross checking between types of cues, and self-correcting when the cues don't coincide in a way that makes sense. In this section I will be discussing the use of these strategies and illustrating their use with examples from my students. I will also explain what I learned about my students from monitoring their use of reading strategies and how this data informed my teaching.

These strategies are important because the use of them signifies that the reader is taking control of the reading process and is using what they already know and can do to expand their literacy development. The effective use of reading strategies leads students towards increased independence as readers. It also helps students to develop a system of reading that allows them to get better at reading by reading. After students have learned to use strategies that allow them to monitor their own reading and check one source of information against another source in a functional problem solving process, they begin to assume responsibility for learning how to read by reading (Smith, 1978).

*Searching the text for information.* I found the earliest beginning readers doing the most intense and overt searching of the text. Sam was the youngest child that I studied. On the first day of school he told me, "I don't want you to teach me how to read." Sam was a little apprehensive

about learning how to read, but his attitude improved greatly after he read a few simple words for the first time and he danced around the classroom singing, “I can read!” He spent the first portion of the year learning letter sounds, working on hearing the sounds in words, learning to write letters and beginning to compose some of his own thoughts on paper. On 10/23/06 I noted:

Sam initiated a reading session with me for the first time. Before starting his newest book, Dot, he said, ‘You might need to help me at a few points.’ He began reading and needed help with the name ‘Dot’. He couldn’t remember the sound that ‘D’ makes. I pointed out that ‘D’ is the first letter of his last name. He said ‘D-D-D-Dot.’ Then he turned to me smiling and said, ‘that just rushed into my head.’ I explain that it means that he remembered those sounds.

Sam was searching the text, primarily the individual letters, and then searching in his memory for the sounds associated with those letters. The same day, Sam read me another book and I took the following notes:

Later he saw the sentence, “Sam and cat.” He read “Sam and the cat.” Then he realized that he had run out of words to point to and that he needed to re-check. He self-corrected his mistake and went on.

In this case he had to search the text again, this time to figure out which of the words that he had said was not actually printed on the page. From these two examples with Sam, I learned that he was beginning to pay greater attention to letters and the sounds that they make, was using pointing and matching to keep track of the text on the page, and that he had started to self-correct. I planned to continue supporting Sam in remembering letter sounds in the context of reading and to give him more practice with predictable text that he could read while pointing and

matching. I had Sam dictate several pattern books that he then illustrated and read with pointing and matching. He began using initial sounds to check on words while reading his dictated books.

At the beginning of the year, Lee was also closely searching the text for information. He already knew the sounds that most of the letters make and had also learned several blends. On 10/12/06 I noted at the bottom of one of Lee's running records, "He is 'tied to the text' at times – reading word to word and letter to letter at times but also is picking up some chunks –it, -at." Lee moved out of that stage very quickly and became more reliant on meaning cues to help problem solve unknown words after I had introduced that strategy to him. He showed an early ability to cross check between the meaning of the story and the visual cues that he knew.

*Confirming and cross checking between types of cues.* When students are first beginning to take control of the reading process and are making use of cues to help themselves, they frequently can only focus on one set of cues at a time. It takes a little while for them to learn how to attend to multiple cues for monitoring the accuracy of their reading. In Sam's case, I directly instructed him about how to use visual cues to cross check what he was reading. The following excerpt from one of Sam's early running records (Table 10) shows that he *did not* cross check or self-correct. He was studying the pictures, thinking about the meaning of the story, using his memory of the text, but not using the visual cues to confirm his thinking. In the first sentence, "Grandma got a hammer," Sam read "Mama" instead of "Grandma." I was surprised by this because the picture showed an older woman with white hair in a bun to contrast with "Mom," the younger woman who appears later in the story. He used meaning cues but got them a little mixed up. This would have been easily self-corrected if he had used visual cues to notice that the word that he was trying to read started with the letter "G" and not "M." He did make use of the syntactical cues and his miscue did not disturb the syntax of the sentence. Sam had a very similar miscue on

the next page when he read “Dad” instead of “Grandpa,” in the sentence “Grandpa got a hat.”

This pattern of miscues continued throughout the text and based on information, I decided that I needed to teach Sam more about checking. When we went over his running record together afterwards, I taught him about checking visual cues because those are the ones that would have helped him monitor or self-correct in his reading of The Gifts.

Table 10

Sam’s Running Record of The Gifts 3/9/07

Text	Running Record	Count E	Count SC	E MSV	SC MSV
Grandma got a hammer.	<u>Mama</u> Grandma / / /	1		(MSV)	
Grandpa got a hat.	Dad Grandpa / / /	1		(MSV)	
Dad got a frying pan.	/ / / (long pause) / /				
Mom got a bat.	/ / / /				
Grandma liked the hammer. Grandpa liked the bat.	Dad / Mom likes Grandma liked p. "hm" // Dad likes Grandpa liked / /	1	1	(MSV) (MSV)	
Dad liked the frying pan.	/ likes his / liked the / /	1	1	(MSV) (MSV)	
Mom liked the bat.	/ likes / liked / /	1		(MSV) (MSV)	

Sam began to learn how to use the meaning of the story and the pictures to cross check with the visual cues. He picked this up fairly quickly. This running record excerpt was taken only several weeks from the previous example and it is amazing to see how well Sam is using the visual cues to cross check.

Table 11

Sam's Running Record of Clouds 3/23/07

Text	Running Record	Count E	Count SC	E MSV	SC MSV
We're watching clouds.	w-e-went sc     were		1		mS(✓)
Here comes a ship!	H-e-r-e sc con kiss sc     Here comes		1		mS(✓)
No, it's a birthday cake.	candles cake	1		(M)S(✓)	(M)S(✓)
Here comes a city!	rit/kit/kit/hm T city	1		MS(✓)	
No, it's a castle.					
Here comes a rhino!					
No, it's an elephant.	a an	1		(M)S(✓)	
Here comes a dinosaur!					
No, it's a dragon.	Here sc       No		1		mS(✓)
Here comes the rain!	40				

The first important thing to notice about this running record in contrast to the previous example, is that Sam had started to notice some miscues and go back to self-correct. This showed me that he was taking more responsibility for monitoring his own reading and that he was using the cueing systems in a more integrated manner, which helped him notice miscues when they occurred.

The first miscue with “We’re” occurred in the first sentence of the story, “We’re watching clouds.” The picture shows two children lying on their backs watching the clouds. Sam started by trying to sound out the word. He pronounced the word, “went” and then used syntax to see that sentences don’t usually start with the word “went.” He used the meaning of the story and the picture, along with the visual cues that he knew to self-correct. I saw another instance of Sam using visual cues to cross check when he got to the sentence, “No, it’s a dragon.” He said, “Here” because he got confused with the pattern of the story, but then he noticed that the word he was reading started with an “N” and self-corrected again based on visual cues. At the top of this running record I noted:

Sam is experimenting by sounding out each letter at times – a strategy that is inconsistently helpful. Nice to see him noticing more things about letters and sounds. He's also trying to cross check cues – text with pictures especially. He's enjoying a feeling of success when he sounds out phonetic words.

This marked a breakthrough for Sam and he began to use cross checking in his reading more frequently.

Illustrations are frequently used for searching and cross checking. One of the only times I saw Ella miscue all year was when she was reading The Bull and the Fire Engine which is about a bull who is upset by the color red. The text that she was reading said, "From then on, Bernardo did not like red. Red apples, red flowers, red bandanas. Red made him mad." Ella read "bananas" instead of bandanas, realized that red bananas didn't make sense, and quickly looked at the picture that showed a bandana and self-corrected. Normally children showed cross checking between cueing systems such as using the meaning generated by the picture to cross check the visual cues. Sometimes children cross checked within the graphophonemic system of cues. They used visual cues to cross check by comparing a written word that they knew, such as a word in a book title, to a word that they were trying to figure out.

Early in the year, Lee was reading me a little book with very simple, easy to sound out text. At the time he was particularly tied to sounding out letters and words. He reached the word "the" and did not know what it said. He flipped to the back of the book where it said, "The End" confirmed that it indeed matched, and plugged the word "the" into the story and continued reading. I had never noticed a child doing that before, but since I asked him how he figured it out, he explained it to me. Since that time, I have noticed other children doing similar things to cross check their information. I noted a time when Nick turned and looked at the title of his

book, Fish Live in Water to figure out the word “saltwater.” After he had asked me if “saltwater” was indeed a compound word, he flipped to the cover to find the word “water” which he had remembered was in the title. He confirmed his notion that the word “water” was at least part of his unknown word.

*Self correction.* As children develop the ability to confirm and cross check, they begin to notice more of their own miscues and with support, go back to search the text and correct their own mistakes. I observed all of the students that I studied self-correcting during oral reading. Some of them had already begun to use this strategy before they entered my class and some of them had to be shown how to do it. In *Becoming Literate: The Construction of Inner Control* (1991), Marie Clay writes:

Self-correction in such activity can be seen as an outcome of a control process in which by monitoring, the child discovers a mismatch of information and engages in problem solving, resulting in an overt self-correction. But there is more than this involved. The self-correction process is also progressive and cumulative because at the mismatch the child initiates a search for missing information and *finds or attends to features previously ignored.* (p. 337).

In this quote, Clay writes that giving students the opportunity to self-correct provides them with new learning opportunities to find and attend to a feature of the text that they missed the first time through. Each self-correction that the student makes is a learning opportunity. The students that I studied showed a great deal of enthusiasm and tenacity for making self-corrections. I frequently encouraged their efforts to self-correct and asked them to share their thinking as they went through the process.

Lee did not self-correct at the beginning of the year. I showed him how to self-monitor and confirm using multiple cues. I prompted him to use all of the cueing systems and to self-correct by asking “Does that look right?” “Does that sound right?” and “Does that makes sense?” He quickly got the hang of it and loved to self-correct. At the end of most running records, Lee’s first question for me was, “Did I fix all of my mistakes?” His willingness to search the text, confirm and cross check and self-correct so energetically helped him to make the progress that his Record of Book Level (Table 4) shows. In late winter, Lee had a large spike in the level of text that he was able to read. He was at the peak of careful self-correcting. When he read me The Dippy Dinner Drippers on 3/6/07, he had an astonishing 15 self-corrections and only 1 error that was not self-corrected (Table 12). At the top of his running record I noted:

Awesome self corrections! Used all three cueing systems well – much more specific and accurate with the use of visual cues. I observed Lee doing the following at difficulty: pausing, re-reading from the beginning of the sentence, looking at the picture, and finishing the sentence and then going back to self-correct. He is getting very good at noticing almost all of his own miscues.

This showed me that Lee was still likely to ignore various features of text but that he was great at self-monitoring, and that each time he went back to self-correct, it helped him notice new features for next time. It appeared to take a lot of energy, but this was Lee’s unique way of developing a self-extending system (Clay, 1991).



Table 12

Lee's Running Record of The Dippy Dinner Drippers 3/6/07

Text	Running Record	Count E	Count SC	E MSV	SC MSV
The Dippy family were messy eaters. They dropped their food and dripped their drink at every meal.	missy   SC   messy dropped   SC   dripped		1		(MSV) (MSV)
In the morning it was cornflakes and marmalade and milk. Slip and drip, slop and drop.	shlop   SC   slop		1		MSV
At midday it was soup and bread and melon. Slip and drip, slop and drop.	Mid-day midday supper soup bread   SC		1		(MSV) (MSV) (MSV)

I analyzed this running record and looked for what cues and strategies Lee was using. I noticed that he relied on the meaning and syntax cues for warnings that all was not right with his reading. If the story stopped making sense or stopped sounding like normal oral language patterning, he went back into the text to search and confirm. When Lee needed to self-correct, he very consistently went back to the visual cues first. The first miscue in this excerpt happened with the word “messy” in the sentence “The Dippy family were messy eaters.” Lee read the word “missy” instead, but realized without reading any further, that “The Dippy family were missy - ” didn’t make sense or sound right. He went back into the text, searching for visual cues and found that the word “messy” has an “e” and not an “i” as he had said. He quickly self-corrected and moved on. He repeated the same procedure with each of the miscues in the excerpt. There was an especially challenging sentence towards the end of the excerpt, “At midday it was soup and bread and melon.” Lee had trouble with the word “midday.” It is not part of his normal speech, but he had heard the word before and he sounded it out by using visual cues and dividing the word into familiar chunks. The next miscue happened with the word “soup.” Lee substituted the

word “supper” which did not disrupt the syntax of the sentence, but he realized that “At midday it was supper - ” did not make sense because supper is eaten towards the end of the day. He went back into the text to search for visual cues and read the word “soup.” By the time Lee had made sense of “midday” and “soup”, he had lost track of the sentence. The fact that he went back to repeat the sentence with the correct words plugged in showed me that Lee was clearly reading to understand the story and that he was heavily reliant on the meaning and syntax of the text to help him make sense of unfamiliar visual cues. This was a very effective system of self-correction and it allowed Lee to become a much more independent and self-extending reader. Based on this running record, I saw that Lee was working really hard to consolidate all of the rapid learning that he had done about using reading strategies. I continued to offer him new books without increasing the level of difficulty for a few weeks to help him get more practice with using reading strategies smoothly and consistently.

As I learned how to use running records to gather data about my students’ reading, I gained expertise in the same sequence that the previous sections of this paper have followed. First I learned how to use running records to calculate the readers’ accuracy rate and reading level. Next I learned how to determine which cues the reader was using. It was only after months of practicing with running records that I began to see what strategies my students were using. This was the most challenging area of analysis, but it also provided the most interesting information about the unique trajectories that my students were following towards the common outcome of becoming independent readers. In the conclusion, I will discuss the data that I gathered in specific reference to my research questions.

*Conclusion*

My first research question was, “What can I learn about my students reading from running records?” As I have noted throughout this paper, I learned a large amount about my students’ reading from running records, which I will summarize here. I will also summarize the changes that I made to my instructional practices in response to my second research question: “How will the information that I get from running records influence my instruction of individual students?”

At the first level of analysis I learned at what level the students were reading. I also learned how accurately they could read any piece of continuous text. The accuracy rates showed me information about the books that my students were reading: specifically if they were hard, instructional, or easy. The accuracy information also showed me when it was time to move students towards more challenging text. I learned that most of my students wanted guidance and suggestions about choosing “just right” books and that they liked to have their own personal “just right” books set aside in a bag so that they could find them easily and read successfully during independent reading time.

As I learned more about accuracy rates and leveled books, I changed my instructional practices and infrastructure in important ways. I began assessing my students’ reading levels and monitoring their progress on benchmarked texts over the course of the school year, using a list of benchmarked texts that I was developing as the year went on. I added many more books to my classroom’s library at levels 1-7. I started to build the notion of a gradient of difficulty within the texts available in my classroom’s library. I became much more bold about helping children find “just right” books, monitoring their progress, and guiding them towards more challenging books as necessary.

At the second level of analysis, running records helped me identify what cues my students could already use and what they still needed to learn. I concretely observed my students using visual, syntactical, and contextual cues in their reading. I saw that sometimes students were overly reliant on certain cues and that they needed to be shown how to use other types of cues. I learned how much prompting they needed to use these cues and how their use of the cueing systems improved over time.

As I gained more information about the cueing systems that my students were using, I continued to make changes to my instructional practices. I greatly extended the amount of independent reading time in my classroom to allow students time to practice reading. I met with students individually during that time to present new books, listen to them read excerpts from books, take running records, and provide mini lessons as necessary. I monitored my students much more closely than I ever had before, and found that this was extremely important because changes in their use of cues and reading strategies occurred quickly. Rapid change and growth meant that I needed to constantly adjust the individualized reading instruction that I was offering to my students.

At the third level of analysis dealing with the use of strategies, I saw how well my students were integrating the use of the three cueing systems. I learned how closely individual students monitored their own reading. I learned how confident they were about going back and searching the text for more information. Running records showed me which students had learned to self-correct and which students still needed to learn this skill.

As I gathered running records and learned how to look for the strategies my students were using, I became much more skilled at looking at the students' overall reading behavior and figuring out what things they were doing that were helping them read, what if anything they were

doing that was detracting from their success, and what strategies I could offer them in the form of a mini-lesson to help them become more successful. I found myself teaching lessons that I had never even thought about before this year. Some examples of these new lessons taken from the vignettes in this paper were: teaching all of the students about cross checking and confirming with multiple cues, teaching Sam about checking visual cues while he is reading, teaching Sam and Lee about self-correcting, and teaching Arthur and Nick about using the meaning of the story to figure out unknown words. I found that the teaching in this area was especially important because the effective use of reading strategies helped my students to build independence and develop their own self-extending systems as readers.

### What's Next / Conclusions

Running records provided me with an extremely valuable window. Through this window I could actively observe much more about the internal reading work that my students were doing than I had previously thought possible. With this new information I made changes to my instructional beliefs and practices that have clearly benefited my students and will continue to benefit all of my future students. I have benefited too because I feel much more competent and well equipped to teach reading than ever before, and I am fascinated by the individuality of the trajectories that each student takes on their path to literacy development. I have a renewed sense of interest in an area that I had mistakenly thought was boring early on in my teaching career.

This project has made a difference for me as a teacher and for my students. I have not had the opportunity to disseminate information about this project beyond my classroom yet, but I definitely plan to share what I have learned. I plan to share information about this project by submitting several articles for publication in professional journals. Some journals that I have in mind are: *Montessori Life*, *The Reading Teacher*, and *Language Arts*. I would also like to share information with parents about how to help their students practice reading at home. During the course of this project, I became aware that this is an area of need. I would like to do this within my school by hosting a parent night on the subject. I would also like to share this information with the larger community by submitting an article to several free local parenting publications that have a wide area of distribution: *Seattle's Child* and *Parent Map*. I would like to present information about using running records as a form of observation and assessment to local Montessori teachers at a one or two day weekend work shop. I would also like to serve as a community volunteer, using what I learned about literacy skill development to tutor beginning readers outside of my school community.

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