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FORMATIVE ASSESSMENT & YOU:

PERFECT TOGETHER

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Abstract

This qualitative research study investigated the observed behaviors and reported experiences of 5th grade students when formative assessments for reading comprehension were implemented in conjunction with both fiction and expository texts. Eight students in 5th grade participated in the study. Reading comprehension skills were observed and assessed throughout the literacy block using multiple formats of formative assessment. Data were gathered using graphic organizers, surveys, teacher observations, benchmark assessments, student artifacts, standardized tests, and questionnaires. Through the use of data coding and analysis, themes emerged. The action research suggested that using multiple formats of formative assessment on a regular basis provided a more accurate picture of student ability with respect to reading comprehension. Formative assessments and the subsequent analysis of those assessments caused modifications to the instructional design of lessons, and encouraged differentiation of lessons to better meet the needs of individual students. Explicit instruction of reading comprehension strategies positively effected student achievement in reading. Results from the pre- and post-surveys indicated that students acquired reading comprehension skills, had a better understanding of the purposes of reading, and were able to reflect on the use of reading comprehension strategies.

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Researcher Stance

When I was three years old, I was already able to read. My mother was relentless with her integration of books into my life at a very young age. I recall reading Dr. Seuss books to her as she flitted about the house completing chores like ironing and cooking. Looking back now, it is rather ironic that my mom was such an integral part of my love of reading, as she and my dad never read for pleasure, only for informational purposes. They read the daily newspaper each night, and that was it. They did not own books or subscribe to any publications. The only books in the house belonged to me.

Each week at the local grocery store, they offered a new, hardcover, classic children's book that could be purchased for a discounted price, if it was bought in conjunction with a shopping order that totaled a specified dollar amount. I never missed a single book. I couldn't wait to find out what story would be awaiting me amidst the aisles of the A&P.

Family members would regularly "ooh" and "ahh" at my reading ability and make quite a scene over my newly acquired skills. The more they "ooh-ed" and "ahh-ed", the more I read. This way I was sure to impress them again during their next visit. When I began my formal education, the "ooh-ing" and "ahh-ing" continued. My teachers were impressed with my reading abilities and I soared through the levels of the SRA kits with flying colors. Teachers would provide me

with literature from several grade levels above mine and I would devour each and every story.

Growing up as an only child, I regularly needed to entertain myself, and since this was prior to any type of technology existing, I found that I could have amazing adventures and meet interesting characters through books. From these stories, I was able to imagine what the characters looked like based upon an author's description. I could create movies in my mind to show the action that was occurring. I could understand how a character must have felt in a given situation. I could relate events from a story to real-life experiences that I encountered. Reading entertained me and satisfied me.

As I got older, I quickly realized that if I wanted to learn how to do something new, I could read about it, and then accomplish the desired result. This formed the basis of my core values as a teacher. All of my beliefs and passions as a teacher are related to lifelong learning and learning how to learn. When I arrived as a teacher in my urban, economically disadvantaged district, I knew that it was critical to impart to my students this passion for learning.

Due to the backgrounds of my students, I feel that the most important thing that I can teach them is how to learn for life, not just for a test or a grade. My students need to know how to solve problems and develop critical thinking skills to be successful in life, not just in education. It is imperative that my students learn to use the resources that are available to them.

When my students leave me at the end of each year, my main measure of success is whether or not the students fell in love with the learning process and all of the potential that the world has to offer. Because reading comprehension is a critical life skill, I feel that I would be doing my students a disservice by not focusing my efforts in this area. Many students come to my classroom with struggles, both academic and personal. It is my responsibility to make sure that I set them up for success in every way possible. In order for all students to be successful, they need to be able to comprehend what they read.

Overall, my district, my school, and my 5th grade inclusion classroom all struggle with reading comprehension skills. As a major initiative, and a constant concern, reading comprehension is at the forefront of everyone's mind. We are in search of strategies, methods, and curriculum that will ultimately lead to improvement of students' reading comprehension skills in both fiction and expository genres.

In addition, there are limited resources in the area of formative assessments for reading comprehension. Years ago, the district issued checkpoint assessments in reading that would help individual teachers to identify individual student needs and modify instruction to support the goal of closing the gap. Unfortunately, these assessments were either used inappropriately or became outdated without proper attention provided to their revisions. Ultimately, the checkpoints were eliminated and forgotten. In informal conversations with

colleagues, many have expressed concern and frustration at the lack of formative assessments in the area of reading comprehension.

Understanding that formative assessments should be created and utilized by individual teachers for use with a specific group of students, many professionals complain about the lack of time to create them and the lack of knowledge regarding the construction of trustworthy, worthwhile assessment tools that will provide the necessary data to drive instruction in the classroom. Most colleagues, including myself, do not seem to have a clear, standards-based formative assessment process in their classrooms.

Because of the reasons provided, I feel we are missing a critical link in the journey to student success in reading comprehension. It is my intention to help develop and implement the use of formative assessments in reading comprehension for 5th grade. I feel that it is imperative that we address this need, or we may never be able to properly monitor student progress and teachers will continue to teach in a “one size fits all” mentality.

I want students to experience the same enjoyment and satisfaction from reading that I experienced as a child. If students have a desire to learn how to do something, I want them to be able to do it through reading. If they are passionate about something, I want them to be able to devour information about it in books, magazines, and online resources. Through the implementation of formative assessments in literacy, I hope to be able to improve reading comprehension skills

for all of my 5th grade students, and provide them with the love of learning that will carry them through a lifetime.

Literature Review

The effects of formative assessments in the classroom are varied and highly dependent upon the quality of the assessments, the subsequent reflection on the data obtained from those assessments, and the resulting action plan. In order to achieve positive outcomes from the use of formative assessments, substantive reflection and knowledgeable planning in terms of modified instruction based upon those assessments are required. Without the ensuing reflection and informed planning, formative assessments are not beneficial to student learning.

So what exactly is formative assessment? Black & William (1998) define assessment as “all those activities undertaken by teachers – and by their students in assessing themselves – that provide information to be used as feedback to modify teaching and learning activities. Such assessment becomes *formative assessment* when the evidence is actually used to adapt the teaching to meet student needs” (p. 140).

Researchers agree, “Formative assessment is recognized to be a powerful tool for improving student learning” (Shepard, 2009, p. 32). Kaftan, Buck, & Haack (2006) state, “To bring the focus back to learning for understanding, formative and informal assessments need to be part of the instructional process” (p. 44). “But for a formative assessment system to be effective, teachers must

continually check students' learning and be willing to modify instruction to meet the student needs identified by the data" (Huebner, 2009, p. 86).

So how does one design and implement formative assessments to inform instructional decisions? What should teachers do with the data that is generated from implementing formative assessments in the classroom? How will instruction be modified as a result of the data, and what does the differentiation process look like for individual students? All of these questions are addressed throughout the remainder of this review, with student achievement and learning as the ultimate focus.

The study was designed to monitor the effects of implementing formative assessments during literacy instruction to promote reading comprehension with both fiction and expository texts. The hypothesis was that implementing formative assessments throughout the literacy block would positively impact student learning and achievement in reading comprehension. Formative assessments, in and of themselves, are not responsible for increasing student achievement. They do, however, provide critical data that must be acted upon.

Formative assessments are one piece of a balanced assessment system. Research shows that a balanced assessment system is the most accurate and beneficial for positive student achievement. "Education leaders now understand that a variety of measures are needed to accommodate a variety of goals. The challenge for schools is designing a balanced assessment system using the

strengths of summative, interim, and formative assessments to address instructional, accountability, and learning needs” (Huebner, 2009, p. 85). So what types of assessments can be utilized and what is the purpose of each of these assessment categories?

Balanced Assessment System

With the advent of No Child Left Behind (NCLB), testing has taken on a more significant role in education than it had in the past. As students, teachers, schools, and districts now have to detail plans, define goals, monitor progress, and provide interventions for struggling learners, the accountability portion of NCLB takes up significant time and resources. “In response to the accountability movement, schools have added new levels of testing that include benchmark, interim, and common assessments. Using data from these assessments, schools now make decisions about individual students, groups of students, instructional programs, resource allocation, and more” (Chappius, Chappius & Stiggins, 2009, p. 15). All of these measures and tests are now part of a complex data gathering system that is referred to as a balanced assessment system. A balanced assessment system is designed to assist educators with making informed decisions based upon multiple sources of data. These data sources could include classroom assessments, common assessments, interim/benchmark assessments, and state/standardized tests. Depending on how each of these tools is used, they may serve a formative or summative purpose in an educator’s classroom.

Classroom assessments. Classroom assessments include both formative and summative assessments that are designed in context, taking into consideration the strengths and weaknesses of particular students in that specific classroom environment at that precise moment in time. They are not “one-size-fits-all” assessments. Classroom assessments are the daily checks for understanding and student achievement, that provide the necessary data to allow teachers to modify instruction as the learning is occurring. Because they are used frequently, classroom assessments are a vital piece of instruction, as they allow teachers to identify strengths and weaknesses in individual students early on in the learning process. As needs are identified, teachers can then modify instruction to address these needs, and ultimately effect student achievement in positive ways. Risko & Walker-Dalhouse (2010) suggest that classroom-based assessments are the key to differentiating instruction and the development of appropriate interventions.

There is overwhelming evidence that formative assessment can positively affect student learning. Black & William (1998) reviewed and selected upwards of twenty quantitative research studies to determine the efficacy of formative assessment in the classroom. “All these studies show that innovations that include strengthening the practice of formative assessment produce significant and often substantial learning gains” (p. 140). Stiggins & DuFour (2009) state, “Formative assessment, done well, represents one of the most powerful instructional tools available to a teacher or a school for promoting student

achievement” (p. 640). Black, Harrison, Lee, Marshall & William (2004) revisited the topic of formative assessment, years after their first research article on the topic, and concluded that there is definitive evidence that improving formative assessment raises standards. “...a conclusion based on a review of evidence published in over 250 articles by researchers from several countries” (p. 9). Research also shows that there is much improvement needed in the area of formative assessment in the classroom. However, information and suggestions on how to make those improvements is not so easily found. This topic is discussed in more detail under the subheading of Assessment Design.

Summative assessments, on the other hand are designed as a final evaluation of what was learned over the course of a unit or a semester. They are utilized at the end of a lesson of study to determine overall student achievement with respect to a given subject area. Although they can be used formatively, summative assessments are not frequent enough to inform daily instructional practices, and are typically too late in the process for differentiation to be effective. “Summative assessments – administered at the end of a unit, semester, or year – cannot provide teachers with timely information on how to teach differently or what content to reteach to move students toward mastery” (Huebner, 2009, p. 85).

Common Assessments. In an effort to gain more insight into student achievement through the use of assessments, Fisher & Frey (2009) suggest using

common formative assessments (pp. 23-24). DuFour, DuFour, Eaker, & Many (2006) define common assessment as “An assessment typically created collaboratively by a team of teachers responsible for the same grade level or course” (p. 214). These assessments are implemented across grade levels or subject areas, and allow for more comprehensive data analysis and collaboration among teachers. Common assessments for grade level use can be valuable and used as conversation springboards among teachers.

Interim/benchmark assessments. “Interim assessments fall between formative and summative assessments in both timing and purpose. Usually administered on a regular, preplanned schedule, they evaluate student progress on common content standards, or *benchmarks*, that students must master to be on track to reach end-of-year learning goals” (Huebner, 2009, p. 85). Throughout the study, benchmarks such as the 4Sight Exams, and Fountas & Pinnell Guided Reading Benchmark Tests were utilized to determine proficiency levels that are indicators of performance on end-of-year learning targets. These benchmarks provided anticipatory data regarding upcoming student performance on PSSA (Pennsylvania System of School Assessment) tests, and served as a component of the accountability plan for the school district.

State/district standardized tests. Although standardized tests are a way for schools, districts, and states to measure progress towards prescribed standards and to be held accountable for those results, it sometimes leads teachers to

abandon best practices in an effort to teach to the test. Researchers indicate that through the use of a balanced assessment system, results on such tests will improve and student achievement will be noted. With a strong balanced assessment system in place, standardized tests become a natural progression, rather than some anomaly that requires a new variation of teaching. “An aligned system of assessments should build toward helping students do well on state tests that measure the progress of students and schools” (Fisher & Frey, 2009, p.25). Hollingworth (2007) further supports this assertion and recommends using formative assessments in the classroom as a means of naturally improving test scores without sacrificing best practices.

With an understanding of the various components of a balanced assessment system, it is now important to review formative assessments in-depth. What are they? When are they used? What is the purpose of formative assessments? How do formative assessments inform instruction? How do such assessments impact student learning and achievement?

Formative Assessments

“Formative assessment, done well, represents one of the most powerful instructional tools available to a teacher or a school for promoting student achievement” (Stiggins & DuFour, 2009, p. 640). Black, Harrison, Lee, Marshall, & William (2004), The Center for Comprehensive School Reform and Improvement (2009), Heritage (2007), Kaftan, Buck, & Haack (2006), Shepard

(2009), and Torrance & Pryor (2001) all express the significant value that formative assessments add to the classroom, and all recognize the positive learning impact that such assessments can have on student achievement.

Formative assessments can be a valuable tool in the classroom if designed and implemented well. The subsequent results need to be analyzed and reflected upon, with an effective action plan developed and utilized to modify instruction and differentiate according to individual student needs. “Extensive research on assessment and learning shows that skilled use of formative assessment has a significant positive effect on student learning” (Black, & William, 1998; Heritage, 2007; Stiggins & DuFour, 2009).

The Center for Comprehensive School Reform and Improvement (2009) also recognizes the importance of and potential impact of formative assessments on student achievement. “Designing effective supports for struggling students relies on frequent formative assessment and is a key to improving educational outcomes” (p. 5).

Variations in the definition of formative assessment exist. However, the key concepts included in those definitions are consistent among researchers: they are focused on student achievement, are implemented in the classroom as instruction is occurring, and are used by the teacher to modify and differentiate instruction.

“Assessment for learning is any assessment for which the first priority in its design and practice is to serve the purpose of promoting students’ learning. An assessment activity can help learning if it provides information that teachers and their students can use as feedback in assessing themselves and one another and in modifying the teaching and learning activities in which they are engaged. Such assessment becomes ‘formative assessment’ when the evidence is actually used to adapt the teaching work to meet learning needs” (Black, *et.al.*, 2004, p. 10).

Assessment design. The quality of any assessment will be a determining factor in the validity of the results it produces. When designing assessments, key factors must be considered, in order to ensure that the assessment is indeed measuring what it is intended to measure. Chappuis, Chappuis & Stiggins (2009) suggest five components that lead to high quality assessment tools: clear purpose, clear learning targets, sound assessment design, effective communication of results, and student involvement in the assessment process (pp. 15-17). When designing assessments, Chappuis, Chappuis, & Stiggins also suggest thoughtful reflection about the type of assessment that would best indicate the intended educational outcome, and a focus on the accuracy of the data that the assessments will produce. They state, “Selecting an assessment method that is incapable of reflecting the intended learning will compromise the accuracy of the results. Bias can also creep into assessments and erode accurate results” (p. 16).

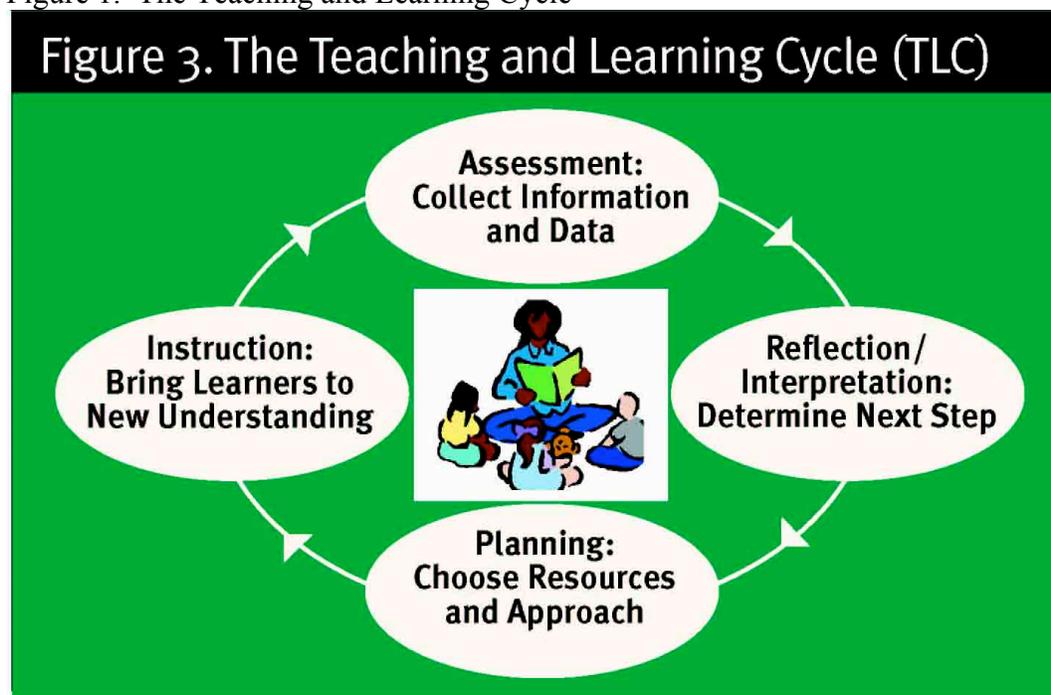
Hollingworth (2007) agrees that the design of the formative assessments used in the classroom, specifically with regard to literacy instruction, is critical. “Another important point to note is that the kinds of questions asked on these assessments should require students to think about what they have read and not just recall the text” (p. 340). Higher-order thinking skills and critical evaluation of text offer a much more authentic experience and deeper connections with the text. Questions that promote these higher functioning thought processes should be the focus of formative assessment design.

Assessment design can also be completed via student/teacher collaborative efforts. Risko & Walker-Dalhouse (2010) suggest this type of collaborative assessment design, along with journal writing, anecdotal notes and teacher modeling. Smith (2009) also suggests allowing students an active role in test creation and scoring as a means of review and motivation. These processes promote self-reflection and peer collaboration among students. Smith does concede that one downside of this approach is the amount of time that it takes to complete. However, she asserts that the benefits outweigh the costs.

Feedback. Feedback, and the quality of that feedback are highlighted in much of the research on formative assessments. Fisher & Frey (2009) indicate that “...feedback is a complex construct with at least three distinct components, which [they] call *feed up*, *feed back*, and *feed forward*” (p. 21). The three constructs include setting a clear goal and purpose, providing specific and

valuable responses to student work, and using the data to drive instruction and differentiate for individual students. This instructional cycle of teaching and learning is quite different from a more traditional cycle of years past. Rather than using assessment for the purpose of assigning grades, assessment is providing teachers with valuable insights into student learning, thinking, and achievement. This information is then reflected upon and an action plan to further student growth is developed. Burger (2004) uses the following diagram (Figure 1) to show the current Teaching and Learning Cycle (TLC):

Figure 1. The Teaching and Learning Cycle



Adapted from The Learning Network, www.rcowen.com/TLNpgs.htm.

Chappuis, Chappuis, & Stiggins (2009) state, “Specific, descriptive feedback linked to the targets of instruction and arising from the assessment items

or rubrics communicates to students in ways that enable them to immediately take action, thereby promoting further learning” (p. 16). “When giving students feedback on both oral and written work, it is the nature, rather than the amount, of commentary that is critical” (Black, *et.al.*, 2004, p. 13). Black, *et. al.* (2004) state, “...to be effective, feedback should cause thinking to take place” (p. 14).

Self-assessment. Much of the research conducted on formative assessments highlights the assessment, the data, and the action plan. One researcher, however, suggests that the emotional aspect of assessment has a compounded effect on student learning and achievement. Stiggins (2009) states that if a student infers from assessments that he/she is successful, he/she is more likely to take risks and attack obstacles as challenges that can ultimately be overcome. If, however, the student infers that he/she is incapable of learning, this becomes a self-fulfilling prophecy. The student will shy away from risks for fear of failure. As a student enters the upper elementary grades, he/she has accumulated enough experiences to have formulated a picture of themselves as a learner.

Stiggins (2009) asserts that through classroom assessments, teachers have the ability to affect a learner’s vision of him/herself. Through teacher/student collaboration, the students become invested in the process and become responsible for their own learning. By teaching students how to assess themselves, the students can tell where they are in terms of the goals set forth.

Teaching students to reflect on their own work can help change the quality of the work (Stiggins).

Throughout the study, students were encouraged to use metacognitive skills and to assess their own progress with respect to reading comprehension. They were asked to discuss strengths and weaknesses, new strategies used to comprehend text, and to monitor their own thinking while reading. This peer reflection provided the basis for discussions between the teacher and student, and allowed the teacher to develop more individualized plans to help move the reader along the learning continuum. Throughout the process, students were evaluating their own use of reading comprehension strategies. Research and descriptions of the specific reading strategies that were being addressed are discussed in the next section.

Reading Comprehension Strategies

Reading comprehension is a difficult skill for teachers and students to assess because of the intricate nature of the task, and the sheer number of strategies that may be employed by students as they attempt to make meaning from texts. Because significant processes are taking place inside the students' minds as they read, teachers must identify specific, key reading comprehension strategies that can be explicitly taught and assessed. Discussions between students and teachers about those strategies and how to employ them with new texts must be included throughout the learning process.

Keene (2010) suggests that much of what is called comprehension instruction is truly comprehension assessment (p. 70). Keene emphasizes the importance of direct, explicit strategy instruction but takes that premise one step further. “Strategies aren’t treated as ends in themselves, but as tools to enhance understanding” (p. 71). The idea of transferring current thinking to new and unique learning encounters is the true focus of strategy instruction.

Keene states that student reflection on responses is critical to support thinking beyond the current text. To encourage greater depth of understanding, Keene provides four principles of reading comprehension instruction: explicit instruction of the strategy, extended think time, probing of student responses, and focus on the outcome of strategy use (pp. 72-73).

Strategy one: making connections. Students must be able to connect texts to their lives in order to construct meaning from the words they are reading. By activating background knowledge, students are instructed to make three types of connections, text-to-self, text-to-text, and text-to-world. Harvey (1998) states, “Connecting prior knowledge and experience to reading deepens comprehension” (p. 73). Making connections is a crucial component of reading comprehension, and can even be taught prior to a student’s ability to decode words. Shagoury (2010) demonstrates this strategy in a preschool classroom during read aloud.

Hollingworth (2007) further supports the importance of student engagement with texts, and the use of formative assessments as a way for students

to demonstrate this connection making process. She states, “Classroom literacy assessments should model this kind of real-world pattern of making connections to text and self via conversations and not just recalling facts from texts” (p. 340).

Strategy two: identifying main idea and details. Good readers are able to distinguish between key concepts and supporting details. By identifying big ideas, students are better able to comprehend texts. “Determining importance has to do with knowing why you’re reading and then making decisions about which information or ideas are most critical to understanding the overall meaning of the piece” (Zimmerman & Hutchins, 2003).

Strategy three: monitoring. The third reading comprehension strategy is monitoring. This is a metacognitive skill that students employ to “think about their thinking”. It has to do with being aware of what is going on in one’s mind while reading. During reading, students must be able to recognize when meaning is breaking down, and be able to analyze why. This is where “fix-up” strategies, such as rereading, are utilized.

Strategy four: questioning. Questioning is a tool that students can use to further engage with the text. By asking questions about the text, students are drawing on the information presented in the text and developing related questions. “Questions are a key ingredient in building superb readers,” according to Zimmerman & Hutchins (2003). Sometimes students will find answers to the

questions by continuing to read the text, while in other instances they may need to conduct more research on the topic after reading.

Strategy five: inferring. Strategy five is inferring. Students learn to “read between the lines” of text to make predictions and come to conclusions that are not explicitly stated. Students marry background knowledge with the text to intensify and deepen comprehension. “An inference is a personal discovery about what the author doesn’t specifically write” (Zimmerman & Hutchins, 2003). Harvey & Goudvis (2007) state, “Students infer when they take what they already know, their background knowledge, and merge it with clues in the text to draw a conclusion, surface a theme, predict an outcome, arrive at a big idea, and so forth. If readers don’t infer, they will not grasp the deeper essence of texts they read” (p. 18).

Strategy six: creating images. Students use the strategy of creating images to enhance comprehension. They create “movies in their minds” that allow them to better understand and remember what is being read. This process of visualizing what is happening in the text brings the words to life. Harvey & Goudvis (2007) state, “Proficient readers create images from all of their senses when they read” (p. 137).

Strategy seven: synthesizing. “Synthesizing is the most complex of the comprehension strategies. Synthesizing lies on a continuum of evolving thinking. Each piece of additional information enhances the reader’s understanding and

allows her to better construct meaning” (Harvey & Goudvis, 2007, p. 144).

Imbedded in synthesizing is the identification of main ideas and summarization.

It involves metacognitive skills, as students reflect on previous knowledge, add new information from the text, infer, and then synthesize all of the various pieces of cognitive thought.

Comprehension Assessment Tools

Reading comprehension is comprised of a complex skill set and cannot be adequately measured with a single assessment tool. Multiple measures provide a more comprehensive picture of student achievement. Decisions based upon multiple measures are more trustworthy and the synthesis of data from multiple tools helps to eliminate logistical inconsistencies. Brookhart (2009) examines three ways to view multiple measures: measures of different constructs, different measures of the same construct, and multiple opportunities to pass the same test (pp. 9-10).

Measuring different constructs ensures that decisions are not being made based upon an isolated assessment. “Meaningful evaluations of outcomes, and especially decisions about what to change to bring about improvement, require that we also consider the context and process factors that work together to determine those outcomes” (Brookhart, p. 9).

Brookhart also suggests different measures of the same construct (pp.9-10). By assessing the same skill on multiple occasions, using multiple assessment

formats, the teacher can gather a more accurate picture of student ability. This includes providing choices to students, which allows them to truly showcase what they know. Risko & Walker-Dalhouse (2010) support the infusion of technology and multimodal assessments, which can provide students with varied products to exhibit their abilities, and provide a more authentic picture of their learning.

In Brookhart's discussion of multiple measures, the researcher also examines multiple opportunities to pass the same test (p. 10). There are several ways that this concept may be utilized. In some instances, students are provided with an unlimited number of attempts to pass the assessment. In others, there might be an averaging of grades from multiple attempts at the same assessment. Students may also select the assessment that they wish to take.

Throughout the research, it is evident that multiple measures in various forms provide a more thorough understanding of student skill attainment and achievement. A balanced approach to assessment that includes various modalities and opportunities to showcase student achievement are beneficial to both teacher and student.

There is not a singular tool that best evaluates students' reading comprehension skills. Because of the complexity of the reading task, there is no single measure that provides a complete and thorough picture of a child's ability with respect to comprehension. Risko & Walker-Dalhouse (2010) propose that assessments for reading comprehension be focused on a range of skills necessary

for successful student learning, rather than one specific skill evaluated in isolation. This promotes deep comprehension, as opposed to surface-level, disconnected strategies.

Shagoury (2010) also encourages teachers to search for evidence of the various comprehension skills when assessing students. These comprehension strategies include text connections, accepting responsibility for making meaning out of the text, compare/contrast across multiple texts, respond to reading, discuss and accept differing opinions and ideas of the texts, enjoying reading, and seeing the text through someone else's eyes (p. 67).

There were several tools identified that are included in the research study, including graphic organizers, cloze activities, open-ended response items and technology-infused assessments (multimodal). Cain & Oakhill (2006) emphasize that "no assessment tool is perfect. However, awareness of strengths and weaknesses of each one will guide our selection of the most appropriate assessment for our needs and also our interpretation of test scores" (p. 699).

Graphic organizers. Graphic organizers are visual representations of thoughts and information that assist students in comprehending text. Through the use of graphic organizers, teachers are able to observe the thought processes of students, and assess comprehension. These tools also provide a springboard for discussion between teacher and student. The use of comprehension strategies can be identified, and the misconceptions cleared up, as a result of using graphic

organizers. Graphic organizers are a way of seeing what a student is thinking as they read.

Kim, Vaughn, Wanzek & Wei (2004) researched the effectiveness of using graphic organizers to improve reading comprehension with learning disabled students. The findings state, “Students using graphic organizers significantly outperformed their peers who did not use graphic organizers regardless of whether they developed their own graphic organizers or used teacher- or researcher-generated ones” (pp. 105-118).

Oral language/questioning. “Research has shown that, after asking a question, many teachers wait less than one second and then, if no answer is forthcoming, ask another question or answer the question themselves” (Black, *et.al.*, 2004, p. 11). In order for questioning to become an effective way of assessing reading comprehension, wait times must be increased according to Black, *et.al.* (2004) and Keene (2010). Black (2004), and his colleagues state that “increasing the wait time can help more students become involved in discussions and increase the length of their replies” (p.12). Keene (2010) writes, “To enable students to go from superficial responses to deeper understanding about texts, we need to *give them time*” (p. 72).

Big ideas sheet. Kaftan, *et.al.* (2006) also demonstrated the use of a “Big Idea” open-ended worksheet that was much more effective at measuring student learning than a worksheet that encouraged fill-in-the-blank vocabulary and copy-

from-the-book answers to questions. Through action research, formative results from typical worksheets were compared to student understanding obtained via student interviews. There were significant differences between the perceived student learning that the teacher inferred from the formative assessment and the true concept understanding that the students demonstrated in interviews.

“Through reflection and collaborative decision making, the teacher continued to develop new worksheets until her perceptions of what she thought the students knew matched the information from the student interviews. Her final product provided enough structure to guide student thinking and enough openness so as not to stifle responses” (Kaftan, Buck & Haack, 2006, p. 46). The Big Ideas Worksheet provides opportunity for students to record their ideas on major concepts that are integral to a particular topic, using a word bank to encourage use of proper content terminology. It provides a starting point for individual conversations and supports differentiation of instruction, as student/teacher conversations evolve.

Reflection

Once teachers have gathered information via formative assessments, they must be able to do something with the data to improve instructional practices to meet the needs of each individual learner. In order to accomplish this, teachers must have an opportunity to reflect upon what happened, what they learned about their students’ achievements, and what they must do next to further promote

student growth. While conducting action research on the implementation of formative assessment in the classroom, Torrance & Pryor (2001) stated, "...a key finding of the overall project is that teachers need the opportunity to monitor and reflect on their own classroom practices – to investigate them in detail before being ready to then think about how best to develop more principled intervention strategies" (p. 621). Black & William (1998) concur and state, "For assessment to be formative the feedback information has to be used – which means that a significant aspect of any approach will be the differential treatments which are incorporated in response to the feedback" (p. 16).

Student reflection is also a key component of any formative assessment. It is important that students are able to metacognitively assess their skill levels with respect to desired outcomes. "Students should be encouraged to keep in mind the aims of their work and to assess their own progress toward meeting these aims as they proceed. Then they will be able to guide their own work and so become independent learners" (Black, Harrison, Lee, Marshall, & William, 2004, p. 15).

Teacher. When using classroom-based formative assessments, reflection is critical to success. Cain & Oakhill (2006), Minott (2009), and Torrance & Pryor (2001), all highlight the importance of reflection in the formative assessment process. Research by Torrance & Pryor (2001) states that "for teachers to be able to develop new approaches to formative assessment and relate them to different theories of learning, they must be able to investigate and reflect

upon their own classroom practices – particularly the way they question and give feedback to students. An action research approach seems particularly suited to high-quality *development* work on the interface between teaching, learning and assessment” (pp. 628-629).

Minott (2009) further supports the importance of reflection in conjunction with formative assessment. Minott summarizes the role of reflection by stating, “Reflection enables the process of modifying or adapting the curriculum or lesson content, process, product and classroom environment to students’ needs, interest and learning styles; Reflection is integral to various tools used to facilitate the DIP; Reflection-in-action (i.e. framing ‘students’ during formative assessments), facilitates the effective delivery of differentiated lessons” (p. 7). Cain & Oakhill (2006) discuss the use of reflection for evaluating the validity of classroom assessment tools. “It is important that we evaluate and question the adequacy of our assessment instruments and procedures, and consider confounds in our measurement of this skill” (Cain & Oakhill, 2006, p. 704).

Student. Part of the formative assessment value comes from the student involvement in his/her learning, through the process of reflection and discussion regarding current understanding, intended outcomes, and necessary steps to attain specific goals. Kaftan, Buck, & Haack (2006) highlight the need for students to recognize that learning is for the purpose of understanding and not for test-taking or grades. Formative assessment embedded in the instructional process can be a

catalyst for such a shift in student perception. The implementation of formative assessments helps promote learning for mastery, as opposed to performance goals, thus enhancing student motivation to learn.

Differentiation

Differentiating instruction to meet the needs of each individual student to promote student learning is the ultimate goal of formative assessment. The data are collected for the purpose of informing instructional decisions on a daily basis.

Data-driven instruction. Although past and present practices have used a single assessment as the basis for decision-making, this is not an effective methodology. Assessments need to be varied (formative, interim and summative) and of high quality to properly inform instructional decisions in a balanced assessment system.

When analyzing data and subsequently making educational decisions for students based upon that data, researchers suggest using multiple measures. Brookhart (2009) states, “There are two important reasons to use multiple measures for decisions about education. The first is that multiple measures enhance *construct validity*. The second reason for using multiple measures is that they enhance *decision validity*” (p. 8). Brookhart describes construct validity as “the degree to which any score conveys meaningful information about the attribute it measures” (p.8). It is imperative that assessments are measuring what they intended to measure. Prior to making any educational decision, Brookhart

emphasizes the importance of using many different data inputs in order to create a more accurate picture. This is decision validity.

Chappuis, Chappuis, & Stiggins (2009) caution educators, however, about blind adherence to multiple data measures. These researchers emphasize that the quality of the data inputs are of the utmost importance. "...the use of multiple measures does not, by itself, translate into high-quality evidence. Using misinformation to triangulate on student needs defeats the purpose of bringing in more results to inform our decisions" (p. 15).

In addition to using various, high-quality data sources, it is imperative that teachers are able to analyze that data properly, and use the findings to modify and differentiate instruction. Heritage, Vendlinksi, & Herman (2009) argue that unless a teacher is able to take the data collected from formative assessments and translate that into classroom action and next steps, the positive effects of formative assessment will not be recognized.

Research indicated that most teachers were able to infer what a student did and did not understand from the student responses that were provided on the formative assessments. More challenges arose, however, when teachers were asked to plan the next instructional steps based upon the inferences that they made. Heritage, Vendlinski, & Herman (2009) suggest that teachers need to obtain a deep understanding of the learning continuum for students, and must have complete and thorough knowledge of the sequence and scope of their

respective content areas. Without knowing where on the continuum a student's progress is, and without being able to identify potential "holes" in student content knowledge, determining the next steps in instruction becomes extremely difficult and haphazard.

Analysis of student work form. One new formative assessment tool that was identified during research was the Analysis of Student Work Form (Moir 2009, pp. 20-21). The teacher completes the form based on a formative assessment. It starts with a description of expectations for student work/performance, and as the teacher evaluates student work, he/she sorts students into categories about how well the objective of the assignment was met. Percentages are assigned to each category and samples of student work are indicated for each of the categories (objective not met, objective partially met, objective met, exceeding objective). Section 4 helps teachers to analyze the learning needs of the students in each category, encouraging reflection and demanding inferences from the teacher. The final section of the form assists teachers in developing action plans and modifications to instruction to meet students' needs. Patterns and trends would be identified and noted. This form will definitely become a part of the research study because it supports reflection and analysis of the data collected via formative assessment. It is an organized, methodical way to interpret data and plan next steps, which is a critical piece of all assessment tools.

Teacher collaboration. When it comes to formative assessment and data analysis, teacher collaboration can be a valuable tool. The Center for Comprehensive School Reform and Improvement (2009) stressed the importance of routine teacher collaboration as a means to interpreting the data collected from formative assessments and then subsequently developing an action plan that correlates to the findings (p.5).

“...the more school staff worked collaboratively to discuss and analyze student performance, the more likely staff members were to use data to inform curriculum decisions” (Lachat & Smith, 2005). Fisher & Frey (2009) further support the positive aspects of collaboration through the use of common assessments across grade levels or subject areas. “...such assessments gauge increments of student performance and provide teachers with data that spur conversation about instructional and curricular design” (pp. 23-24).

Conclusion

Research indicates that implementing formative assessments as part of a balanced assessment system is a beneficial endeavor for both students and teachers. Through the use of formative assessments, teachers are able to check student understanding while the teaching process is ongoing. This allows the teacher to identify problem areas before it is too late, and to develop action plans to meet the demonstrated needs of students. When implementing formative assessments in the classroom, data gathering and analysis are crucial to the

development of differentiated lessons and action plans to help students increase achievement.

Reading comprehension is a complex task made up of seven specific skills. Formative assessments, in various formats, are a way to monitor these skills on a regular basis to address shortcomings while teaching is still going on. Formative assessments provide the necessary data to modify instruction and differentiate lessons based on individual students needs. The entire process is rooted deeply in reflection, as teachers continuously analyze the data, and students continuously monitor their progress toward mastery of the necessary reading comprehension skills.

Methodology

Research Goals

My district, school, and classroom all struggle with reading comprehension skills. As a major initiative and a constant concern, reading comprehension is at the forefront of everyone's mind. We are continuously in search of strategies, methods, and curriculum that will ultimately lead to improvement of students' reading comprehension skills. I believe that formative assessment is a critical component of instruction that allows teachers to make modifications and differentiate for individual students, while instruction is still going on. Therefore, the goal of my research was to document the observed behaviors and reported experiences of 5th grade students when implementing formative assessments to improve reading comprehension in both fiction and expository genres.

Setting / Participants

I teach in an elementary school in Northeastern Pennsylvania, in the third largest urban district in the state. Most students are from low, socioeconomic backgrounds, with 70-80% of the district population qualifying for free or reduced lunch programs. Out of 500 districts in the state of Pennsylvania, my district has the lowest per student expenditure (\$5,881/student). The district's student body is highly diversified, with 64.4% Hispanic, 17.4% African American, 15.7% White, and the remaining population from Asian and/or Native American backgrounds.

As one of sixteen elementary schools in the district, the student population in my K-5 building is approximately 600 students. I am one of four, fifth-grade teachers in the building, with an inclusion class of 31 students. There are 20 males and 11 females in the heterogeneous classroom. It is also important to note that 9 of the students are currently classified as Learning Support and have Individualized Education Plans (IEPs), 3 of the students are English as a Second Language (ESL) students, and 5 students receive Title I services in reading.

The physical layout of my classroom consists of eight tables, with four students at each table. There is a classroom library area, a Guided Reading table, and eleven working computers that students may utilize. At a designated time each day, there is a Learning Support Teacher and a paraprofessional who “push in” for Guided Reading instruction, as required by the aforementioned IEPs. These professionals also have Guided Reading tables in the rear of the classroom. Space is a commodity in my classroom.

For the purposes of my research, I selected eight participants across heterogeneous lines. Utilizing the baseline 4Sight Exam, which was administered in September, 2010, I chose a minimum of two students from each of the reading proficiency categories (Below Basic, Basic, Proficient, and Advanced). Because no one scored in the “Advanced” category at the time of the baseline, I selected the two highest scores in the “Proficient” designation, to ensure the integration of all skill levels into the research study.

Data Sources

With the data collection plan designed, I submitted my proposal to the Human Subjects Internal Review Board (HSIRB) of Moravian College. After review by the HSIRB, my proposal was approved and accepted without revision (Appendix A). I then completed a Request to Conduct Educational Research to the Executive Director of Academic Accountability in my district. I was granted permission to conduct the study without revision (Appendix B). A Principal Consent Form was completed and approved (Appendix C), as were the drafts of Parental Consent Letters. The Parental Consent Letters were sent home to parents and returned with permission for students to participate in the study (Appendix D).

Data were collected through a myriad of sources, including pre- and post-surveys, continuous observations, student artifacts, informal student interviews, and standardized testing. Although all of the data collection took place during class, the reflection and analysis were completed outside of the classroom environment.

Surveys (Pre- and Post-). At the outset of the research, I wanted to gain understanding of my students' skills in reading, as well as their opinions of themselves as readers. Since the class was new and it was the beginning of the year, I truly did not know the students very well, and I felt that reading their comments might provide me with some insight about where to start my quest to

improve reading comprehension. I did not inform them of the purpose of the study or the survey at this time, because I was afraid that it would skew the data. I wanted a realistic picture of the starting point. The survey (Appendix E) was read to students, to insure that decoding was not an issue, considering the composition of my students.

After the students received detailed information about the research and following the implementation of formative assessments in literacy, they were again surveyed to see if there were any marked changes in their responses.

Each time the students were surveyed, I subsequently sat with the information and analyzed it, trying to find trends, nuances, and inconsistencies. Although I was not using my entire class for the purpose of my research, I analyzed all of the responses. What I found was sometimes expected, while other answers shocked and saddened me.

Field Log and Reflective Memos. Throughout the literacy block, I noted observations and collected quotes from students in a double entry journal format. Although I made some reflective remarks at the time of the observation, the majority of the interpretations were conducted later that day. The observation journal and my analysis of those observations were typed as reflective memos.

The field log was reread and I assigned codes (key terms) to each big idea I encountered. The data was then sorted into bins according to these codes.

Patterns emerged throughout this sorting process that allowed me to develop theme statements to summarize the major findings from the study.

Student Artifacts. During the study, students completed numerous graphic organizers, compiled thoughts on chart paper or sticky notes, and created posters, written responses and summaries related to fiction and nonfiction texts that they read. These various artifacts allowed me to assess whether or not students were utilizing the reading comprehension strategies that were being taught. These artifacts were used as formative assessments throughout the study, and allowed me to modify instruction and/or differentiate lessons as the learning was happening. These assessments were the driving force behind many changes that took place in my teaching practices.

Interviews / Questionnaires. Informal interviews were conducted throughout the study and notes from the conversations were included in double entry journals, which were then turned into reflective memos. As data was gathered, these interviews were used to confirm or refute my initial interpretations. As the study progressed, these informal conversations also led me to find support and resources for some of my students, in an effort to help them become successful in their use of reading comprehension strategies.

Because monitoring comprehension was such a critical piece of the study, I created a simplistic four part questionnaire (Appendix F) for students to use with any text. It encouraged metacognition, and allowed me to develop a more

complete picture of what was going on in their minds when they were reading. Because reading comprehension involves such a complex set of skills, it was necessary for me to find a way to unpack and assess that process, and I feel that the questionnaires provided feedback in that area.

Benchmark Assessments. My district utilizes Fountas & Pinnell Benchmark Assessments as a way to determine an appropriate instructional reading level for students. These assessments are then analyzed and the data help to determine Guided Reading groups, as well as strengths/weaknesses of each child with respect to reading fluency and comprehension. Throughout the study, these benchmarks were conducted to determine student achievement in reading. They also served as a measure of student growth and achievement, further supporting the use of formative assessment in literacy.

Standardized Tests. At the beginning of September, 2010, the 4Sight Test was administered to all students. The results in reading (Appendix G) provided me with a baseline measurement for each student, and allowed me to ultimately select my participants for the study. Students of varying reading proficiencies were selected for the study, to determine whether or not the implementation of formative assessments during literacy was effective for all students.

After the study was completed, the 4Sight tests were administered a second time (January, 2011). The results were analyzed and comparative data

were collected to show the improvement or regression of student reading achievement levels.

Trustworthiness Statement

In an effort to ensure the validity and accuracy of the study, the triangulation method of data collection was utilized. Throughout the study, data was obtained through observations, student artifacts, surveys, interviews, benchmark assessments and standardized tests.

Approval has been granted for this study by the Human Subjects Internal Review Board at Moravian College, Bethlehem, PA. Approval of the study has also been granted by the Accountability Office of the employing school district.

Because the subjects were all under the age of 18, parental consent was necessary for participation in the study. All parents received a consent form and participation was completely voluntary. Refusal to participate in the study did not carry consequences of any kind. A principal consent form has been signed and permission to conduct the study was granted.

All of the students' names were kept confidential, as well as the names of teachers, other staff, the school, and the district. Only my name, the names of my sponsoring professors, and Moravian College appeared in this study. All students involved in the study were assigned fictitious names in order to ensure confidentiality of all subjects. No names were included on any work samples or in any reports of my study. All research materials were kept in a secure location

and all data gathered during the study were destroyed at the conclusion of the study.

Acknowledgement of Researcher Biases

Recognizing my own positive reading experiences, I must remember that not all of my students will come to me with the same love of reading. I teach in an inclusion setting and therefore, many of my students have had vastly different home and educational experiences. Many of my students have already developed thoughts about their ability levels, and instead of the “ooh-ing” and “aah-ing” that I was privileged to have heard, they have been told that they are not reading at an appropriate level, that they have “special needs” and that they have to read with a “special” teacher who will make it easier for them. I must be sure to accurately report my findings of student achievement, without regard to the underlying desire and drive that the students feel or exhibit in their behaviors. Although I wish for them to love reading as much as I do, that is not the measuring device that I will use to gauge achievement.

My Story

A Shaky Beginning

It was a few days prior to the start of the new school year, and my fifth-grade, urban, inclusion classroom had a roster of forty-two students! The thought of conducting action research in such a classroom sent shivers down my spine and made me seriously contemplate a career change, effective immediately. My district had decided to downsize the fifth grade team by one teacher, and they subsequently shipped a teacher out of the building. As our transient population is infamous for last-minute moves, my roster continued to climb daily, as did my blood pressure.

With 24 hours until the start of the school year, I was notified that they finally received approval to add a teacher back to our team and I could exhale. My roster remained high with 31 students. However, that was much more manageable than what was previously expected. So with a little less trepidation, I began my quest to find out what happens to 5th graders' reading comprehension skills in fiction and expository genres when formative assessment is integrated into the literacy block.

The initial two weeks of school were spent getting to know my students and setting up classroom routines. During this time, I focused the literacy instruction on how to note new learning and ask questions while reading, one of the seven comprehension strategies in my study. Direct instruction, modeling,

guiding, and ultimately, independent practice of this skill were completed, and I decided it was time to assess how my students were doing with these concepts to determine whether or not my instruction was having any positive effects on reading comprehension. Using a *Time for Kids* article, I asked students to read the cover story and use sticky notes to record new learning and questions from the nonfiction text. They were to note any new facts that they wanted to remember or found interesting, as well as any unanswered questions that they would like to investigate further. In my eyes, the results were a disaster.

When I collected the articles and began reading the student comments and questions, I felt like a total failure. Most students were just copying random sentences verbatim from the text. It was obvious that they did not have any sense of the true meaning of the words, nor had they made any personal connection to the text. The quality of the work was worse than poor. Their questioning techniques were just as bad. The questions were shallow and finding answers to them would not enhance the meaning in any way. A week's worth of instruction down the tubes. Sigh.

So now what? I decided it was time to administer a reading survey to determine how students viewed the reading process, what thought processes they were using during reading, and how they viewed themselves as readers. I was surprised and saddened by some of the responses. The majority of students indicated that the strategy they used when they didn't understand the text was to

“sound it out” or “skip it”. When I read this, it immediately occurred to me that the students viewed the majority of the reading process as decoding words, rather than making meaning and engaging with the text. The results and comments from the initial survey are indicated below:

Pre-survey results.

Question 1: Do you think you are a good reader? Why or why not?

Results: 20 students responded “Yes”

7 students responded “No”

Comments: “I mix up words.”

“Sometimes I don’t know what word it is.”

“I think I’m good at reading because I could read chapter book good.”

“I am not a good reader because I mess up on the word or the book is too hard for me.”

“I am not a good reader because I sometimes mess up the words or I read too fast.”

Question 2: What causes you the greatest difficulty when you try to understand what you read?

Comments: “A very long word.”

“Harder words.”

“Words.”

“Is when I get stuck on a word.”

“The hard words they are all woss geteng in my way I triy to scep them but tus is just to mony.”

“The words.”

“Really big words I never heard before.”

“A hard word come.”

Question 3: What could you do to be better at understanding what you read?

Comments: “Sound it out.”

“Reading more.”

“Nuthing I have trid everything sceping speleng even sweceng book’s but nun of that is wuceng wut bo I bo?”

“Scip the werd read the sentins and com back to it.”

“Learn all the big words I don’t understand.”

“Read more!”

Question 4: What do you do when you come to a word that you do not understand?

Comments: “Sound it out.”

“I also tell the teacher.”

“Skip it and go back.”

“Try to figure it out.”

“I scip but it’s just that thure is to meny I just bon no wut to bo som time I red weth my sester and buther I just bont now.”

“I asck someone what it means.”

“Stop and sound it out.”

“I skip the word and move on.”

Question 5: What types of reading materials are easiest for you to understand?

Comments: “Fichons.”

“Amelia Bedelia.”

“Easy books.”

“Fiction.”

“Nuthing it is all the sum harb.”

“Picture books.”

“Ficshin.”

Question 6: What might stop you when you are reading?

Comments: “A long word.”

“When people talk to me. And when they make noise.”

“Nothing.”

“A big word.”

“A exposian.”

“Words that I don’t know.”

“Thinking about something.”

Question 7a: When you are reading and you have difficulty, what do you do?

Comments: “Quit.”

“Get a new book.”

“I sound it out.”

“Ask my mom for help.”

“I look at the end of the book and see if I can find it.”

“I go back.”

“Stop and think about it.”

“I pick another book.”

Question 7b: Do you ever repeat what you are reading in your own words?

Results: 14 students responded “Yes”

12 students responded “No”

Question 7c: Do you ever reread something that does not make sense?

Results: 24 students responded “Yes”

2 students responded “No”

Question 7d: Do you ever ask yourself questions as you read?

Results: 15 students responded “Yes”

11 students responded “No”

Question 8: What is the best advice you have ever been given about reading?

Comments: “Spell out the word.”

“If you can’t read 5 words in the first page pick a different book.”

“The more you read, the better you get.”

“Nothing.”

“Try your best.”

“To sound the word out.”

“Pick a book that you would like.”

“You just have to try it or sound it out.”

“Chunk the words I don’t understand.”

“Keep focus.”

After analyzing the data, my suspicions were confirmed. Most students viewed the process of reading as pure decoding. It looked to me like they never truly understood that the purpose of reading was to connect with a text and become engaged in the process through connections, questions, etc. So before my research study could move forward, I needed to make sure that the purpose of reading was made clear to the students. As a result of this survey, my instruction was modified. I had to go back to basics.

The next day, rather than providing students with a new reading strategy and text, I decided to sit and have an informal class discussion about the purpose of reading and what reading meant to the students. The students pretty much all agreed that reading was decoding words. I then employed a metaphor that we

have been using all year. I asked them if they had ever used or watched a family member use a recipe to make a cake. They all nodded. I discussed the need for ingredients, things like flour, eggs, sugar, and baking powder. I then asked them if I threw all of the ingredients into a bowl, would it be a cake? After a few minutes, hands started going up and students were adamant that the bowl of ingredients did not a cake make.

“What is wrong with it?” I asked. “You have to stir it up and bake it,” replied a girl. “Otherwise, it will just be a bowl of goop.” I excitedly responded, “Exactly! You have to mix it up.” As I continued my metaphor, I explained that decoding the words and putting the words into your brain was exactly like putting the ingredients into the bowl. Without mixing up the words in your brain and doing something with them, you would never have cake. Without the thinking process, the connecting, the questions, comprehension would never come. I explicitly taught students that day that the purpose of reading was to make meaning out of the words on the page, and that decoding was just one ingredient in the process. I believe it was the first time that many of the students had ever heard such a message. I could see the reactions on their faces and the flickers of light in their eyes. So throughout the study, I encouraged students to make cake.

In reflecting on what had happened in my classroom that day, I realized that the survey I had implemented was a formative assessment. It allowed me to see what my students knew about the reading process, and it caused me to modify

my instruction and differentiate the lesson based on the feedback I received. Although I initially felt that my study had not officially begun at this point, I suddenly realized I was wrong. This was an “Aha!” moment for me. Any information that I obtained that informed me and encouraged me to change instruction and differentiate lessons was indeed formative assessment. In my head, I always felt that formative assessments were much more formal and always related to specific content knowledge. I just never realized that I would need to go so far back in the reading process to begin the improvement of reading comprehension skills. It was difficult for me to understand, but proved to be one of the most valuable pieces of the research process and from this basic foundation, we were going to grow. I could feel it.

Just Start Somewhere

Armed with my newfound knowledge, I began to implement different types of formative assessments into all areas of the literacy block, including shared reading, guided reading, and independent practice. One of the first attempts was conducted during guided reading with small groups of students. The strategy that was being taught was identifying and analyzing main idea and details from text.

The formative assessment method I chose was a simple graphic organizer in the shape of an “E”. The students were to identify the main idea and write it on the “spine” of the “E”. Three details that supported or showed evidence of the

main idea were to be written in the “arms” of the “E”. I modeled the process for the students using an instructional level nonfiction text. Then we completed some of the elements together, so I could check for understanding. The final components were completed independently while I watched.

Initially, identifying main ideas proved to be extremely difficult for students. They were providing very specific, minute details, and understanding how all of those pieces fit together to support an overall theme or big idea was conceptually out of their grasp. Because of my observations, I decided that we should work backwards. The formative assessment was informing and driving my instructional decisions on the spot. I asked the students to start looking for interesting details that they read about in the text. We noted these details first, and then tried to identify what they all had in common or what theme might be emerging. Although the students were making better progress, the main ideas that they were suggesting were still very shallow and therefore, were not enhancing their comprehension of the text. I somehow needed them to dig deeper and to connect the use of a strategy to improved comprehension. But small steps had been taken.

One of the next standards that we addressed was how to use the text features in nonfiction text to help comprehension. During shared reading, I instructed students on the various nonfiction text features and let them discuss with classmates how these text features made nonfiction text differ from fiction

texts. When we were sharing out the results, I asked them why they thought these features were included in nonfiction texts, while they were absent from fictional pieces. “Because there is a lot more information in nonfiction texts and it needs to be broken down into different sections.” Another student offered, “Because you need to know what all of the big words mean.” “Because sometimes you need help to know what the pictures and drawings are about,” said another.

We continued to use these nonfiction text features in our guided reading discussions, and we implemented a perusal of these features as a pre-reading strategy anytime we came upon a nonfiction piece. To ascertain whether or not students understood what these features were and what information they provided, I assessed their knowledge using a simple two column form, labeled with “Feature” and “Purpose”. I provided them with piles of nonfiction texts on various topics and instructed them to use the texts as resources for the assessment. They were to look through the nonfiction titles and locate as many text features as they could. They were to list the feature in the left-hand column and then state the purpose of that feature in the right-hand column. I was giddy when I saw the results. Most students were not only able to identify all of the different text features, but also to provide a valid purpose for each of them. From my learning support students to my fluent readers, most students performed this task well and it provided valuable information to me. There were four students that were not able to complete the activity very well, and later that day, I was able to pull them

as a group and re-teach the features in a small group setting. After practicing and re-instructing, all students were versed in nonfiction terminology which I could now use to help them better understand texts. Again, the formative assessment provided the information I needed to make instructional decisions. I differentiated instruction by pulling a small group that was struggling and ultimately, recognized success for all students. It was working.

And then came the crash and burn.

Too Much Data

As the school year took shape and the intensity of the pacing calendar escalated, my research study was quickly becoming overwhelming and the data collection and analysis were proving to be too much to handle. With the onset of Learning Support instructional groups, ESL students leaving for small group instruction, assemblies, and visits from administrators and teams of educational leaders (due to the fact that my district was on Corrective Action II status), the pressure to generate higher test scores became almost insurmountable and my study was beginning to suffer because of it. We were provided with an impossible schedule and told to stick to it. We were given an extremely aggressive pacing calendar. Visits from Distinguished Educators (DEs) became regular occurrences.

As I attempted to recreate the same success that I had experienced in the initial stages of my research, I found myself falling deeper and deeper into a hole.

As I tried to assess student knowledge using graphic organizers and observations, I was finding it more and more difficult to get the information I needed, and then finding opportunities to make sense of all of the data was becoming impossible. The piles were mounting and the study seemed to be coming apart at the seams. I went to my peers and professor and expressed my concerns, frustrations, and forthcoming failure. They provided the most amazing advice. Keep it simple. Pare down the study to a specific group of students. Eliminate any data that does not directly relate to your question. Go back to basics. And that's exactly what I did.

Whittling It Down

At the end of September, the students took the first in a series of 4Sight Benchmark Assessments that are required by the district. Because these baseline results are timely and broken down into various skill sets, I was able to use this information to select a group of eight students to be the participants in my study. Although all of the students would be exposed to the same instructional strategies, assessments, and differentiation of instruction, for the reporting purposes of my study, it was imperative that I select a smaller group of students.

The 4Sight Reading Test provides reading proficiency levels for students as follows: Below Basic, Basic, Proficient, and Advanced. It was my intent to select two students from each reporting category, to ensure that all skill levels were represented in the study results. I also wanted to see whether or not the

implementation of formative assessments during literacy had a greater effect on one group versus another in terms of comprehension skills. Were certain skill levels likely to be more or less successful than others? As I analyzed the data, however, I realized that there weren't any students from my class who were designated "Advanced." Therefore, I selected two students from Below Basic, two from Basic, and four from Proficient. In the Proficient category, I selected two students at the top of that category (being the closest to Advanced), and two from the bottom of that category. This would provide the heterogeneous mix that I was looking for, while whittling down the amount of data to be analyzed and subsequently improve the quality of my research study.

From this point forward, the study was much more manageable and provided me with a focus that allowed me to be more thorough in my analysis and modification of instructional processes.

Who Changed More?

Good readers create images in their minds as they read, which helps them to make deeper connections with the texts. This was the next strategy focus. During guided reading, I instructed students to draw the chapters of a fiction text as they read. At the completion of a chapter, they were to draw the chapter using details that were gleaned from the reading. This would be a formative assessment, where I would be able to see how much of the reading they comprehended. Although during the group readings and discussions, I had

positive feelings about the students' levels of understanding, it was very apparent when I reviewed the images that they did not comprehend very much at all. What they understood were very basic elements of setting and character. How could I make the transition from surface level plot components to recognition of theme, connections between characters and other story elements? Although frustration levels were elevated, it was very apparent that what I thought I had observed was not truly representative of student skill levels. This realization was critical to the study, no matter how painful. It forced me to go back and regroup.

The next day I tried some different tactics and models, including more opportunity for student conversation with peers prior to attempting image creation. I also decided to try this strategy with both my lowest and highest readers to see if there was a difference. Indeed there was. The higher level readers were much more able to show representations of the story and to symbolize meaning from the text. And that was the moment where I realized I had to explicitly teach symbolism. I went back to the lower level group and asked them to come up with one symbol that best represents the events in the text. They would then explain to me why they chose that symbol and how it relates to the text. The outcome was much more positive.

I believe that I learned more about my teaching that day than the students learned about the book they were reading. I had preconceived notions about what my students were capable of and my expectations of them were based on ideas

about what I thought they should already be able to do. These biases were getting in the way of me actually seeing the students' true ability levels, and were also putting my activities well out of the zone of proximal development for the lower level students. I needed to remember to differentiate instruction and to recognize abilities and limitations of each individual student. Alas, the teacher had become the student.

Progress...Finally!

As I became more acutely aware of my own shortcomings as a teacher, my students performed better and better. Throughout the study, several glaring oversights in my instructional delivery were uncovered and shone like beacons. One change I implemented as a result of the study was to ensure that prior to beginning any lesson, I clearly stated what the goal of the lesson was, I wrote it on the board for my visual learners, and I thoroughly explained how I would assess their ability to perform the desired outcome. This design, though obvious in its effectiveness, and well-known throughout teaching communities, had become enveloped in my instruction and somehow over the years, became a casualty of time constraints in both classroom instruction and metacognitive thought processes. Every teacher I know, including myself, would agree that these ideas are beneficial and part of best practices, however, I was also one of the teachers who would have said that I was indeed doing these as part of my instruction. My research showed otherwise.

Inferences during reading are always difficult for students, and can add such dimension to the reading comprehension levels of students. One particular day prior to a read aloud of *The Pinballs* by Betsy Byars, I explicitly stated that the goal of the lesson was going to be for students to make inferences and support these inferences with evidence from the text. I modeled such an inference using a text that we were all familiar with. The desired outcome was that all students would be able to make two inferences from the text, supporting each inference with a minimum of three details. The formative assessment would be an anchor chart, which students would complete in small collaborative groups. All of this was defined and expressed prior to the actual read aloud portion of the literacy block. The students now had a clearly defined purpose and knew what my expectations would be of them at the conclusion of the reading. What a difference it made!

In heterogeneous table groupings of four students each, the teams were provided with a large sheet of chart paper and some markers. As I read aloud, students followed along in individual copies of the text at their seats. At the conclusion of the reading, they were given approximately twenty minutes to author two inferences along with the supporting details from the text. As I meandered about the classroom, I observed that most students were actively engaged. As their thoughts began to take shape and they noted their inferences on the anchor charts, something quite shocking happened. Every group came up

with the same inference for one of their entries. And it was a good one. And they provided evidence from the text to support their thinking. I felt like I should go home that day because that was the best outcome I could have ever hoped for, and everything from that point forward would just be going downhill.

The next reading comprehension strategy that was explicitly taught and modeled was making connections. These connections included text-to-self, text-to-text, and text-to-world. During guided reading groups, students were asked to note any connections to the text on sticky notes and place them in the book where they made the connection. These would then be used as springboards for discussion. The notes and subsequent conversations were used as formative assessments, to determine if students were adept at making personal connections while reading.

Using a fiction text, *James and the Giant Peach*, students were instructed to read chunks of text and note the connections they had made while reading. After reading a chapter, the group shared their connections. In the story, James encountered a problem and one of my readers, Marcus said, “I have a text-to-self connection. I was once walking with a carton of eggs and then I fell. I got into trouble.” I asked him, “So what do you think was going through James’ head?” His response, “He was afraid and worried that he was going to get into trouble.” This was a good connection because he thought not just about the actions in the

story, but rather the character's feelings. He also had to make an inference about those feelings.

Yariela, on the other hand, referred to page 12 in the text and read a passage. The exchange that took place after that went as follows:

Yariela: I have a text-to-self connection. When I was walking just like James, something happened. Diamonds fell off my necklace.

Me: How does that remind you of James?

Yariela: Little green things fell out of his bag. Making connections helps me feel better because I am understanding it.

Well, there was significant improvement since the beginning of the year with referring to specific text when discussing with the group. Yariela had knowledge of the making connections strategy, however, the connection was extremely weak and she couldn't really elaborate on what from the text connected to that experience. I was deflated. Back to the drawing board I went.

In a different guided reading group on that same day, I again had asked students to note any connections while reading the fiction text, *The 13th Floor*. I asked a member of the group, James, to summarize his reading from the previous assignment because I wanted to conduct an informal assessment of his summarization skills. James stated, "Summoned by ghosts to go back and save Abigail from being hanged as a witch. She is a great ancestor (300 years ago) and they want Liz to save her." James' retelling was out of order sequentially and

missing important pieces of information. He did not provide the necessary background or event details to allow the summary to make sense. The conversation continued when James referred to the text to read the message from Abigail. “It is a voicemail,” declared James. It was good to see James refer back to the text. We had been working on citing evidence from the text, and he executed that piece well.

After the summary, I asked James if he made any connections to the text. He responded, “I have a text-to-self connection. The character of Liz does not believe in the supernatural, and neither do I. I don’t believe in ghosts.” James’ connection was good because he referred to a specific reason for the connection. However, I wanted him to explain how that helped him to comprehend the text. I needed to teach the purpose of connections, and why they are important to reading comprehension.

At one point in the text, I asked James to stop and make an inference based on what we read. He inferred that only Stebbins (a character in the text) left. He also made inferences about the ages of the characters. He inferred that Liz was in her 20s, and Buddy was 10 years old. These inferences were valid and he pulled specific details from the text to support his thinking. “I have a text-to-world connection. This part reminds me of those law commercials,” stated James. This connection was unprompted, however, it would have been nice to hear more

of an elaboration that included the reason(s) why it reminded him of those commercials.

There was so much information for me to think about, digest, and use to help students increase their reading comprehension proficiencies. First, I had to make sure that students understood the reasons for the strategies that were being instructed. The purpose of the strategies and the use of these strategies had to be explicitly discussed. Secondly, the goal of each and every lesson had to be clearly stated at the beginning of instruction, written on the board, and the assessment method discussed, prior to conducting the lesson. Thirdly, what I was interpreting as positive observations, didn't always translate into authentic student learning. Therefore, I had to make sure that the formative assessment choices I was making were truly going to show me the students' levels of understanding. Although I felt that the choices of formative assessment could have been even more varied than what I employed, they were still providing valuable feedback, and that is what formative assessment is all about.

At this point in the study, many reading strategies had been explicitly taught, but the students were having difficulty understanding that good readers use these strategies simultaneously, with comprehension being the desired outcome. I wanted students to be engaged with the texts they were reading, and to recognize what was going on in their heads as they read. So a simple formative assessment tool was employed to evaluate students' use of synergistic strategies

and to encourage students to think about their thinking while reading. Designed to encourage students to monitor their own comprehension while reading, the sheet read as follows:

1. What questions do you have?
2. Describe any connections you made during the reading.
3. List any inferences that you made during the reading. Please support each inference with specific details from the text.
4. Detail any new learning from the text.

The results were dismal. The questions they were generating were, at times, ridiculous hypothetical situations, and they were not of value when it came to helping them to better understand a text. We used the sheets as a springboard for group discussions, and they ended up as disconnected pieces of information that did not weave together to create a tapestry, as I had planned. However, as ineffective as I thought they were at that moment, when I poured over them later, I realized that some of the most asked questions had to do with unknown words. Again, students were being sidetracked and frustrated by vocabulary that they did not know and it was causing sacrifices in comprehension. So the formative assessment was worthwhile. From that information, I was able to develop strategy lessons about inferring word meaning, using context clues and text features to determine meaning, and provided more modeling of such strategies.

By teaching the synergistic relationships among reading strategies, I was slowly starting to see the results during my observations and informal conversations with students. During guided reading, Samantha was reading *The War with Grandpa*. My intent was to get her thinking metacognitively, and to hear evidence of strategy integration. I asked Samantha to read a section of the text silently to herself and then talk to me about what she was thinking about when she read. After reading she looked up and said, “First, I have a connection. I wrote a letter to my sister and she didn’t respond.” Samantha reread the text to remind herself of what she read. Although Samantha exhibited the ability to make connections with the text, she did not make the connection clear. I also felt that the connection did not enhance her ability to understand the text, and therefore, it was rather shallow and ineffective.

I asked her to share out her thoughts during the reading. She replied, “I think Billy was cheating at the game.” This was a good inference. “I like this paragraph here. He used sarcasm and I like that.” Samantha was stating her opinion and defending it. This demonstrated higher order thinking and I absolutely loved her use of vocabulary. Samantha stated that one character was being rude to the other. She reread the paragraph aloud to provide evidence of her thinking. Yes, yes, yes! She was learning how to defend her position through the use and support of the text, a very valuable skill.

That same day I met with another student who was reading *Spinach with Chocolate Sauce*, to see if I could replicate the process. As soon as Reenie sat down at the table, she blurted out, “That part was *very* interesting!” It was so nice to hear Reenie’s enthusiasm about the text. Reenie was formerly an ESL student and this was her first year “exited” from the program. I have been monitoring Reenie to ensure that her “exit” from receiving services has not adversely impacted her academic success in the classroom. Reenie then referred to a Q/A/S (Question/Answer/Strategy) graphic organizer that I had provided her with to focus her thinking. She asked the following questions: “Are they going to lose the restaurant? Are they going to jail?” These were great “I wonder” statements and provided excellent feedback about her insight into the story. Reenie continued, “I also made a text-to-self connection. When we moved here, we went to JCPenney and my sister (4 years old) got lost. She was hiding in the clothing rack.” An event in the text had made her recall this personal incident, but I was still not sure if the connection added anything to her comprehension of the text. I should have asked her to elaborate on her connection and how it assisted in her comprehension. But again, the formative assessments provided me with information not only about Reenie’s thoughts during reading, but also about how I can make a bigger impact by asking the right questions.

The next day, I used the Q/A/S graphic organizer again with Marcus to see if it would help improve his text comprehension. Marcus was a struggling reader

for many years and he appeared on many “watch” lists, to be considered for learning support services. Because of his mother’s concerns and hang ups regarding such a label, we were unable to test him for such a program. Marcus read a chapter from *James and the Giant Peach* silently. As he read, he completed the Q/A/S chart. The charts appeared to help my struggling readers. They provided a focus for the students and guided their thinking as they were reading. They were easily completed during the reading, and provided a mechanism for having conversations. Marcus said, “I have a question. What was the hard thing that he ran into?” He wrote this question on his chart. Marcus demonstrated the questioning strategy, however, this question could have been easily answered with basic background knowledge about peaches. I am not sure if it was the lack of applicable background experience, or if Marcus just asked shallow questions to satisfy the requirements of the assignment. Hmm. I asked him, “What strategy do you think we could use to help us answer that question?” He responded, “I think we could read on.” I was glad to hear Marcus identify a strategy for answering questions. In this particular instance, his strategy would have worked, but I was concerned that he would not be able to apply this question/answer strategy with a different text, or without the graphic organizer.

As the end of October drew to a close, I incorporated benchmark assessments (provided by my district). Once evaluated, they provided an instructional reading level for each student, and yielded concrete information

regarding individual reading levels and the positive or negative movement of each student since the beginning of the year. The tests incorporated both fluency and comprehension and are a much more formal tool, however, the information still provided valuable data that drove my instruction, and therefore, are considered formative.

I sat down with Monique to conduct one of these benchmarks to ascertain an appropriate instructional reading level. (Monique was selected as a participant in Title I reading services, and was receiving literacy instruction from both myself and the Title I teacher each day.) Monique read the passage and scored 97% for accuracy. She read 71 words per minute, with a fluency score of 2 out of a possible 3. Although Monique did not read with expression, she was still able to decode the passage with 97% accuracy. Once Monique completed the reading, I asked her to tell me about what she learned in the book. And then a gust of wind toppled the house of cards.

Monique could recall only one fact from the text. At that point, I was extremely concerned. The text was focused on three specific animals and their respective adaptations to their environments. Monique could only remember one of the three animals, and she provided zero details about any of them. I utilized the prompts provided on the benchmark assessment in an effort to elicit more information and to jar her memory. Monique sat silently. I continued to wait for over four minutes. I thought that maybe wait time was an issue, so I was

determined to wait until she collected her thoughts. Unfortunately, she couldn't. Finally, I asked Monique if she could tell me any information from the text. She responded, "No. I don't remember." I stopped the test and asked Monique to tell me what happened when she read.

Monique: "Sometimes when I'm reading, I get nervous."

Me: "Is that because you knew I was testing you or because you were being timed?"

Monique: "No. It happens even when I am alone. I am a bad reader."

Me: "Does the text make sense when you are reading it?"

Monique: "Yes. But then when I try to remember the information, I can't."

This whole exchange just left me deflated and so sad. I didn't know if Monique's struggles were related to her beliefs about her reading ability, or if she had a learning disability that was never identified. I was concerned that it might be the latter. She was always quiet and polite, and my fear was that she had been overlooked because she was not a behavior problem, the squeaky wheel. I asked the learning support teacher to help me identify Monique's needs and develop the next steps in her education plan. If this situation does not convince you of the value of formative assessment, I don't know what will.

In a different guided reading session with James, we read a nonfiction text about weighing the pros and cons of environmental issues. I decided to ask James

to respond in writing to the text. I asked him to pick one of the issues we read about and to choose a side. He then had to write why he felt that way, using evidence from the text to support his beliefs. Here was his response:

“Well in the favor for grizzlies, it says that if killed, the ecosystem is out of balance. The grizzly spreads seeds for plants and animals to feed on. In the against favor says they are destructive abominations of nature. Well, I say we should keep the grizzly because it is wrong to kill animals.”

James was able to state both arguments presented and to pick a side and defend his position. He also added some very impressive language of his own, including “destructive abominations”. I was pleased with his higher order thinking skills and it was obvious from the response that his comprehension of the passage was excellent.

It was mid-November and Samantha was reading at a guided reading level “U” and was given a nonfiction text, *A Night at the Beach*. She selected the text from choices that I narrowed. The observation (formative assessment) took place during the pre-reading stage. Samantha immediately began looking at the text features. I was excited to see her utilizing this pre-reading strategy that was explicitly taught in a previous lesson. “Oooooohhhh,” she responded while looking at the photographs. This authentic response to the photographs showed her excitement about the text and I enjoyed watching the process unfold. Samantha then spent a minute or so reading the Table of Contents, another pre-reading strategy that allowed her to activate her background knowledge and she

began making connections to the text. “I went swimming with dolphins when I was in Canada,” she informed me.

After she previewed the text for several minutes, I asked her to share what she already knew about the topic. “I know that turtles lay eggs under the sand. Sharks see better at night. Waves are caused by gravity.” She had activated her background knowledge and used this key reading strategy well. Samantha then read the first page silently as I watched. When she finished reading, she said, “I found personification. ‘Ghost crabs dance across the sand.’” She had now identified literary elements in the text and I was in awe. All of these strategies were demonstrated without prompting from me, which indicated that she had internalized the strategies and was capable of using them independently with any text. After Samantha read the introduction, I allowed her to select the reading assignment for the next session. She decided to read through page 11 (which was more than I would have assigned.) I began to incorporate choice where possible, to promote a greater student investment in and responsibility to the learning process, all as a result of my observations and formative assessment evaluations.

As December began, I felt that it was time to incorporate the “Big Idea” sheet regarding reading comprehension. This was a tool that I uncovered during the writing of the literature review, and which I used to promote metacognition with respect to reading. There were three sections to the form: Fluency, Reading Comprehension Strategies, and Reflection. Each section had a word bank that

helped students use proper vocabulary, as well as encouraged topic area discussions that I wanted to assess. Here are some of the responses from each section:

Fluency

James: Well, I use vocabulary to add a bit of pazzaze. I also do the same with expression.

Samantha: I think I'm really good at expression. The only problem is that I'm scared to show it. When it comes to a hard words for me spelling out the vocabulary helps me.

Reading Comprehension Strategies

James: Well, I use many of these (strategies) to help me add a bit of pazzaze in my writeing & reading.

Samantha: All of these things, I think that there getting easier for me to understand. For exsample, questing and inferring is the most easyest. Monitoring is one of the reading comprehension strategies that is the hardest.

Reflection

James: Well, when I read I predict most of the time.

Samantha: My strengths are responding back to ?s. My weaknesses are putting the text in my own words. How can I get better. I think I'm getting better at reading.

As I conducted the final guided reading benchmarks in December, I was pleased with the positive gains and growth in the levels of the participants in the study. Marcus made a jump of two levels in one month's time. Yariela went from a "below grade level" classification to "on grade level".

And then there was Zena. Zena started the year well below grade level in her reading comprehension skills. Within the first 1 ½ months, she exhibited an increase of three guided reading levels. And that's where she was throughout the remainder of the research study. Zena was stuck in a rut and I couldn't figure out how to get her out. I modified instruction, provided more scaffolding, used graphic organizers to help her visualize information and ideas, but to no avail. I was proud of the growth that she showed, but was concerned that she would not advance beyond her ending level.

Monique attended a reading group taught the Special Education Teacher who supported my students in the classroom. It was obvious to me that she was having some type of processing difficulty, which she confirmed through her informal interview/conversation with me during the study. The Special Education Teacher met with her and provided a structural foundation, upon which we would like to build further skill development. Monique was also selected to receive service and support from our Title I Reading Teacher. Monique met with this teacher in a small group format every day.

Samantha blossomed over the course of this study. She progressed from an average reader to a much more involved and engaged participant. As a result, her maturity level seemed to go up, as well as her self-confidence. From the responses I received from Samantha, it appeared that she connected much more deeply with the text and took great pride in her reading accomplishments. For example, in her Paul Revere journal response, Samantha took the assignment and made it her own. Instead of writing the assignment as a diary entry, she chose instead to write a letter from Paul's wife to Paul. Her creativity was a breath of fresh air.

Maya was my shining star. Maya was classified as a Learning Support Student and had an Individualized Education Plan (IEP) for all subjects. She started the year classified as "below grade level" in all academic areas. At the conclusion of the study, she was one of my top readers, and one of the most accomplished students in my classroom. It appeared that all of the information was traveling around in her brain, and that suddenly, the wires all connected. The lights shone brightly and she had many "Aha!" moments that were very satisfying to watch.

Reenie was an ESL student who was exited from ESL program at the beginning of this year. She had a shockingly good grasp of the English language and was able to communicate her thoughts and ideas with academically sound English proficiency. I monitored her and spoke regularly with the ESL teachers.

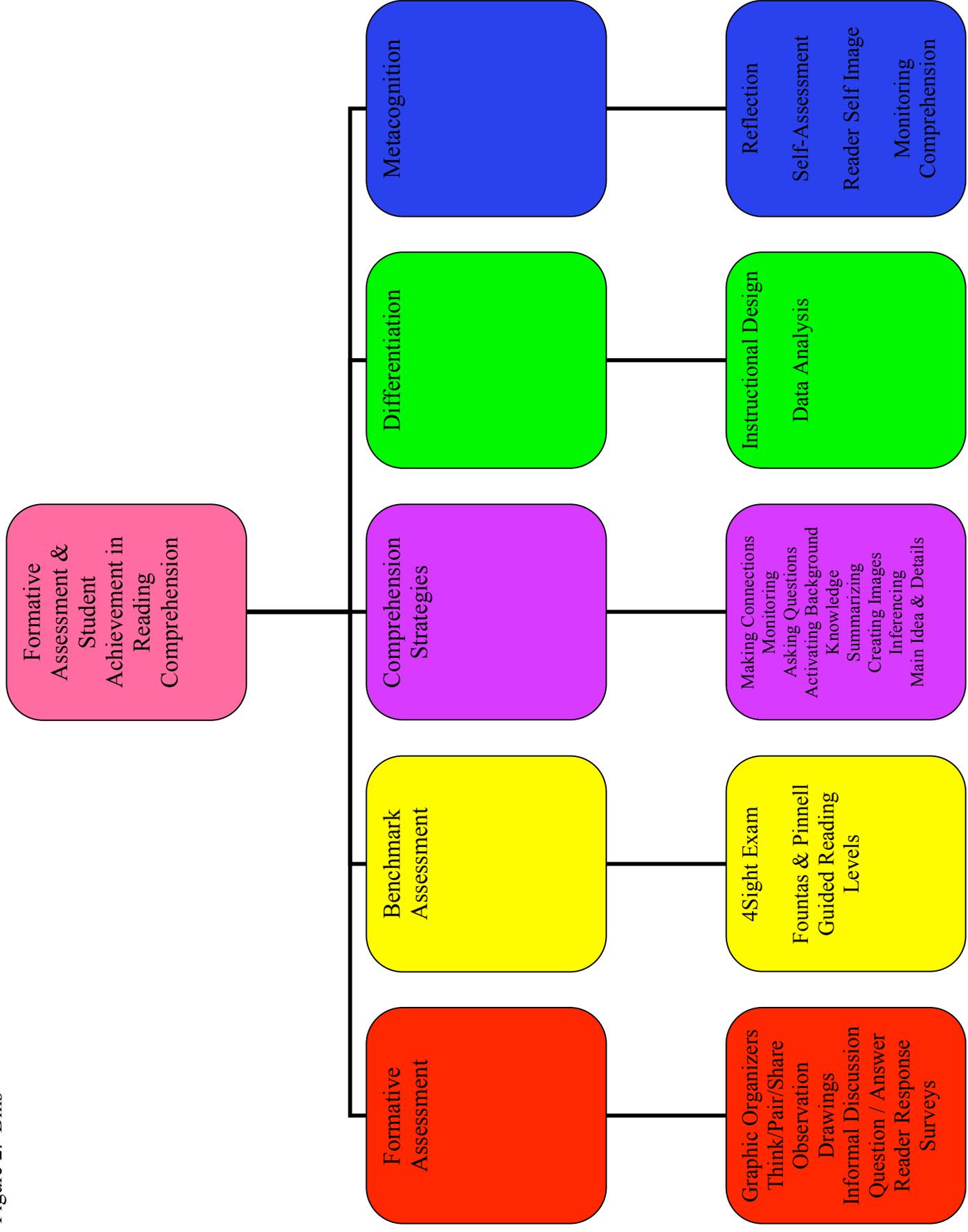
She made steady progress in her reading comprehension skills, and was a hard worker who took pride in her education.

James was a unique and intriguing student. He came to us from Columbia, and his family didn't speak English at all. James, on the other hand, had a vast vocabulary for any fifth grader. He was an overachiever and perfectionist, and loved to show off his academic abilities. He was in a reading "group" by himself throughout the study, because he was the highest reader in the classroom and there wasn't anyone at the same level. He continued to make academic gains in reading and I was excited to see him still aspire to loftier goals.

Conclusion

Formative assessments made a significant impact in my classroom, for students at all ability levels. I used several formats, in different settings, across varying ability levels, and all students benefited in some way from the experience. However, the greatest modification came in terms of my instructional practices. Without the implementation and focus on the analysis of formative assessments, I would not have recognized some of the needs, strengths, shortcomings, and ineffective practices that were inherent in my daily instruction. Through the use of formative assessments, I was able to better understand my students, and developed plans that ultimately made them more successful readers. Priceless.

Figure 2. Bins



Theme Statements

Formative Assessment

Using multiple formats of formative assessment on a regular basis provided a more accurate picture of student ability with respect to reading comprehension.

Benchmark Assessment

Benchmark assessments were inconclusive in terms of student growth in reading comprehension skills since the implementation of formative assessments in the classroom.

Comprehension Strategies

Explicit instruction of reading comprehension strategies positively effected student achievement in reading comprehension.

Differentiation

Formative assessments and the subsequent analysis of those assessments caused modifications to the instructional design of lessons, and encouraged differentiation of lessons to meet individual student needs.

Metacognition

Introducing metacognitive skills into reading instruction encouraged student reflection about the reading strategies being utilized and the effectiveness of such strategies.

Findings

“Formative assessment, done well, represents one of the most powerful instructional tools available to a teacher or a school for promoting student achievement” (Stiggins & DuFour, 2009, p. 640). Black, Harrison, Lee, Marshall, & William (2004), The Center for Comprehensive School Reform and Improvement (2009), Heritage (2007), Kaftan, Buck, & Haack (2006), Shepard (2009), and Torrance & Pryor (2001) all express the significant value that formative assessments add to the classroom, and all recognize the positive learning impact that such assessments can have on student achievement.

There are many factors that go into student achievement in reading, but I felt strongly that through the use of formative assessment, I could positively affect the reading proficiencies of my students. The following bins and theme statements emerged as a result of this action research study.

Formative Assessment

Using multiple formats of formative assessment on a regular basis provided a more accurate picture of student ability with respect to reading comprehension.

Reading comprehension is comprised of a complex skill set and cannot be adequately measured with a single assessment tool. As stated in the literature review, Brookhart (2009) is one researcher who suggests that multiple measures provide a more comprehensive picture of student achievement (pp. 9-10).

Decisions based upon multiple measures are more trustworthy and the synthesis of data from multiple tools helps to eliminate logistical inconsistencies.

Research also shows that a balanced assessment system is the most accurate and beneficial for positive student achievement. “Education leaders now understand that a variety of measures are needed to accommodate a variety of goals. The challenge for schools is designing a balanced assessment system using the strengths of summative, interim, and formative assessments to address instructional, accountability, and learning needs” (Huebner, 2009, p. 85).

As the research study progressed, I too found that using various measures provided a more accurate picture of students’ reading comprehension skills. Through the use of surveys, graphic organizers, interviews, observations, and standardized tests, I was able to gain a more accurate picture of student achievement with respect to reading comprehension.

An example of this occurred after my initial disastrous attempt at formative assessment using sticky notes to demonstrate knowledge of a particular reading strategy. I realized that I needed a more accurate picture of students’ perceptions about what the purpose of reading was. So I implemented a reading survey to tap into the affective piece of reading comprehension. And suddenly, it all made more sense. By using multiple formative assessments, I was better able to understand the thought processes of my students.

During a particular guided reading lesson, I was attempting to determine if students were creating images in their minds while reading. Through observation and discussion, I believed that the students were indeed employing the desired strategy. The next day, I utilized a different formative assessment to evaluate the same strategy. I had the students draw the images that were generated while reading. This assessment yielded a very different result. The drawings were shallow and did not show evidence of the strategy, or of the ability to comprehend the text. Yet, the day before, using observation and discussion, I was quite certain that they were exhibiting all of the expected behaviors and skills. These inconsistencies forced me to take a harder look at the strategy instruction, as well as the assessment tools that I was using to evaluate progress. Because of the multiple formats of assessment, I was able to see a more realistic picture of students' abilities.

By varying the types of formative assessment used, I also discovered a problem that apparently had been brewing with one of my students, but had escaped me during my observations. Monique was a quiet and respectful student who always put forth a lot of effort when it came to her school work. I believe that because of her demeanor, she was one of those students who fell through the cracks throughout her educational career. During a guided reading benchmark assessment, it was revealed that she was a word decoder, who had little or no comprehension of the text. When I then employed an informal interview as a

means of data gathering, she stated that she got nervous when she read, even when she was alone, and most times, could not recall basic information from the text after she completed reading. This led me to seek extra reading services for Monique, and was probably the most critical find of the entire research study. If I had not used the various assessment formats, I may never have realized the pain that was caused for this student during reading, and ultimately would have overlooked an opportunity to make a difference.

Benchmark Assessment

Benchmark assessments were inconclusive in terms of student growth in reading comprehension skills since the implementation of formative assessment.

“Formative assessment is recognized to be a powerful tool for improving student learning” (Shepard, 2009, p. 32). One type of formative assessment that was used throughout the study was Fountas & Pinnell’s guided reading benchmark assessments. These assessments were designed to provide appropriate instructional guided reading levels for students, and assisted in grouping students homogeneously. Through the use of these assessments, I was able to determine positive growth and/or regression with respect to reading comprehension and fluency skills. The following table shows the guided reading levels for all participants at specific intervals throughout the research.

Table 1. Fountas & Pinnell Instructional Guided Reading Levels

Name	September	October	November	December	January
Marcus	Q	Q	S	T	U
Monique	Q	R	R	R	S
Yariela	P	Q	S	S	T
Reenie	R	S	T	U	V
Maya	Q	R	T	V	X
Zena	Q	T	T	T	U
Samantha	R	S	U	U	U
James	T	V	V	W	X

Table 1 details the Fountas & Pinnell instructional guided reading levels that were achieved by each student throughout the study. These letters refer to leveled fluency/comprehension exams from A to Z, level A representing an appropriate instructional level for beginning kindergarten students, and level Z being an appropriate level for students in the first half of sixth grade (Appendix H). For 5th grade students, like those that were in the study, an S or T level is considered to be “on grade level” for the first quarter. For the second quarter, S, T, and U are “on grade level”, T, U, and V would be appropriate for the third quarter, and U, V, and W are “on grade level” for the fourth quarter.

These instructional guided reading levels are determined via a combination of timed oral readings and comprehension questions. The fluency / accuracy rates and the comprehension scores are computed and evaluated. From this data, the leveled reading is considered to be one of the following categories: Hard, Instructional, or Independent. The levels that are reported for each student in Table 1 were considered to be instructional at the time the test was given.

Evaluation of the data in Table 1 indicates that all participants made positive gains in reading fluency and comprehension throughout the course of the action research. The September data show that seven out of the eight participants were considered to be “below grade level” at the outset of the study, while one participant, James, was “on grade level”. At the conclusion of the research, Monique was still labeled “below grade level”, while the remaining seven participants demonstrated that their reading skills were “on” or “above grade level”. Maya and James both surpassed the reading levels for fifth grade.

The data show that five out of the eight participants improved their instructional reading levels by four incremental steps. Maya improved by seven guided reading levels, Samantha showed a positive gain of three steps, and Monique jumped up two instructional reading levels.

Another benchmark assessment used during the action research study was the 4Sight Exam, which was mandated by the district, but was used formatively to inform instruction, and utilized to determine progress in reading comprehension

skills. A baseline measure was taken in September, 2010, with a subsequent benchmark exam administered in January, 2011. The results for the study participants are indicated in the table that follows:

Table 2. 4Sight Exam Reading Proficiency Percentages & Levels

Name	Baseline Percentage	Baseline Proficiency Level	Mid-year Percentage	Mid-year Proficiency Level
Marcus	40.00	Below Basic	43.33	Below Basic
Monique	30.00	Below Basic	43.33	Below Basic
Yariela	63.33	Basic	53.33	Basic
Reenie	63.33	Basic	66.67	Basic
Maya	73.33	Proficient	76.67	Proficient
Zena	70.00	Proficient	66.67	Basic
Samantha	76.67	Proficient	56.67	Basic
James	76.67	Proficient	76.67	Proficient

Based on the Fountas & Pinnell benchmarks, all students showed positive growth in reading comprehension skills over the course of the study. However, the 4Sight Exams showed inconsistent results. Because of the discrepancies, it was important that some of the factors that contributed to the results were explained. As the study evolved, and as students became more adept at using the reading comprehension strategies, the deliberateness with which they read became

more pronounced. The students were more engaged with the texts and their reading became more methodical and concentrated, especially when reading expository texts. Unfortunately, when the 4Sight Exams were administered, we were instructed to enforce a sixty-minute time limit. I believe that this contributed to the inconsistencies in the data, and had adverse effects on the scores and reading proficiency levels. The Pennsylvania System of School Assessment (PSSA) tests are being administered in March, 2011, and I would like to analyze the results of those exams, which are conducted without time constraints.

One of the participants in the study, Samantha, showed a significant decrease in percentage on the 4Sight Exam, going from 76.67% to 56.67%, which also dropped her proficiency designation from Proficient to Basic. It is important to note that she was out of school for the final 1 ½ months of the research due to a family emergency in another country. The test was conducted the week that she returned to school. After the test results were reported, we had a conversation about the results and she stated that she had not read anything while she was away, and she felt that that had negatively impacted her score.

Comprehension Strategies

Explicit instruction of reading comprehension strategies positively effected student achievement in reading comprehension.

The literature review provided research evidence that suggested a positive correlation between explicit instruction of reading comprehension strategies and student achievement in reading comprehension skills. Keene emphasizes the importance of direct, explicit strategy instruction but takes that premise one step further. “Strategies aren’t treated as ends in themselves, but as tools to enhance understanding” (p. 71). This study further supported the existing research.

Explicit strategy instruction was embedded in this study, and a combination of the Rigby reading program and Harvey & Goudis’ Comprehension Toolkit were used to teach those strategies. The strategies were instructed in whole group settings during shared reading. The students were guided through the new strategies during guided reading, where they were able to practice the strategies with teacher support in a small group setting while reading texts that were on students’ instructional reading levels. The students were then provided with independent practice time, as they developed the skill further on their own through various activities.

As detailed in my story, there were several instances during the study where I recognized the importance of a clear, concise goal, stated at the beginning of all lessons on reading strategies. The desired outcome was explained, along with the description of the assessment tool that would be utilized to evaluate students’ proficiencies with respect to the strategies. Because of the instructional

strategies used, students were able to speak a common language and described exactly what was going on in their minds during the reading process.

One of the most difficult parts of the study was how to instruct students to simultaneously use these synergistic strategies. Because of the complexity of the skills associated with reading comprehension, the integration of the strategies was challenging. Even though the strategies were explicitly taught and were exhibited by the students via formative assessments, the isolation of the strategies proved difficult to overcome. After all of the strategies were taught individually, I had to model and guide a lot more in order for students to successfully use them simultaneously. At this point in the study, I implemented different formative assessments designed to make students' think in a more holistic manner. Basic question sheets about several strategies were used, as well as Big Idea sheets, which forced students to think reflectively about their use of various strategies.

Differentiation

Formative assessments and the subsequent analysis of those assessments caused modifications to the instructional design of lessons, and encouraged differentiation of lessons to meet individual student needs.

Formative assessments, in and of themselves, did not necessarily promote growth in students' reading comprehension skills. What they did do, however, was provided me with valuable information about the proficiencies of the

students, and allowed me to modify instruction to meet their needs. The research study also forced me to be much more cognizant of the importance of using the assessment tools on a daily basis. “But for a formative assessment system to be effective, teachers must continually check students’ learning and be willing to modify instruction to meet the student needs identified by the data” (Huebner, 2009, p. 86).

This theme of differentiation appeared over and over throughout the research study. One of the first attempts at implementing formative assessments during shared reading fell flat. Even though the students had been instructed on how to note new learning and to ask questions of the text, the formative assessment showed that they were not truly connected with what they read. This caused me to change my instructional practice, and I administered a survey to see what was truly going on in students’ minds, and how they viewed themselves as readers. From that data, it was clear that the students had a misconception about the reading process and the purpose for reading. Using that information, I created a lesson designed to make clear the purpose for reading. I believe that this was a critical moment in the study. Without that intervention, all of the strategy instruction would not have made a difference. The thinking had to be changed first.

Risko & Walker-Dalhouse (2010) suggest that classroom-based assessments are the key to differentiating instruction and the development of

appropriate interventions. The story of Monique's struggles with reading was one of the most profound finds throughout the action research. When it was discovered that she was having difficulty remembering what she read, even when reading alone, the appropriate interventions could more easily be identified, as Risko & Walker-Dalhouse suggested.

Maya was yet another example of assessments being critical to differentiation. Maya was labeled as a learning support student who was receiving special education services in reading. As the formative assessments were implemented, it was revealed that although she may have had difficulties in the past, her reading comprehension skills and fluency were progressing at grade level. Maya was moved out of the scripted program she had been participating in, and integrated into a guided reading group that was appropriate for her instructional level. Maya went from an instructional guided reading level of "Q" to "X" over the course of the study, an increase of seven levels. Those gains were atypical, but documented and confirmed via various assessment tools. The appropriate interventions were identified and she was in the highest reading group as of the end of the study.

Heritage, Vendlinks, & Herman (2009) argue that unless a teacher is able to take the data collected from formative assessments and translate that into classroom action and next steps, the positive effects of formative assessment will not be recognized.

Metacognition

Introducing metacognitive skills into reading instruction encouraged student reflection about the reading strategies being utilized and the effectiveness of such strategies.

Pre- and post-surveys were conducted with research participants and used to evaluate metacognitive processes related to reading comprehension and reader self-image. These surveys showed evidence of a transformation in student thinking from the beginning of the study to the end. At the outset of the study, students viewed reading as a process of decoding. Most responded to survey questions with thoughts about words, word difficulties, and no ideas of reading strategies and/or their uses. The same survey was administered at the conclusion of the study, and the students responded in very different ways. The comparative results of the pre- and post-surveys are listed on the following pages:

Table 3. Pre- and Post Survey Results

Question	Pre-Survey Results/Comments	Post-Survey Results/Comments
<p><i>Question 1: Do you think you are a good reader? Why or why not?</i></p>	<p>Results: 20 students responded "Yes" 7 students responded "No"</p> <p>Comments:</p> <p>"I mix up words."</p> <p>"Sometimes I don't know what word it is."</p> <p>"I think I'm good at reading because I could read Chapter book good."</p> <p>"I am not a good reader because I mess up on the word or the book is too hard for me."</p> <p>"I am not a good reader because I sometimes mess up the words or I read too fast."</p>	<p>Results: 18 students responded "Yes" 1 students responded "No"</p> <p>Comments:</p> <p>"I am a good reader because I try to understand what I am reading."</p> <p><i>"I think I am a good reader because I can comprehend a lot of what I read."</i></p> <p>"I am a good reader because I know what I read."</p> <p>"Because when I read I take my time and understand it."</p> <p>"I think I am a good reader because I go back and correct myself."</p> <p>"I think I am a good reader because I have good fluency."</p> <p>"I understand what I read."</p> <p>"I think I am a good reader because after every page I have a picture in my head about what I read."</p> <p>"I think I am a good reader because now I understand better."</p>

Question	Pre-Survey Results/Comments	Post-Survey Results/Comments
<p>Question 2: <i>What causes you the greatest difficulty when you try to understand what you read?</i></p>	<p>Comments:</p> <p>"A very long word."</p> <p>"Harder words."</p> <p>"Words."</p> <p>"Is when I get stuck on a word."</p> <p>"The hard words that are all woss geteng in my way I try to scep them but tus is just to many."</p> <p>"The words."</p> <p>"Really big words I never heard before."</p> <p>"A hard word come."</p>	<p>Comments:</p> <p>"Concentrating with a lot of noise."</p> <p>"Comprehension."</p> <p>"When I have trouble saying the word."</p> <p>"Trying to read it if I don't understand it."</p> <p>"Sometimes I read too fast and forget to read some of the words."</p> <p>"Well when they use phrases I don't understand I try and figure out by using context clues."</p> <p>"To figure what the sentence means."</p> <p>"The thing that hampers me from the words is stuff going on because when I try to understand I get distracted."</p>

Question	Pre-Survey Results/Comments	Post-Survey Results/Comments
<p>Question 3: <i>What could you do to be better at understanding what you read?</i></p>	<p>Comments:</p> <p>“Sound it out.”</p> <p>“Reading more.”</p> <p>“Nothing I have trid everything sceping speleng even sweceing book’s but nun of that is wuceing wut bo I bo?”</p> <p>“Scip the werd read the sentins and com back to it.”</p> <p>“<i>Learn all the big words I don’t understand.</i>”</p> <p>“Read more!”</p>	<p>Comments:</p> <p>“Go back and keep reading it over until you understand it.”</p> <p>“Just take your time.”</p> <p>“Concentrate with no noise and I have to be normal not like sleepy.”</p> <p>“Read a couple of minutes a day.”</p> <p>“Go back and reread the sentence.”</p> <p>“Go back and think.”</p> <p>“Read slower.”</p> <p>“I could read more.”</p> <p>“I could use some background knoleg and reread.”</p> <p>“Read more often, and practice more word and sounds.”</p> <p>“I need to focus on reading.”</p>

Question	Pre-Survey Results/Comments	Post-Survey Results/Comments
<p>Question 4: <i>What do you do when you come to a word that you do not understand?</i></p>	<p>Comments:</p> <p>“Sound it out.”</p> <p>“I also tell the teacher.”</p> <p>“Skip it and go back.”</p> <p>“Try to figure it out.”</p> <p>“I scip but it’s just that thure is to meny I just bon no wut to bo som time I red weth my sester and buther I just bont now.”</p> <p>“I asck someone what it means.”</p> <p>“Stop and sound it out.”</p> <p>“I skip the word and move on.”</p>	<p>Comments:</p> <p>“I sound it out.”</p> <p>“I get a dictionary and look it up.”</p> <p>“Ask someone or get a dictionary.”</p> <p>“I sound it out and take out the prefix and suffix.”</p> <p>“I try to read to see if it has a clue of what it means.”</p> <p>“I use a dictionary. Cut the word and use my background knowledge.”</p>

Question	Pre-Survey Results/Comments	Post-Survey Results/Comments
<p><i>Question 5: What types of reading materials are easiest for you to understand?</i></p>	<p>Comments:</p> <p>"Fichons."</p> <p>"<i>Amelia Bedelia.</i>"</p> <p>"Easy books."</p> <p>"Fiction."</p> <p>"Nothing it is all the sum harb."</p> <p>"Picture books."</p> <p>"<i>Ficshin.</i>"</p>	<p>Comments:</p> <p>"Picture books."</p> <p>"Fiction."</p> <p>"Fiction."</p> <p>"<i>Fishon.</i>"</p> <p>"<i>Fiction. Historical fiction.</i>"</p> <p>"Nonfiction."</p> <p>"Fiction. Book that have a lot of captions."</p> <p>"History."</p>

Question	Pre-Survey Results/Comments	Post-Survey Results/Comments
<p>Question 6: <i>What might stop you when you are reading?</i></p>	<p>Comments:</p> <p>"A long word."</p> <p><i>"When people talk to me. And when they make noise."</i></p> <p>"Nothing."</p> <p>"A big word."</p> <p>"A exposian."</p> <p><i>"Words that I don't know."</i></p> <p>"Thinking about something."</p>	<p>Comments:</p> <p>"People talking loud. Thinking about other things."</p> <p>"Dicstacktions."</p> <p>"When I have a question."</p> <p>"Loud noises."</p> <p><i>"Thinking of somthin when readn or tyerd or stred."</i></p> <p>"Thinking about something else."</p> <p><i>"I can't understand the book or that I am thinking about something else."</i></p>

Question	Pre-Survey Results/Comments	Post-Survey Results/Comments
<p><i>Question 7a: When you are reading and you have difficulty, what do you do?</i></p>	<p>Comments:</p> <p>“Quit.”</p> <p>“Get a new book.”</p> <p>“I sound it out.”</p> <p>“Ask my mom for help.”</p> <p>“I look at the end of the book and see if I can find it.”</p> <p>“I go back.”</p> <p>“Stop and think about it.”</p> <p>“I pick another book.”</p>	<p>Comments:</p> <p>“Reread.”</p> <p>“Go back to the top and read it again.”</p> <p>“I reread the paragraph to see if I can understand.”</p> <p>“Get another book.”</p> <p>“Reread the chapter again and again.”</p> <p>“Restart the story. Use my background knowledge.”</p> <p>“I close my eyes and I have a picture in my head to figure out what the book is trying to say.”</p> <p>“I always continue.”</p> <p>“Stop, pause and figure out and read to see what I know.”</p>
<p><i>Question 7b: Do you ever repeat what you are reading in your own words?</i></p>	<p>Results:</p> <p>14 students responded “Yes”</p> <p>12 students responded “No”</p>	<p>Results:</p> <p>14 students responded “Yes”</p> <p>4 students responded “No”</p>

Question	Pre-Survey Results/Comments	Post-Survey Results/Comments
<i>Question 7c: Do you ever reread something that does not make sense?</i>	Results: 24 students responded "Yes" 2 students responded "No"	Results: 18 students responded "Yes" 0 students responded "No"
<i>Question 7d: Do you ever ask yourself questions as you read?</i>	Results: 15 students responded "Yes" 11 students responded "No"	Results: 16 students responded "Yes" 2 students responded "No"
<i>Question 8: What is the best advice you have ever been given about reading?</i>	Comments: "Spell out the word." "If you can't read 5 words in the first page pick a different book." "The more you read, the better you get." "Nothing." "Try your best." "To sound the word out." "Pick a book that you would like." "You just have to try it or sound it out." "Chunk the words I don't understand."	Comments: "The more you read, the better you write." "Reread and go back in the story." "Read on or go back." "Keep trying." "If you don't know a word, skip it and go back." "Think back!" "If stuck reread." "Sound it out, pay attention to the words, reread to make sure it makes sense."

When the pre- and post-surveys were evaluated, the differences were significant. The students' metacognition blossomed over the course of the study. They became more aware of what was happening in their minds as they read, they better understood the purpose of reading, they employed the strategies that were taught, and verbalized the use of those strategies. Reflection was a constant theme throughout the action research, both written and verbal. From the thoughts and ideas that were expressed, and even the vocabulary used in the survey responses, it appeared that the reflections positively impacted the reading comprehension skills of students on all levels. These findings support researchers like Stiggins (2009), as well as Kaftan, Buck & Haack (2006) who suggest teaching students to reflect on their own work can help change the quality of the work, and stress the need for students to recognize that learning is for the purpose of understanding and not for test-taking or grades.

An analysis of the pre- and post-survey results indicates the following themes:

1. At the conclusion of the study, an increased percentage of students considered themselves to be good readers. (74% to 95% from pre- to post-survey results respectively.)
2. Student opinions of the purpose for reading changed from a decoding perspective, focused on word recognition and

identification, to one of engagement with and comprehension of texts.

3. At the conclusion of the study, students were better able to reflect on their strengths and weaknesses during reading, and utilized appropriate strategy identification and vocabulary to articulate these concepts.
4. The pre-survey results indicated a lack of strategy use by students when reading. At the conclusion of the study, students better understood what strategies good readers used, and they were better able to employ those strategies independently.
5. The pre-survey results showed only 58% of students asked themselves questions when they read. Post-survey results indicated that 89% of respondents asked themselves questions when they read.

Next Steps

My action research study has come to a close, and so has the chapter in my book titled “5th Grade Classroom Teacher”. These two huge events just happened to coincide, and I will now venture off on a new journey of action research, to write the next chapter, “Literacy Coach.”

Throughout my study numerous questions arose that should be investigated, such as “What are the best methods to analyze data from formative assessments?” As my study unfolded, I had a difficult time knowing how best to evaluate the data that were being collected. I tried several methods, including the Student Work Analysis Form, which was uncovered during my literature review. Unfortunately, the form seemed cumbersome, and my fear is that it would be overwhelming for teachers to use on a daily basis. So what other methods of analyzing data exist?

I also would have liked to use teacher collaboration more throughout my research. It would be much more beneficial to share ideas with colleagues, and possibly implement a team of action researchers. Going forward, I would like to investigate the possibility of having a Professional Learning Community (PLC) dedicated to designing and implementing formative assessments effectively in classrooms.

One concept that I did not attempt in my implementation of formative assessment in literacy was student/teacher collaborative assessment design.

Research indicates that when students are involved in the creation and implementation of formative assessments, they increase their commitment to learning and have a greater investment in the learning process. Time constraints prevented me from integrating these types of assessment into the study, and I would be interested in finding out how students would respond, and if there was a correlation to positive growth in literacy skills.

In my new position of Literacy Coach, one of my primary functions will be to analyze data and to support classroom teachers as they design and implement teaching strategies intended to promote student learning in reading skills across the grade levels (K-5). Through collaborative planning sessions, I hope to impart some of the findings of my action research study to promote the use of formative assessments to inform instructional decisions. I would also like to inquire about the use of common assessments designed by grade level teams. Do common assessments show trends that are not otherwise visible in individual classrooms?

What about using technology to formatively assess students? Does the modality of the assessment have a positive or negative effect on student achievement? Should students be given a choice when it comes to formative assessment? During my study, I felt that many of the assessments were in the form of paper and pencil or informal interviews and observations. I would have liked to incorporate more project-based learning opportunities, as well as

portfolios, which would show students the progression and development of their reading comprehension skills.

There are certainly more questions than answers, but I am excited about the endless possibilities that are ahead of me.

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Appendix A: HSIRB Form



MORAVIAN COLLEGE

July 8, 2010

Stephanie Binder
[REDACTED]

Re: HSIRB proposal by Stephanie Binder for Richard Grove

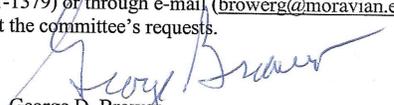
Dear Stephanie Binder:

The Moravian College Human Subjects Internal Review Board has accepted your proposal: "Formative Assessment & You: Perfect Together." Given the materials submitted, your proposal received an expedited review. A copy of your proposal will remain with the HSIRB Chair.

Please note that if you intend on venturing into other topics than the ones indicated in your proposal, you must inform the HSIRB about what those topics will be.

Should any other aspect of your research change or extend past one year of the date of this letter, you must file those changes or extensions with the HSIRB before implementation.

This letter has been sent to you through U.S. Mail and e-mail. Please do not hesitate to contact me by telephone (610-861-1379) or through e-mail (browerg@moravian.edu) should you have any questions about the committee's requests.


George D. Brower
Chair, Human Subjects Internal Review Board
Moravian College
610-861-1379

Appendix C: Principal Consent Letter

August 23, 2010

Dear Principal Marcks,

As you know, I am currently taking courses at Moravian College toward a Master's Degree in Curriculum and Instruction. These courses are an integral part of my professional development and they assist me in implementing best practices and effective teaching strategies in my classroom. These courses are helping me to provide meaningful learning experiences for my students.

From September 7th through December 24th, I am required to conduct a systematic research study of my own teaching practice. The focus of my research is how formative assessments in literacy impact the reading comprehension abilities of students. By doing this, I hope to improve student reading comprehension skills and ultimately promote a love of reading in all students.

I will be gathering information to support my study through student surveys, work samples and observations. This data collection will help me to determine how I can better meet the needs of my students. All of the students' names will be kept confidential, as well as the names of teachers, other staff, and the school. Only my name, the names of my sponsoring professors, and Moravian College will appear in this study. No names will be included on any work samples or in any reports of my study. All research materials will be kept in a secure location and all data gathered during the study will be destroyed at the conclusion of the study.

All of the students in my classroom will receive the same instruction and assignments as part of the literacy curriculum. Participation in this study is entirely voluntary and will not affect the student's grade in any way. Any student may withdraw from the study at any time by writing me a letter stating that he or she would like to do so. The parent or guardian may also withdraw the student through a letter or email. If a student is withdrawn, or the parent or guardian chooses not to have him or her participate in the study, I will not use any information pertaining to that student in my study and the student will not be penalized in any way.

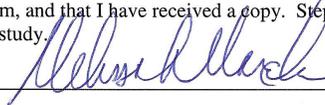
My faculty sponsor is Dr. Joseph Shosh. He can be reached at Moravian College by phone at 610-861-1482 or via email at jshosh@moravian.edu.

If you have any questions or concerns about my project, please feel free to speak with me. If you do not have any questions, please sign and return the bottom portion of this letter. Thank you very much for all of your help.

Sincerely,

Stephanie Binder

I attest that I am the principal of the teacher conducting this research study, that I have read and understand this consent form, and that I have received a copy. Stephanie Binder has my permission to conduct this study.

Principal's Signature:  Date: 12-6-10

Appendix D: Parent Consent Letter

September, 2010

Dear Parent(s) or Guardian(s),

I am currently taking courses at Moravian College toward a Master's Degree in Curriculum and Instruction. These courses are an integral part of my professional development and they assist me in implementing best practices and effective teaching strategies in my classroom. These courses are helping me to provide meaningful learning experiences for my students.

From now through December 24th, I am required to conduct a systematic research study of my own teaching practice. The focus of my research is how implementing formative assessments in reading affect students' reading comprehension skills in fiction and expository texts. By doing this, I hope to increase reading comprehension skills and ultimately promote a love of reading in all students.

I will be gathering information to support my study through student surveys, work samples and observations. This data collection will help me to determine how I can better meet the needs of my students. All of the students' names will be kept confidential, as well as the names of teachers, other staff, and the school. Only my name, the names of my sponsoring professors, and Moravian College will appear in this study. No names will be included on any work samples or in any reports of my study. All research materials will be kept in a secure location and all data gathered during the study will be destroyed at the conclusion of the study.

All of the students in my classroom will receive the same instruction and assignments as part of the literacy curriculum. Participation in this study is entirely voluntary and will not affect the student's grade in any way. Any student may withdraw from the study at any time by writing me a letter stating that he or she would like to do so. The parent or guardian may also withdraw the student through a letter or email. If a student is withdrawn, or the parent or guardian chooses not to have him or her participate in the study, I will not use any information pertaining to that student in my study and the student will not be penalized in any way.

If you have any questions or concerns about my research, please feel free to contact me by phone or email. My faculty sponsor is Dr. Joseph Shosh. He can be reached at Moravian College by phone at 610-861-1482 or via email at jshosh@moravian.edu.

Please sign and return the bottom portion of this letter, indicating whether or not your child may be a participant in my teacher research. Thank you very much for all of your help.

Sincerely,
Mrs. Binder

[Redacted Signature]

I understand that Mrs. Binder will be observing and collecting data as part of her teacher research on improving reading comprehension skills through the use of formative assessments.

- My child has permission to be a participant in the study.
 My child does not have permission to be a participant in the study.

Student Name: _____

Parent Signature: _____ Date: _____

Appendix E: Reading Strategies Survey

Sample Reading Strategies Questionnaire

Name: _____

Date: _____

1. Do you think that you are a good reader? ___ Yes ___ No Why or why not?

2. What causes you the greatest difficulty when you try to understand what you read?

3. What could you do to be better at understanding what you read?

4. What do you do when you come to a word that you do not understand?

5. What types of reading materials are easiest for you to understand?

6. What might stop you when you are reading?

7. a) When you are reading and you have difficulty, what do you do?

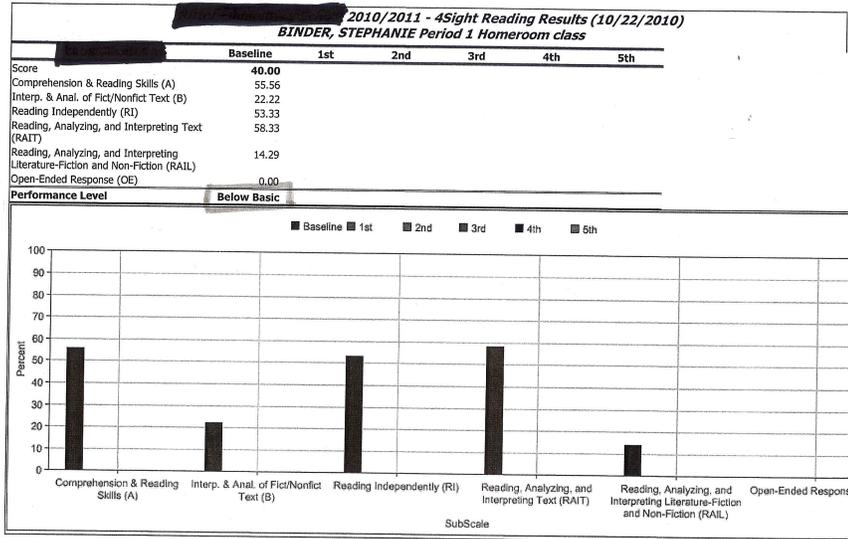
b) Do you ever repeat what you are reading in your own words? ___ Yes ___ No
c) Do you ever reread something that does not make sense? ___ Yes ___ No
d) Do you ever ask yourself questions as you read? ___ Yes ___ No
8. What is the best advice you have ever been given about reading?

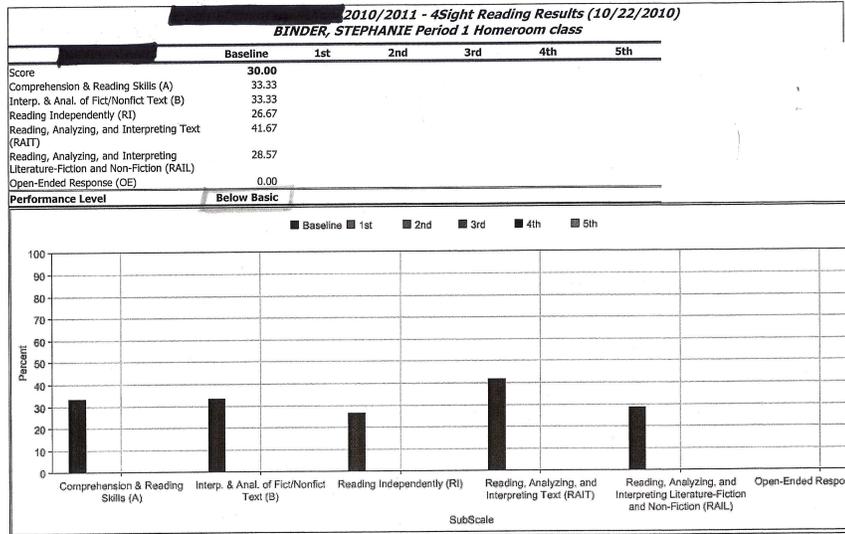
Appendix F: Monitoring Comprehension Questionnaire

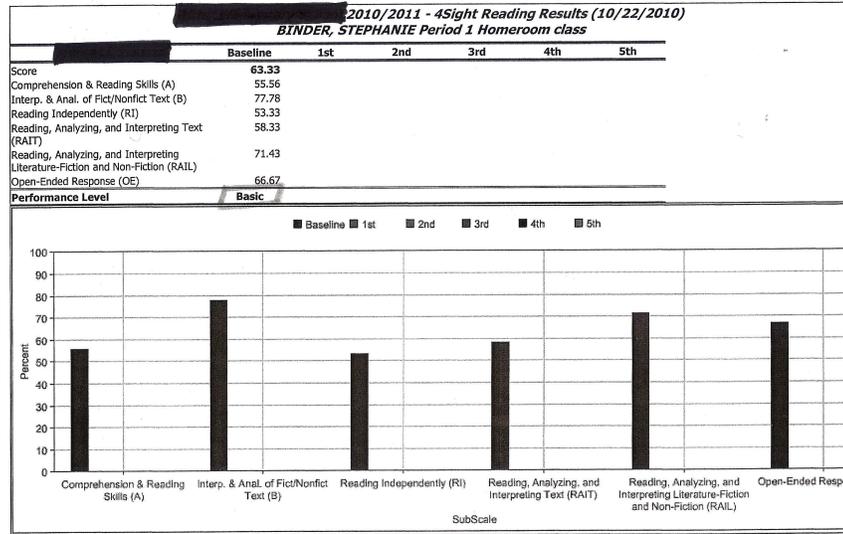
MONITORING COMPREHENSION

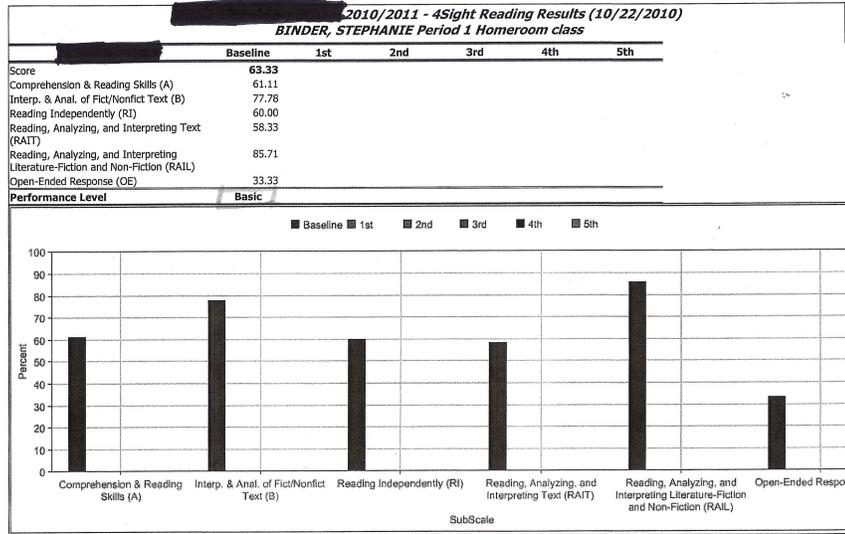
1. What questions do you have?
2. Describe any connections you made during the reading.
3. List any inferences that you made during the reading. Please support each inference with specific details from the text.
4. Detail any new learning from the text.

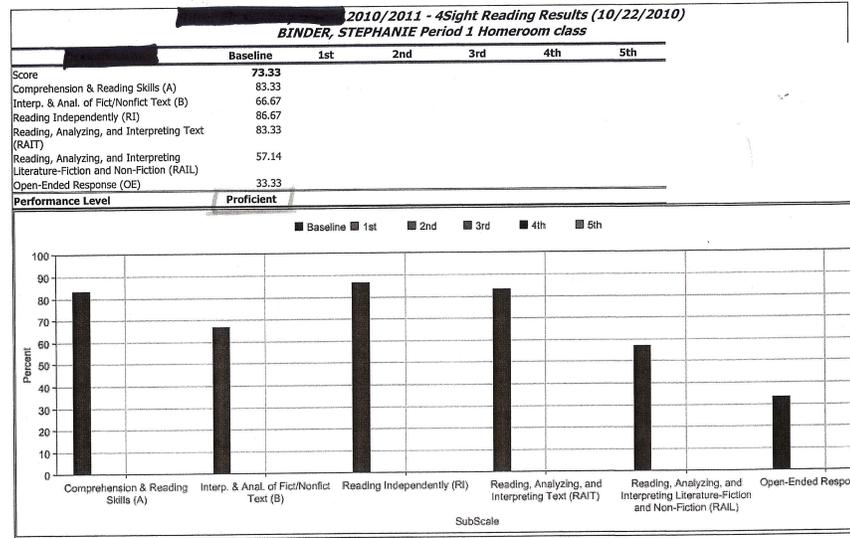
Appendix G: 4Sight Reading Results (September, 2010)

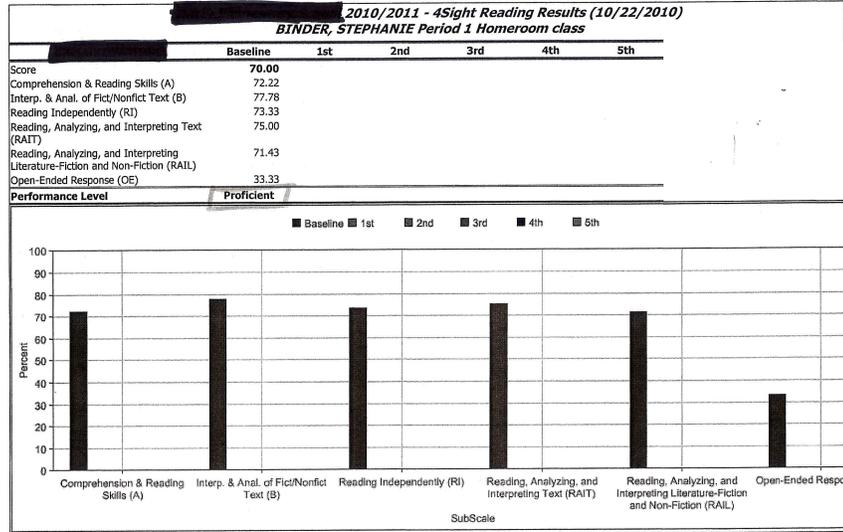


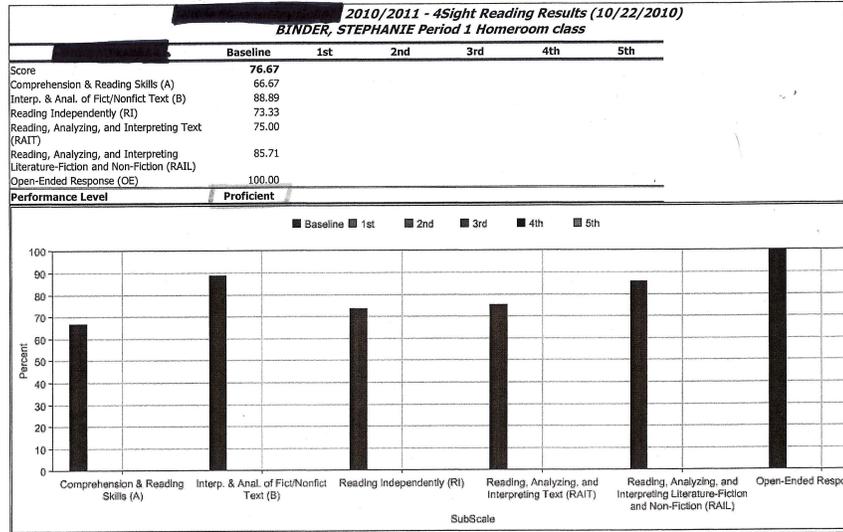


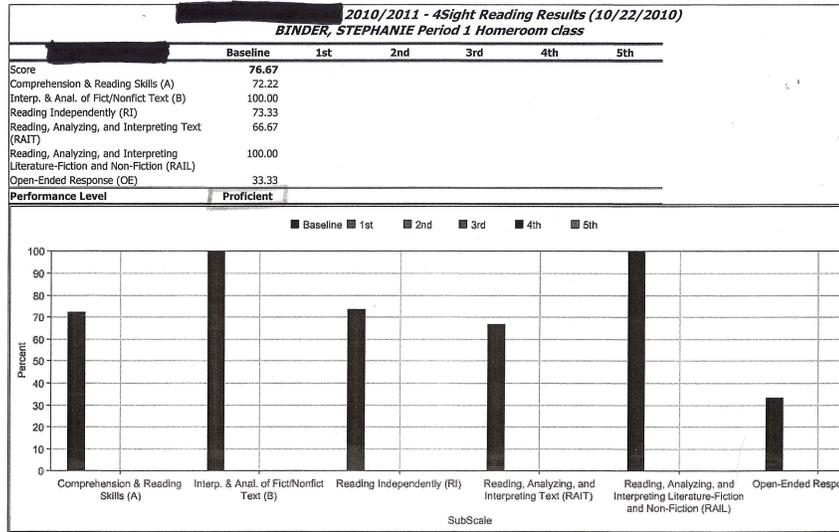












Appendix H: Guided Reading Levels

**GUIDED READING LEVELS
RIGBY LITERACY/ FOUNTAS AND PINNELL/ DRA**

	1 st Quarter			2 nd Quarter			3 rd Quarter			4 th Quarter		
	Rigby	Fountas & Pinnell	DRA	Rigby	Fountas & Pinnell	DRA	Rigby	Fountas & Pinnell	DRA	Rigby	Fountas & Pinnell	DRA
K	1	Pre-A	A	2	A	1	2 3/4	A B	1 2	3/4 5	B C	2 3
Grade 1	4 5 6	B C D	2 3 4	6 7 8	D E F	4 6-8 10	7 8 9	E F G	6-8 10 12	9 10 11	G H I	12 14 16
Grade 2	10 11 12	H I J	14 16 18	11 12 13	I J K	16 18 20	12 13 14/15	J K L	18 20 24	13 14/15 16/17	K L M	20 24 28
Grade 3	16/ 17	M	28	16/17 18	M N	28 30	18 19	N O	30 34	18 19 20	N O P	30 34 38
Grade 4		OP	34-38		PQ	38-40		QR	40		RST	40-44
Grade 5		ST	44		STU	44+		TUV	-----		UVW	-----

A student is considered "above" grade level if he or she is reading on a level above the highest fourth quarter level for his or her grade level. For example a 2nd grader must be reading at a RIGBY level 18 or higher to be considered "above" level at any point in the school year.

A student is considered "below" grade level if he or she is a reading at a level below the current quarter's levels as indicated in the chart. For example a 2nd grader reading at a RIGBY level 10 or lower in the 2nd quarter is considered "below" level.