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How do Teachers Measure and Drive Instruction of Literacy

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How do Teachers Measure and Drive Instruction of Literacy

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The purpose of this investigation was to monitor the progress of a fourth grade student to gather data to guide literacy instruction, including fluency, comprehension, miscue analysis, and decoding. Data was collected weekly in order to organize lessons for small group instruction, as well as to identify accurate interventions to implement in the student’s progress. Daily data was collected on an individual student’s performance using R-CBM, MAZE, formal running records, and student’s observation. Results show that the participating in this data collection demonstrated statistically inconsistent gains in the areas of literacy.

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How do Teachers Measure and Drive Instruction of Literacy Through Progress Monitoring?

By

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Submitted in partial fulfillment of the requirements for the degree

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Supervised by

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Abstract

The purpose of this investigation was to monitor the progress of a fourth grade student to gather data to guide literacy instruction, including fluency, comprehension, miscue analysis, and decoding. Data was collected weekly in order to organize lessons for small group instruction, as well as to identify accurate interventions to implement in the student’s progress. Daily data was collected on an individual student’s performance using R-CBM, MAZE, formal running records, and student’s observation. Results show that the participating in this data collection demonstrated statistically inconsistent gains in the areas of literacy.
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Introduction

Entering fourth grade was going to be a huge obstacle for Billy, (pseudonym) a classified Learning Disabled student. Since Kindergarten, Billy has had many struggles with all of his academics. There has been documentation of concerns and struggles that Billy was having, however, it seemed as though specific reasons for the struggle had not been pin-pointed. Billy is a friendly, cooperative, and mild mannered student who seemed to have deflected focus on himself through his positive behavior. When I started guided reading groups with my below grade level students, Billy struggled tremendously, with most age appropriate reading strategies, as well as with the simple idea of letter – sound relationship. After observing this struggle and consulting with my co-teacher, we agreed that there was cause for concern for the struggles that Billy was having, and that we needed to take action. Shortly after, we took Billy to IST (Instructional Support Team) to voice this concern to ask the team for some alternative strategies to help Billy gain some success. This is when progress monitoring became an effective tool to identify Billy’s needs and address them through the use of interventions. As his special education teacher, I began using MAZE comprehension probes, fluency R-CBM, AIMS web Math probes, and Leveled Literacy Guided Reading Instruction with formal Running Records. Throughout the past couple of months, I have been able to monitor Billy’s growth and identify areas that needed specific attention. Progress monitoring has helped to keep all teachers informed of Billy’s progress and has provided accurate data to analyze and refer to in determining the appropriate interventions for Billy. Billy’s data, it was determined that demonstrated widely inconsistent progress. His scores from R-CBM, MAZE, and Running Reading Records show variable results with no obvious growth or regression.
With these results in mind, according to individualized education programs, there are many goals and objectives that need to be met, but are often difficult to reach with some students, like Billy. Progress monitoring is a scientifically based practice that is used to assess students’ academic performance and evaluate the effectiveness of instruction beyond the use of district benchmarks and state assessments. Progress monitoring can be implemented with either an individual or with an entire class.

To accurately implement progress monitoring, the teacher identifies the student’s current level of performance and determines expected goals that are anticipated to achieve over time. The student’s performance is measured either weekly or monthly and compared with the expected goals in order to plan appropriate interventions to apply to district benchmarks and state assessments. “Thus, the student’s progression of achievement is monitored, and instructional techniques are adjusted to meet the individual student’s learning needs” (www.studentprogress.org). Progress monitoring typically shows that learning is accelerated, because the student is receiving appropriate instruction to target specific skills. Progress monitoring provides appropriate documentation of student progress for accountability purposes and allows for more efficient communication with families and other professionals.

The traditional approach of teaching reading and writing conceptualizes literacy as if it consists of a specific set of skills that should be taught in isolation. However, research does not support using this approach in a typical everyday classroom. Students who are unable to acquire and utilize the literacy skills, knowledge, and understanding from the traditional approach at the same rate as their peers begin to fall behind. A struggling reader is soon labeled as having inadequate literacy skills. In this case, progress monitoring can be a useful tool.
Literacy Collaborative’s Response to Intervention (RTI) Model is a school improvement model that many schools, including mine, have begun to implement RTI. “It draws on the extensive research on literacy development and effective teaching, and evaluations have found positive effects of the program both on teaching and student learning” (Pinnell, 2009). Using this program provides differentiated learning opportunities for all students through a combination of whole class literacy activities, heterogeneous and homogeneous group work, and individualized activities (Pinnell, 2009). As a component of the RTI model, the guided reading program that I am using with my student, Leveled Literacy Intervention (LLI), which is essentially for K-3 students, is finding to be an effective tool because of Billy’s instructional level.

I have begun using a progress monitoring system recently with one of my students, who is below expected grade level benchmarks and state assessments. Progress monitoring has allowed me to use Curriculum –Based Measures, such as comprehension MAZE exercises, fluency R-CBM, and formal running records to improve the student’s achievement.

**Theoretical Framework**

Literacy is a broad term that encompasses a wide range of implemented practices in which students, teachers, and everyday people engage on a daily basis. Literacy is the space between thoughts and actions, making a student much more than just a reader and writer. “Learning to read is always learning some form of discourse” (Gee, 2001). Early literacy acquisition is a subconscious activity because children are born into a world of both literacy activities and literacy interactions within their environment. Literacy surrounds Americans entirely. It permeates our daily routines: the morning paper and cooking channels, the cereal box, the airline schedule, road signs and billboards, directions, a menu or magazine, shopping list, or
emails (Goodman, 2001). Literacy is like a continuum, as opposed to being a linear practice.

“We are impacted by literacy, not just regarding reading and writing; but it is like an ‘identity tool kit.’ Literacy is the control of secondary uses of language or the uses of language in secondary discourses” (Gee, 1989, p. 542). Discourse -- ways of believing, talking, acting, and often reading and writing; it is a socially accepted association among ways in which using language, of thinking, and of acting that can be used to identify oneself as member of a socially meaningful group or social network (Gee, 1989). Any discourse is most often mastered through acquisition, not learning. Therefore, literacy is mastered through acquisition, not learning, however, it requires exposures to models in natural, meaningful, and functional settings (Gee, 1989). Literacy is proficiency in secondary discourse, learned because it was taught to you. Literacy would therefore be interpreted as beliefs, behavior, talking, writing, and is control of secondary uses of language. Literacy is being able to read and write based on social lines of discourse.

Literacy is gained from numerous sources drawn from social, cultural, historical, and political practices to build a theoretical framework. (Barton and Hamilton, 1998). Literacy education is formed and carried out through a wide array of theoretical paradigms, such as New Literacy Studies (NLS), critical literacy, new technologies and literacy, along with sociocultural-historical theory. NLS assumes that literacy is an essential social practice constructed in everyday interactions across local contexts within the classroom. Critical literacy involves positioning readers to actively analyze text creation and become involved in discovering the power dynamic embedded within and reflected by the texts (Larson and Marsh, 2005).

“Advances in technology have helped to develop a theoretical understanding of how
technologies are transforming the epistemological and ontological foundations of literacy” (Larson and Marsh, 2005). The theoretical framework of literacy challenges the traditional definitions of learning from a sociocultural-historical perspective.

Children acquire language and literacy through a spectrum of experiences. “The traditional model of literacy comes to be associated with the ‘normally developing’ child who, it is assumed, lives in a family which should support the child’s development through the provision of particular resources and literacy practices” (Larson and Marsh, 2005). The norms of literacy and language are consistently acquired by children of middle class families, due to exposure to a wide range of experiences. Conversely, the lack of exposure to adequate literacy-based experiences for lower class families does not provide the same knowledge base. Teachers and educators need to always be taking into account that actual literacy and language knowledge is not always consistent with what is expected to be known. Literacy for the ‘at risk’ families could be improved through intervention programs that would be made available from the data drawn from progress monitoring.

Language and literacy acquisition provides insight on the fact that progress monitoring of literacy data drives instruction of literacy. “Language is the vehicle or avenue through which ideas are constructed during reading and writing” (Kucer, 2005). Language is a rule-governed and symbolic system of communication (Kucer, 2005), as progress monitoring dictates. The pragmatics of language refers to the functions, uses, and intentions that language can serve. Language is so deeply embedded in our everyday activities, and is essentially, what holds the foundation of all literacy activities. If the language of the student does not function at the
appropriate age range of the fellow classmates, literacy development is likely going to be at a lower functioning level, as well.

The communication between student and teacher becomes an important asset for literacy education. Oral language is an imperative element in a students’ literacy growth. Oral language promotes a higher demand on attention and memory, and when these areas are a concern for some students, the success in literacy areas becomes more difficult for them, at times. On the other hand, the written component of the communication piece is also very important in the reasoning for deciding to use progress monitoring to target literacy areas. The development of a student’s written language is driven by more prior knowledge and demand to address specific situations, whereas oral language can lend itself, needed to guide discussion. “Print is not speech written down. Rather, written language builds on and extends spoken language” (Kucer, 2005, p. 66).

“Literacy is primarily something people do; it is an activity, located in the space between thought and text. Literacy does not just reside in people’s heads as a set of skills to be learned, and it does not just reside on paper, captured as texts to be analyzed.” (Barton and Hamilton, 1998, p.3)

Literacy can be examined through a number of different lenses to identify the relationships between the linguistic, cognitive, sociocultural, and developmental dimensions of literacy. Understanding these dimensions and utilizing them can serve as a guide for literacy instruction and influence decisions about specific interventions, in relationship to progress monitoring. The views of literacy are critical, because our society tends to conceive reading and
writing in a rather narrow minded view. All too frequently, newspapers, radio shows, and politicians discuss literacy in terms of what is learned through phonics or through a sight approach. In order to solve this so called literacy crisis, the narrow focus on graphophonemics and morphemics frames the kinds of instructional materials, meditational strategies, and assessment instruments to improve literacy progress among students. Using progress monitoring as a tool to measure these areas will show growth and/or regression with in this crisis. The environments in which students are surrounded and the people and activities they engage with all influence their motivation to be successful. The results of this interaction of motivation are revealed through progress monitoring and what the student is able to do consistently over time. The classroom environment can also play a role in students’ motivation with literacy activities. Classroom cultures help children to construct an understanding about the nature of literacy, the values of literate activities, and how to interact with other individuals in literate activities. Through participation in these interactions, individual students construct a sense of self as readers, writers, and thinkers within the culture of each particular classroom (Johnston, 1992) and sometimes become aware of their literacy struggles. The reflections of key theories in all areas of literacy help to crystallize the basic principles of each of the models and help to identify possible directions for definitive practices that integrate key theoretical concepts.

**Research Question**

The research presented in these articles, along with my current teaching assignment with specific students in my district, encourages me consider how I can best measure and drive instruction of literacy through the use of progress monitoring. The research on data collection provides accurate evidence to tailor academic interventions for individual students, as well as to clearly
identify students’ strengths and weaknesses on a consistent basis. The techniques discussed in the research appear to be an effective measuring tool. I am interested to see if my utilization of progress monitoring tools and strategies will prove to be as effective as the research states. Given the theoretical stance that literacy is essentially, a practice that takes place across all academic areas; it is a necessary to approach the question if progress monitoring is an effective tool to use to gather data. As such, my research asks me to discover, how to help my fourth grade student, and find the most effective interventions to assist him in finding some success driven by measured evidence?

**Literature Review**

After reviewing a large number of literature pieces, the evidence was surprisingly consistent. The literature indicated the following: The No Child Left Behind Act has put schools under watch to achieve standards and improve proficiency of all students. Therefore, teachers have to implement research-based strategies that focus on reading difficulties and how to begin to address them, in order to obtain the growth required by the state’s measurement of adequate yearly progress (AYP). In order to do this, strategies such as progress monitoring, in conjunction with other standard literacy practices, allow teachers to track the academic concerns they may have with a particular student and determine which interventions would be that most useful in encouraging. “Progress monitoring assessments provide frequent data that teachers can use to make decisions about an individual student’s instructional needs” (Compton, Lambert, Olinghouse, 2006, p. 92).
The Benefits and Limitations of Progress Monitoring

Progress-monitoring can be found to be a very broad term that encompasses a variety of measures designed to track a student’s progress and suggest accurate instructional interventions. One of the most widely used instruments includes the curriculum-based measurement (CBM), which is one type of assessment that is scientifically validated. “This approach has been used successfully to enable teachers to be more responsive to individual student progress and to make instructional decisions that increase student achievement” (Fuchs, Deno, & Mirkin, 1984; Fuchs, Fuchs, & Hamlett, 1989).

“Teachers are using progress-monitoring assessments (PMA) to make educational decisions and improve instructional effectiveness. PMA provide frequent data that teachers can use to make decisions about an individual students’ instructional needs” (Olinghouse, 2006, p. 91). Traditionally, special educators have used norm-referenced tests to identify strugglers and special education students with reading and writing difficulties. However, evidence has shown that these tests are unreliable for use in monitoring students over time. The assessments that teachers use for progress monitoring need to be sensitive to small changes in skills over a period of time.

Special educators are beginning to be held accountable for ensuring effective interventions for struggling students. There is a need for the PMA tool to be reliable and valid, in order to continuously monitor student progress and index performance. The emphasis on progress-monitoring models has increased the reauthorization of the Individuals with Disabilities Education Act, which has allowed many districts to use a Response to Intervention process
One of the foundational elements of RTI is an adequate system of screening and progress-monitoring. Typically, screening and reporting is often done three to four times a year. However, with a progress monitoring system, the students who are not reaching benchmarks, or may be at risk for failing high-stakes assessments, can be more closely monitored using appropriate interventions. Progress monitoring allows for frequent targets of academic areas and instructional modifications based on a student’s progress.

The progress-monitoring assessments must meet several requirements in order to be valid. For instance, the material that the teacher collects on the student must be representative of the academic competence expected of the student at the end of the school year. Also, the measures that are used for progress monitoring need to be free of floor or ceiling effects, which are commonly used with norm-referenced assessments. “In addition, the assessment must be authentic and have adequate reliability and validity” (Deno, 1997; L.S. Fuchs & Fuchs, 1999). In order to identify the most accurate plan for students, teachers must determine the most appropriate instructional content of monitoring students’ progress through the ongoing assessments.

Using progress monitoring does seem to present some barriers, due to time and management concerns. It was noted by many teachers in the article, When Teachers Work to Use Progress Monitoring Data to Inform Literacy Instruction, that time hindered their ability to individualize instruction the way they would like to; it becomes a “constraint to fully utilizing the data” (Roehrig et al, 2008, p. 377). Classroom management was also another barrier that teachers noted in this article. Having to maintain whole-class control, while working with small
groups, as well as managing materials with small groups to is a challenge to making interventions successful and utilizing the data appropriately.

Progress monitoring, at times, shows a weakness with the promising policy of the particular data gained in regards to informing instruction. At times, data cannot demonstrate growth in a student. The data can vacillating results, where the student show regression and improvement on a weekly basis, much like my student did in my research.

Overall, progress monitoring is an informative tool for instruction. Guiding instruction, however, is not the only intended use. PM can be used as a tool to advocate for the student. The data can demonstrate the student’s progress or the inconsistencies in a student’s growth, revealing that more support is needed. The data collected can serve as evidence for support services.

**How Progress Monitoring is measured**

Using a Curriculum Based Measurement (CBM) system provides objective ongoing measures in the academic areas of reading, math, written expression, and spelling. The data is reliable, direct, and valid, allowing teachers to make instructional decisions and account for student outcomes. “Curriculum-based measurement is a key element of the school-wide progress-monitoring system… CBM is widely used for screening and progress-monitoring purposes across general and special education” (Deno et al, 2009, p.45). CBM is often characterized as simple, efficient, and an easy to understand. This simple procedure makes measuring growth in these areas a time efficient and practical strategy to use in making instructional decisions. The data collected is used to monitor student growth over time and to
determine how to adjust students’ instructional programs and increase teaching effectiveness (Lynn, Fuchs, 1993).

The CBM tool was initially designed for special education teachers to measure a student’s performance level, monitor progress in basic academic skills, and assist teachers at making instructional decisions. According to Olinghouse et al (2006), research has shown that CBM monitors progress in special education students more accurately than norm-referenced tests and allows teachers to document a particular student’s growth and inform others on specific instructional decisions. Curriculum-based measurement has primarily consisted of focusing on a student’s oral reading fluency (ORF) as a measure of reading competence. Oral reading fluency measures a student’s rate and accuracy when reading a specific passage during an allotted time. This assessment has shown to be a reliable and valid measure of a student’s overall reading competence, including the students reading comprehension. The ORF tool is usually administered weekly. Often the gains that are made with the fluency passages have been shown to coincide with an improvement in reading comprehension.

CBM most often supports the Individualized Education Plan (IEP) teams in making the progress monitoring successful and meaningful. Using this tool gives teachers an alternative to holistic and percentage tests that impose an ‘artificial ceiling’ on struggling students. Having this focus on particular instruction informs teachers of the need to change and improve teaching strategies. The results that are gathered from the CBM guide teachers in choosing an appropriate progress-monitoring assessment based on the skill level of the student and in deciding, what the specific targeted remediation might be, as well as the goals of the intervention.
Successful literacy tools to appropriately progress monitor struggling students:

There are many types of assessments that educators have found to be most effective to gain progress monitoring evidence and drive instruction.

Curriculum-based measurement of reading: The R-CBM is an oral reading assessment tool that gives a valid measure of a student’s general reading achievement. The R-CBM measures comprehension and reading proficiency, using a time-efficient activity. Time management of the R-CBM assessment is easy, because the assessments are brief, and the results are a reliable source of information. The R-CBM is a practical tool because it allows teachers to assess a student’s reading skills independently, in an isolated setting, while targeting specific skills and weaknesses. This tool is administered individually and requires students to read out loud from a leveled passage. “Using this assessment produces data on student growth that is both reliable and valid for making instructional decisions” (Deno, et. al, 2008, p. 45).

Teachers often argue that this form of measurement is more widely used as a general reading achievement test, because it is solely a measure of decoding skills. “Teachers who have word callers in their classrooms argue that R-CBM may overestimate these students’ reading skills and not be sensitive to their reading difficulties, in effect mistaking the word callers for competent readers” (Hamilton, Shinn, 2003, p. 229). This assessment has been constructed to help teachers to reach the validity of standards from a more contemporary perspective proposed by Messick of 1986.” R-CBM was designed to provide teachers with a simple and accurate way of monitoring the progress of their students for purposes of formative evaluation” (Deno, 1985, 1986). Often with this assessment, the students are asked to read aloud from a passage for one
minute while the teacher scores the number of words read correctly. Words that are said incorrectly, mispronounced, substituted, and omitted are all counted as errors. Words that are self-corrected are not score as errors. After the one minute time is up, the teacher examines the number of words read correctly to come up with the final score of that particular passage, however, it does not take into consideration the specific dialects, accents, and linguistic diversity of students. The passage must be read word-for-word, and with the correct language, to receive credit. “Research indicates that it is sensitive to growth and highly correlated with other standardized measures of reading achievement” (Marston, 1989). R-CBM is a measure that can be done both by the general education teacher and the special education teacher; this type of assessment closely resembles miscue analysis and running reading record. However, the R-CBM is a specific passage that is never previewed by the student, therefore making it an unfamiliar read.

Curriculum-based Measurement of MAZE: The MAZE assessment is a tool that measures a student’s comprehension of a particular sentence. This tool requires students to read silently a chosen passage and can be done in a group. “In previous research, MAZE has been found to be technically adequate for monitoring reading growth of second and eighth grade students, and it is moderately correlated with other standardized measures of reading achievement” (Deno, et al, 2008, p. 46). Throughout the passage, there are specific words replaced by three multiple-choice words consisting of the original story word, and the other two words are distracters. Most commonly, the two distracters were the same word length or within one letter of the correct word's length, but were incorrect in the context in that particular sentence of the passage. Depending on the particular MAZE exercise, students have two to three minutes to complete the
MAZE passage as best as they can. The task can either be discontinued after the student has made three consecutive incorrect choices or after the 2-minute limit has expired. The number of words correctly chosen by the student is what is used in analysis. CBM-MAZE demonstrates acceptable concurrent validity with commercial reading tests and other measures of reading comprehension.

*Comprehension Oral Question Answering Test (CQT):* The CQT assessment is another read aloud exercise requiring three minute timing. As the student reads independently, he receives no assistance on decoding words, correcting reading errors, or defining words. If a student has difficulty on a word for more than three seconds, the teacher directs the student to move on. When the student completes the three minute reading, he is given ten comprehension questions from the Comprehension Oral Questioning Test (CQT). These 10 short-answer comprehension questions are presented orally, and students respond orally. Questions usually center on the “who, what, where, when, why, and how.” Often questions are arranged in sequential order or occurrence. If the student makes five consecutive wrong responses, administration is discontinued.

These assessments are consistent with tools that are already part of the literacy specialist’s tool kit (miscue analysis, reading inventories, and cloze exercises). What progress monitoring does is systematize the data collection and analysis.

**How teachers can use data to inform Literacy instruction:**

The formal use of collecting data is not just about monitoring progress. It is also about using what we know about the child to adjust instruction, so that we can continue helping the
child grow. Teachers access and interpret the data to make informal links to reading curriculum. However, there are perceived barriers to the practice of using the data, including a lack of time and classroom management difficulties that teachers are encountering. The use of CBM is designed to help teachers adapt their classroom and individualize instruction to meet the needs of their students (Deno, 1989; Fuchs & Fuchs, 2004; Shinn, 1989), as well as incorporating data-based decision-making into instructional planning. “The goal of providing such a monitoring tool to teachers is to help them identify and adjust instruction (in areas such as phonemic awareness, phonics, and reading fluency) for students who are demonstrating reading difficulties. Specifically, data is used to assist teachers in establishing reading groups, identifying students in need of immediate intensive intervention strategies, and determining the effectiveness of instructional programs and strategies being implemented in the classroom” (Roehrig, Duggar, Moats, 2008, p.356). According to Roehrig, (2004) the most basic and intended uses of progress monitoring data are to: guide whole group instruction, create small groups, monitor student groups, organize guided reading groups, and assist in parent conferencing. However, it was reported by the Progress Monitoring and Reporting Network (PMRN) that this does not provide any explicit links to help teachers identify specific activities or particular levels of instruction.

**Summary and Conclusion**

Being that the pressure has become so tremendous on educators and districts to improve student performance in terms of meeting the academic standards, there is a much greater focus on Response to Intervention using progress monitoring through tools such as CBM. CBM has become widely used as a form of progress monitoring and as a cornerstone for performance indicators for students. It has been found that there are various forms of tools that can be used to
gain evidence of the attainment and level of a student’s skills. The use of each particular tool mainly depends on the ability to administer particular assessments within a specific timeframe, to accurately measure a student’s growth. However, “one interesting question for future research would be to examine whether R-CBM and MAZE identifies the same students as being at risk and in need of more frequent monitoring and instructional modifications” (Deno et al, 2009, 53). In many studies, only a single level measure was used to assess the growth in student performance. However, using a variety of tools can allow for a more notable view.

Progress monitoring can become that of a “well check” for a student on their progress they are making within their reading. The data collected, therefore, can be used as a tool to assess annual progress and present predictive measures of performance on high-stakes tests. According to Deno et al (2009), many schools use the RTI component as an integral component of the way they apply their progress monitoring and the procedures they follow. “A central purpose of monitoring progress is to gauge the amount of reading growth, a critical statistic in judging whether students have shown sufficient response to intervention or whether they require a change in instruction (Jenkins, 2000, p. 159).

Methods

Context

Research for this study occurred in a fourth grade classroom at Spring Lane (pseudonym) Elementary, using the general classroom setting, as well as pull-out sessions in our resource room. Spring Lane Central School District serves a population of approximately 2,500 students in five small neighborhood schools. Summer Lane Primary serves students in grade k-2, Spring Lane Elementary serves students in grade 3-5, and Autumn Wood Elementary School serves
students in grades K-5. There is one middle school and one high school. On average, 16-19% of students are eligible for free and reduced lunch. On average, 1-3% of students are of racial and ethnic origin and 96-97% is white/Caucasian. There are about 10% of the students at Spring Lane Elementary who receive special education services. The present staff consists of 291 teachers, 16 administrators, and 252 support staff. Programs at Spring Lane Central are designed to be challenging, while taking into account the personal needs of each and every student. The district spends in excess of $100,000 a year on curriculum development, with an emphasis on literacy and numeracy. The English Language Arts program, K-8, consists of a balanced literacy approach. Benchmark assessments are used by all teachers to assess students in the areas of reading, accuracy, comprehension, fluency, and vocabulary. In 2009, 90% of Spring Lane Central’s students passed the NYS ELA assessment.

Participants

Billy is a nine years and 8 month old Caucasian-African American male. In fourth grade, Billy attends a general education setting, where he receives instruction in English Language Arts, Social Studies, Science and Math. Billy receives Consultant Teacher five times a week for an hour during Math, and an hour and a half for ELA. He also receives Resource room support thirty minutes a day in the resource room. Billy also attends Speech and Language classes in the therapy room for 30 minutes, three times a week.

Billy shows strength in his positive approach, good work ethic, cooperative attitude, and appropriate behavior. Billy is often eager to participate and puts forth consistent effort; however, he often doesn’t contribute relevantly and has trouble following multi-step procedures. He requires repetition and practice, especially with his basic math facts and with letter-sound
relationships, to accurately form words. Billy often takes pride and confidence in his work, but has a mistaken sense of correctness. His work is often, unfortunately, incorrect. Billy has an extremely low average working memory ability, as shown by WISC-IV assessments done by the school psychologist. This difficulty makes applying information learned a challenge, which is often very frustrating for Billy.

**Researcher Stance**

As a researcher, as well as the Special Education teacher, I worked one on one with Billy to obtain the materials to monitor his progress. I am currently a graduate student at St. John Fisher College. I am working at obtaining a Master’s Degree in Literacy and have a current bachelor’s degree in Social Science with a Quad Inclusive Education certificate in Elementary and Middle school General Education, along with Elementary and Middle School Special Education. While also working towards certification in Literacy, I presently have a position as a Special Education teacher in a co-teach 4th grade classroom where Billy is a student.

**Method**

My action research focused on how teachers increase literacy achievement through progress monitoring. I used various progress monitoring strategies with my student, to assess his literacy achievement: individual progress monitoring of independent work samples, AIMS web comprehension probes (MAZE), fluency assessments using WCPM/R-CBM, item analysis of both class and state assessments, and informal/formal running records. Improving literacy achievement is particularly important for my struggling students this year in an inclusion 4th
grade setting. Progress monitoring will enable me to monitor their progress, whether it is growth or regression, over a period of time, and respond with appropriate interventions.

During this study, I executed a variety of tools to monitor Billy’s progress and determined the benefits of each tool. The study focused on literacy tools to assess fluency, comprehension, running record, word count, and accuracy through one on one instruction. Through implementing these tools, I observed how Billy interacted with the knowledge gained in guided practice. I observed how these tools worked for him and what benefits they provided him in learning and acquiring the knowledge to build upon particular skills for other content areas.

For the fluency tool, Billy was given the R-CBM using new 2nd grade passages that had not been seen before. The timer was set for one minute, and Billy read the passage to the best of his ability with no assistance from the teacher. While reading aloud, the teacher will followed along and marked any errors, insertions, substitutions, and mispronunciation as incorrect. Repeats and self corrections were not counted as an error. After one minute, the teacher marked on the passage where the student read to in a minute, not stopping the student at that particular spot, allowing the student to complete the paragraph or passage. The errors recorded after the minute mark did not count towards the score recorded. This tool allowed for a clear understanding of words read correctly per minute, building an accurate fluency score.

Another tool that was used with Billy was MAZE passages using 2nd grade passages that had not been seen before. The timer was set for three minutes, and Billy read the passage to the best of his ability with no assistance from the teacher. Billy read each sentence of the passage, and when he came to a point in the sentence where there was a choice of three words in parentheses; Billy selected the one that made the most sense in the sentence. The student worked
as fast as he could, without making mistakes, until I told him to stop. When scoring the passage, I counted the number of word attempts that Billy made, as well as the number of words he chose correctly. This tool allowed for a clear understanding of Billy’s sentence comprehension and pacing, producing a MAZE score.

The final tool I implemented with Billy involved taking a formal Fountas and Pinnell Level Literacy Running Record at his instructional level (Level L/M). During daily guided reading Billy worked on various strategies, such as writing specific comprehension questions, word work activities to assist with decoding and identifying unknown words, as well as verbal questioning to check for understanding throughout the story. After the story had been read through once as a formal guided reading lesson, Billy took the book home and read it to himself. The following day, a formal Running Record was taken, identifying fluency and expression, word accuracy, self-correction ratio, and comprehension about, beyond, and within the text. These formal running records were usually administered every other day, depending on availability of time and on Billy’s work load, in an effort to not make the student feel overwhelmed. With the data gathered from the formal running record, instruction was planned around these particular skills, allowing for direct instruction and more guided practice to improve upon them.

Quality and Credibility of Research

In doing this research, it was important to ensure the quality and credibility of the study. Mills (2007) defines creditability as a researcher’s ability to take into account the complexities that occur during a study and deal with any patterns that may arise that are difficult to explain.
To help ensure the creditability during this study, I applied certain strategies. Collaboration with a Literacy coach, the school psychologist, my building principal, as well as my co-teacher, helped me to reflect on the progress of the study. It helped to have more than one person give their feedback, as to the direction that Billy should be working, and it was very beneficial to have additional insights throughout the process.

I also used triangulation with this study. Triangulation is when the researcher compares a variety of data sources and methods with one another, in order to cross-check the data, to identify the progress of the student (Mills, 2007). I collected information through a variety of sources: MAZE passages, R-CBM passages, formal running records, observations and anecdotal records.

Throughout my study, transferability occurred, which contributed to everything I studied is context bound and to not develop statements that can be generalized by a larger group (Mills, 2007). I collected very detailed, descriptive data, and assessment records specific to this study, to allow me to make comparisons between different contexts. Dependability, which refers to the stability of the data, was also important to during the study (Mills, 2007). To ensure dependability in this study, I made sure to use the triangulation process and multiple tools, so that the weakness on one measure could potentially balance the strength of another (Mills).

Last but not least, I ensured confirmability during my research study. According to Mills (2007) confirmability is the neutrality or objectivity of the data that has been collected. The use of the triangulation process helped to guarantee confirmability, because I compared the tools with each other, allowing me to cross-check the data.
Informed Consent and Protecting the Right of the Participants

To complete my research I needed to implement Progress Monitoring. I implemented the data and resources that I was using with my student, as a result from my district’s Instructional Support Team (IST) and Literacy Collaborative. After consulting with my principal, he informed me that I did not need additional parental consent, because the research and data collection was in line with the district’s expectations. However, he recommended that I not use my student’s actual name to protect his rights of him as a participant. This was a qualitative study, where I worked one-on-one with Billy. It is important to note that from the previous IST meeting that I would be doing strict progress monitoring to monitor Billy growths and use to provide instructional interventions. All of the students’ actual names are anonymous, and that identifying marks are removed from the artifacts and/or materials.

Data Collection

As discussed earlier, there were three major tools used in my data collection. I performed active observations in working one and one with Billy. Here I was able to see how he interacted with each tool and how they benefited his learning in guided practice. In addition, during observations or use of assessment tools, I kept brief anecdotal records to refer back to; helping me to remember how the session went, and what specific behaviors were observed. There are many different artifacts to reflect Billy’s growth on the particular tools used to collect data, and I was able to review and analyze them to see how these strategies showed or did not show growth over time. The tools were consistently used on a weekly basis to gain evidence supporting the interventions proposed to use with Billy to find success (collected on Appendix B).
Data Analysis

Data was analyzed by examining the progress monitoring tools including the R-CBM, MAZE, Running Reading Record, etc. The results of each assessment were placed on a chart/graph (see Appendix B) which allowed me to see daily fluctuations in Billy's literacy development. The data was collected over a month (plus) period and continuously analyzed to determine the effects of the different approaches I used with the student in the study. After reviewing the data on a continuous basis, it appeared that Billy’s results were very inconsistent and did not show growth over a period of time. The findings contributed to the recommendation made for Billy of a more intensive, structured environment. Each week we began with a short R-CBM fluency read of a 2nd grade passage. Billy read for a minute or more, to show his fluency, miscue analysis, self-correction rate, etc. Throughout the week, Billy took 1-2 formal running reading records, as well as completed one MAZE exercise at a 2nd grade reading level.

Findings and Discussion

Since January, the use of progress monitoring in the literacy areas has allowed me, as a Special Education teacher, to gather evidence to target specific instruction. Once a week, for the past several weeks, Billy has been pulled daily, for a short amount of time, to complete one of the monitoring tools (R-CBM, MAZE, formal Running Reading Records, etc.) to guide targeted instruction.

Monitoring student progress and areas of strength and weakness

The central purpose of monitoring progress is to gauge the amount of literacy growth, a critical statistic in judging whether a student has shown sufficient response to intervention and whether
he requires a change in instruction. Close analysis of the data shows inconsistencies in Billy’s scores.

Statistically, there were significant differences in the results that took place over the span of research. The fluency tool, the R-CBM, (Appendix H) showed differences on the percentage of growth over the specific period of time. From January 25th to March 8th Billy’s fluency using R-CBM went from 91 words per minute (wpm) with only 2 errors, to 65 words per minute with 5 errors, ranging between the two wcpm in the time in-between. In addition to my specific recording of data, the use of AIMS Web is another way to analyze data (Appendix A). In response to the interventions that have been used, it is difficult to make a definitive summary of growth that Billy has made. His scores show neither growth, nor consistent regression.

According to the MAZE tool, (Appendix G) Billy’s baseline scores showed neither consistent growth nor regression. Billy’s number of words read increased from 16 words read correctly in January to 21 words read correctly in the middle of February, then decreased to 18 words in
March. His number of words read correctly remained consistent, showing a very small amount of growth. It is difficult to come to a definitive conclusion with the MAZE exercise too.

Throughout guided reading lessons, using Leveled Literacy Instruction, I was able to take one or two formal running records a week to guide instruction as well. His scores of running records were inconsistent with his performance across all areas of the curriculum. He tended to do fairly well on the running records, however, did not show that consistency in guided practice, independent practice, or specific fluency and comprehension passages (Appendix E and F).

After completing the weekly tasks, I was able to guide small group instruction to reinforce the areas of concern that showed through the data. With the data gathered from these tools, I was able to identify particular miscues Billy was making and identify the difficulties with basic sentence comprehension, which in turn showed that whole passage comprehension was a struggle. These difficulties continued to occur on a daily basis for Billy. Doing this study with Billy has shown a number of inconsistencies. The daily data, shows that Billy does not consistently demonstrate growth over time, which in turn, makes effective planning difficult. However, the data allows a tool to provide information to advocate for Billy, to gain more formal support services. The evidence from the data that has been collected allows for a teacher, like me, to plan individualized programs and implement specific interventions.

Progress Monitoring, combined with other assessments (such as the WISC-IV), has revealed particular areas of need for Billy. Progress Monitoring reveals that the child is not progressing as expected. Therefore, he is in need of additional support. In reviewing the growth estimates produced by the various monitoring tools, I found that none of them significantly
showed true growth. All of that assisted in presenting the most accurate evidence to a Committee of Special Education at Billy’s Annual Review. Recommending intensifying Billy’s services for next year seems the best suggestion to assist Billy with his educational career.

Limitations

Although there was great care taken in accounting for changes in performance from the beginning of data collection until the present time, other variables could account for change. The collection was done randomly through the whole study; therefore it might be difficult with time management and routine for specific teachers.

Implications and Conclusions

Based on the Literature Review, Theoretical Framework, and my practices, I believe this study did show that progress monitoring with the gathering of data can lend itself into appropriately creating meaningful interventions and provide accurate evidence to put accurate services in place for the student. All of this was looked at in a systematic approach, from the data collection, research, to theories providing rigorous evidence to making recommendations and instruction. Results from this study demonstrate that in order to have effective placements, services, and interventions to be in place, an approach of progress monitoring is used to gather evidence. Many students cannot be advocates for them self, and at times, do not have positive parental support, therefore with thus the collected data becomes the means of a advocate for the student to gain the best services possible. All of the data I gathered, however not showed me growth as I expected to see, however did show me that there was neither growth or regression with my student, it showed the inconsistencies, which provided the feedback and evidence to recommend
a intensive service for the following year. With all of the data that I was able to gather on Billy, I was able to prepare accurate evidence to present to a Committee of Special Education at Billy’s Annual Review to intensify his services for next year.

Similar to theory and research, my study adds support to the hypothesis that in order for teachers to determine accurate interventions or support their recommended services for students, that continuous progress monitoring is very effective.

Children spend much of their day reading and taking in information, why not use what they are doing and make it a way to collect data to understand, support, analyze and reflect on to provide evidence to support services, instruction, and interventions. I came up with my question, because after referrals from IST and Literacy Collaborative, my student was struggling and his formal test scores and benchmarks were not giving enough support to provide intensive interventions and instruction. My question to myself was, “How can I provide evidence to help Billy receive more services and formal supports?” I found that starting a formal progress monitoring system with specific tools to assess specified areas, allowed me to provide more isolated driven instruction. This is my 3rd year teaching, however, this year being a new district for myself as well as a Special Education setting, has driven me to have a much greater awareness of support services and the use of consistent data to drive instruction and be a informative key to providing instruction and placement. I am always looking for new ways to improve my best teaching practices and ways to increase different aspects of literacy. The findings on progress monitoring and the results from my research, has shown me that I am able to analyze and gather evidence to support my student, recommend and receive new services to help provide a more sufficient educational experience.
Over this period of time, not only was I able to see there wasn’t a clear picture of growth or regression by Billy in the areas of literacy, but I was able to more closely analyze and determine what would be best for Billy. My hope is that with Billy in the proper placement, that progress monitoring will continue with the sufficient interventions and the data will begin to show growth.

The findings of this study suggest that in order for the collection of data to be useful and drive instruction and interventions, classroom teachers must find a way to make the exercises manageable and useful in the gathering of evidence.
References


Roehrig, A.D. (2004). *The Relationship Between Retention/Promotion Decision-Making Processes and Student Reading Gains*, (np.)

Appendix A

Growth of R-CBM recorded in AIMS – Web (additional progress monitoring system used by the district).
### Appendix B

<table>
<thead>
<tr>
<th>Week #1: Date</th>
<th>Week #2: Date</th>
<th>Week #3: Date</th>
<th>Week #4: Date</th>
<th>Week #5: Date</th>
<th>Week #6: Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>3rd grade Fluency Checks</strong>&lt;br&gt; <em>1 min. reading</em>&lt;br&gt; Put a line in passage after 1 min. let him continue till paragraph is finished and mark time at the end of the paragraph</td>
<td>WCPM: Errors</td>
<td>WCPM: Errors</td>
<td>WCPM: Errors</td>
<td>WCPM: Errors</td>
<td>WCPM: Errors</td>
</tr>
<tr>
<td><strong>2nd Grade Comprehension Probes</strong>&lt;br&gt; <em>3 min. reading to himself</em>&lt;br&gt; He has to circle the appropriate word that makes sense out of the 1 grade according to any key.</td>
<td>Number of words read:</td>
<td>Number of words read:</td>
<td>Number of words read:</td>
<td>Number of words read:</td>
<td>Number of words read:</td>
</tr>
<tr>
<td></td>
<td>Number of words correct:</td>
<td>Number of words correct:</td>
<td>Number of words correct:</td>
<td>Number of words correct:</td>
<td>Number of words correct:</td>
</tr>
<tr>
<td><strong>3rd grade Math Probes</strong>&lt;br&gt; <em>Needs to be done</em>&lt;br&gt; Independently (no source or assistance). Only can read directions; cannot assist with solving problems</td>
<td>Total # of problems:</td>
<td>Total # of problems:</td>
<td>Total # of problems:</td>
<td>Total # of problems:</td>
<td>Total # of problems:</td>
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<td>Total # of problems correct:</td>
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<td>Total # of problems correct:</td>
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Progress Monitoring Chart used to gather data to determine proper interventions.
Appendix C

Figure 2
Theoretical Model of Using Progress Monitoring Data to Inform Literacy Instruction

Appendix D

Word Samples by Student throughout Guided Reading lessons during research study.
**Write a summary about what happened to Jack and the giant.**

1. First, Jack and his mom were hung in a bag.
2. Then, Jack woke up and his mom said to seal their cow.
3. Next, Jack sold his cow for pigs and beans.
4. After that, the next day a giant beanstalk grew outside the window. Jack climbed up to the giant.
5. Finally, Jack took back his money from the giant.

**Remember to restate.**

Elephant: Elephant is strong and likes to knock down trees and like to pick up stuff.

Tiger: Tiger is full of himself and braggs about being the best jumper and having the scariest animal.

How do they help each other? (Remember to restate.)

They help each other because elephant helps tiger by getting him out of a hole. Tiger helps elephant.
Appendix E

Formal Running Reading Records Level M
Appendix F

Formal Running Reading Records Level L
<table>
<thead>
<tr>
<th>Test Understanding</th>
<th>Paragraph</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

**Recommendations:**
1. Review the materials.
2. Practice the concepts.
3. Seek additional assistance if needed.
Appendix G

MAZE Progress Monitoring Data Collection
Appendix H

Not very long ago, my friend Rob came from far away to
visit me. It never snows where Rob lives, so he had never seen
snow before. He didn't believe me when I told him that white
flakes fall from the sky.

"When you pack to visit us, bring warm clothes," I told him.
Rob packed pants, sweaters, and one sweater.
The first few days at my house, Rob kept asking, "When will
it snow?" He brought his sweater to school every day in case of
a snowstorm.

After school one day, Rob and I walked home. We noticed
the wind was colder. It nipped at our hands. Gray clouds filled
the sky. Soon icy rain stung our faces and made the sidewalk
slippery.

"Look!" said Rob, "There are little white flies all around."

"Those are little snowflakes," I laughed. We opened our
mouths to taste the cold flakes. Rob scooped up some flakes of
snow and threw them at me.

"There really are flakes falling from the sky!" he yelled.
The rest of the day, Rob and I played outside. We rolled in
the snow. We slid down hills. We made a snow fort and a
snowman. Rob piled snow into the pocket of his warm sweater.

"I am going to bring this snow with me when I go back
home," he said.

"Only if you don't mind getting wet when the snow melts," I
said.