

Analyzing Data- TE 842

Analyzing Student Data
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Case Study 1

When William was assessed he was going into second grade. He was given four different assessments to determine if he was at grade level in spelling and reading. The first assessment William completed was a sight word inventory (Fry Sightword Inventory –McKenna and Stahl, p. 117-118). “A sight word is any word that can be pronounced automatically, without conscious analysis” (McKenna and Stahl, p. 100). These are words William will encounter often in day-to-day speech. William’s sight word inventory was very informative and encouraging. He said 94 out of 100 words correctly. This is encouraging because when William reads a story, his fluency is not affected when he reads these sight words.

The second assessment William completed was a phonics inventory. Understanding a child’s phonemic awareness is important because it allows a teacher know if the student is able to identify the many sounds of letters and words (M&S, p. 129). “Phonemic awareness has many levels and includes the concept of rhyme and the ability to blend and segment words and to manipulate phonemes to form different words” (Morrow and Gambrell, p.200). Based on William’s phonics inventory, he seems to have trouble with blends, vowel consonant vowel (vcv) words and diagraphs. Blends are two consonants that make a certain sound when placed next to each other (/th/ in the) and diagraphs are two vowels placed next to each other that make a certain sound (/ia/ in dial). VCV words are words which have an /e/ at the end of the word that makes the first vowel long (cake or take).

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William's spelling assessment, Elementary Spelling Inventory or ESI, (M&S, p. 143) allows teachers to measure what level a student is at in spelling. It allows a teacher to see if the student is able to hear a sound and write the letter or letters that create that particular sound. Based on William's ESI, a teacher can see evidence supporting his phonics inventory, he struggles with blends and diagraphs.

The final assessment William completed was a reading record. He was asked to read selected texts and answer questions about what the texts. Fluency and comprehension go hand in hand. "Fluency reading should involve accurate and automatic word recognition, with appropriate prosody, or inflection. Each component affects comprehension in its own way" (M&S, p. 148). The more a student stumbles over words or phrases, the less likely they are to understand what they read. Looking at William's guided reading and concept questions, his fluency is above grade level. His rate is 91 words per minute, in second grade reading rates average between 43 and 89 WPM. Unfortunately, William's comprehension skills need a little bit of work. William is able to answer specific questions about what he read, but when asked to summarize the story or predict what could happen, he does not answer appropriately.

After taking into account all of the inventories and assessments, it's safe to say that William has some practicing to do. He knows most of his sight words, which helps when he reads, he also knows the sounds each letter makes and is able to identify them letters in words. However, he is unable to identify the sounds blends and diagraphs makes when he is reading and spelling. Extra practice in these areas will greatly benefit his reading, writing and comprehension skills.

When comparing William's scores to the Common Core State Standards for students in second grade, he is behind in two areas. The first area he is behind in is "[o]rally produce single-syllable words by blending sounds (phonemes), including consonant blends." He doesn't "know the spelling-sound correspondences for common consonant digraphs." William still needs to learn most of the blends in the English language and how to orally say them and spell them.

Based on the information gathered, there are two pressing goals for William to work on; spelling and phonics. By working on these goals, William will be able to memorize and visualize the blends and digraphs that hinder his reading and spelling skills. These goals are important for William's reading development because when he skips over, or changes, words by omitting a digraph or only pronouncing one letter in a blend, it can affect his comprehension and fluency. Mckenna and Stahl state, "it is vital that prereaders become aware of the sounds that comprise spoken words. *Phonemes*, the smallest sounds we hear in words, are the building blocks of our spoken language, and becoming aware of their presence is vital to later successful phonics instruction" (Mckenna and Stahl, p.83). William needs to practice this skill in order to progress in reading and spelling.

The spelling inventory supports this conclusion. William spells train "tran" and drive "dive." By spelling these words wrong, he has changed the meaning of the word and therefore affects the image that comes to mind when the word is read aloud (comprehension). In William's guided reading he substitutes "none" for horn and "up" for around. He sees the digraphs and is unable to say the word, so he says a word he think makes sense, again changing the meaning of the word and affecting comprehension.

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Circling back to the Common Core State Standards, William needs to be able to read the text “with sufficient accuracy and fluency to support comprehension.” He also needs to be able to self-correct and re-read a word or section if needed. William does not seem to be doing this.

Looking at the Modified Cognitive Model on page 23 (see Appendix A) in *Assessment for Reading Instruction* by Mckenna and Stahl, one is able to see the connections among a student’s ability to read and comprehend. This “model suggests that reading is composed of three separate components. Reading comprehension, the purpose of reading, depends in (1) automatic recognition of the words in the text, (2) comprehension of the language in the text, and (3) the ability to use the strategies needed to achieve one’s purpose in reading the text” (Mckenna and Stahl, p. 8). The authors go on to say that if a student struggles in any of these areas, that child’s comprehension will suffer. This is why William is having some issues.

When we look at this model, the first box is Phonological Awareness. If a child is not skilled in this area it’s where development must start or continue. William has this skill, so we will continue to the next box; Decoding and Sight-Word Knowledge. William has his sight words down, but his decoding skills are not at grade level. “While the ability to decode words and read with fluency is necessary for successful reading, and vital for comprehension, the ability to decode by itself is not sufficient to ensure successful comprehension” (Marrow and Gambrell, p. 251).

Based on this information, William and his teacher should stop here in the model and work on mastering decoding skills and brushing up on sight words. In conclusion, William’s goals are to work on his ability to identify and pronounce diagraphs and

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blends. He also needs to be able to write out diagraphs and blends accurately when he is spelling. These skills will help improve William's spelling, fluency and comprehension.

Phonics and spelling are the foundation of comprehension, to help William to better learn these skills there are fun ways to practice what he knows and teach him new information. Practicing phonics helps develop spelling skills at the same time. One strategy for helping improve phonics skills is to use rhyming activities. Most students learn how to rhyme in the first grade "including rhyming songs, jingles, and books" helps children to develop and practice their phonemic awareness (Marrow and Gambrell, p. 205). A lot of rhymes include blends, so if a student can memorize and recognize a blend in a particular word, that student will be able to identify the blend and read and spell it in another rhyming word.

Another activity that can help develop William's skills is a "simple riddle-guessing game." The teacher begins the game by naming the category and giving a clue: "I'm thinking of an animal that lives in the water and is a /f/ /i/ /sh/. The child who correctly guesses *fish* gives the next riddle: "I'm thinking of an animal that goes 'quack' and is a /d/ /u/ /ck/" (Marrow and Gambrell, p 204). This game can be done on a white board for kids to write their guesses. It can also be unit based, which is always nice.

Another fun game to play with William involves a competition to make as many silly words as he can. These words do not need to be real words, they can rhyme or the teacher can say the words need to have a /sh/ blend at the beginning of the word. This encourages students to sound out each word before writing it down and it helps them remember what particular blends and diagraphs look and sound like.

More spelling activities can be found on Spellingcity.com. On this website

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William can play spelling games, test his knowledge and review spelling rules in a variety of different ways. He can complete a word search, word scramble, and missing letter games. These educational activities will help William practice his high frequency words and help his automaticity when he is reading.

In the book *Words Their Way* the authors teach about different types of reading problems that students may have and then give creative ideas to help students learn in the area in which they struggle. One game is called “Build, Blend and Extend” (p.189). In this game, the teacher prepares a set of cards with “targeted insets and rimes.” For William’s cards, a teacher could include vcv words, such as /ive/ and the word family /ain/. The teacher would ask William to make the word “dive.” William would take the card that has “ive” on it and the “d” card. The teacher could then ask him to spell “drive” and William would keep the “ive” card and find the “dr” card. This activity “is designed to reinforce phoneme segmentation, phoneme blending, and the use of analogy as a spelling strategy” (189) and in doing this it will aid William’s fluency and comprehension.

One final game William could play to increase his phonics and spelling skills is working with word sorts. “Word sorts are another spelling- based approach to teaching children how to decode” (M&S, p.115). The teacher can give a student a list of words or when they are fluent enough the students can create their own list. The student sorts the words into two groups. For example, if a student is given the words soap, mail, snail, toad, they would be sorting the digraphs /oa/ and /ai/.

There are more fun activities and websites, such as spellingcity.com, that could benefit William in reaching his goals, but these activities mentioned above are a good

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place to start. They can be done in groups, pairs or between the teacher and student. Each activity promotes William's phonics and spelling skills.

Case Study 2

Sarah is a fourth grade student. She was given three types of assessments to determine her current reading level and what skills she needs to improve. The first assessment she was given was a guided reading and response on a narrative piece of writing. This narrative piece told a story, but was informational at the same time. This assessment measures Sarah's fluency and comprehension skills when reading narrative writing.

The second assessment Sarah was given was also a guided reading and response, but this selection is expository and only gave information and is not in story form. These readings and questions are helpful because "[b]y posing questions at various levels of thinking, a teacher can get a glimpse of how the child has processed a reading selection" (Mckenna and Stahl, p.161). This assessment also measures Sarah's fluency and comprehension skills. Based on these two assessments, a teacher can be informed that Sarah is right at grade level in fluency (WPM and CWMP). The assessments also can inform a teacher that Sarah seems to understand the information and predict when the information is in a narrative format. However, Sarah's ability to read with fewer mistakes is shown when she reads the expository selection.

The final assessment Sarah was given was an Elementary Spelling Inventory (ESI). This inventory allows teachers to see what issues Sarah has in spelling and decoding. When looking over her spelling, one can see that Sarah seems to struggle with

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knowing if a /s/ or /c/ comes at the beginning of a word. For example, the word Sarah was given was ‘cellar’ she spelling it ‘seller.’ Sarah also struggles with blends at the end of words. She was given the word ‘pleasure’ and she spelled it ‘plesear.’ This particular mistake seems to indicate that Sarah may have trouble distinguishing whether a vowel is long or short.

Based on her assessments, Sarah knows all of her sight words and she has the ability to decode words as she is reading, which improves her fluency. Sarah also has the ability to articulate what she has read and infer and predict details of the story. She still needs to learn how to decode names such as ‘Massachusetts’ and ‘Europe.’ Sarah would benefit from expanding her vocabulary.

According to the Common Core State Standards for fourth grade, Sarah needs to be able to “refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text” and “explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.” She is not doing these tasks as well as she should be able to. The CCSS also say Sarah should be able to fully “comprehend informational texts, including history/social studies, science, and technical texts, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range.” She is moving in that direction, but slowly. If she does not work on her comprehension skills, she will not be at grade level by the end of the year.

Based on the assessments administered to Sarah, there are two areas that she needs to work on. The first is her comprehension. The second is her knowledge of vowels and when they sound long or short. Evidence of her need to practice these areas can be

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found in the assessments she completed and in the standards set by the state. Looking at her reading assessments, Sarah scored 50% on her comprehension questions in the expository reading and the oral answers she gave for questions attached to the narrative reading were not specific enough. Looking at the spelling inventory, she had trouble spelling words like 'fortunate' and 'confident' because she did not use the correct vowels ('fortnit' 'confodint'). These skills are important for reading development because "comprehension is critical for successful reading" (Marrow and Gambrell, p 251). Sarah understands most of what she is reading, but some of the information seems to have been read, but not comprehended. It goes in but has trouble coming back out.

Sarah's ability to see a vcv word or blends at the end of a word and know if a vowel is long or short is important for her fluency skills. It is also very important when she is sounding out words and writing long essays in fourth grade. Mckenna and Stahl say that, "children's further growth in spelling moves from the purely sound-symbol level to the morphological level, as they master the basic orthographic patterns and move in to spelling-meaning relationships" (109-110). Sarah needs to be able to work with vowels or she will not be able to progress to the next level in her reading development.

When referring back to the Modified Cognitive Model on page 23 of Mckenna and Stahl (Appendix A), one can see Sarah moves through most of the diagram. However, the authors state, "if the child does not understand the vocabulary, lacks appropriate background knowledge, or lacks knowledge of text structure or genre, comprehension will suffer" (Mckenna and Stahl, p.8).

With this information and the assessment information in mind one can see using the Cognitive Model that Sarah has a developed Phonological Awareness, Print Concept

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and she knows how to Decode and Identify Sight Words. Her fluency is at grade level. Looking at the middle and bottom of the diagram, Sarah has Knowledge of How a Story Works and Knowledge of Reading Strategies. However, she stops at Automatic Word Recognition. She struggles identifying words she does not know and she does not seem to be putting her strategic knowledge to use. This stops her from understanding what she is reading to the fullest extent.

Many activities can help Sarah with her comprehension, but she must develop her strategic knowledge so that she can get the most out of the learning activities. “When we read successfully we never use just one strategy. Instead, we integrate the entire set of strategies in different combinations” (Marrow and Gambrell, p. 262). These reading strategies are taught by teachers during each lesson in class. An example would be teachers asking questions about a reading. These questions draw on a reader’s knowledge gained from the reading and past knowledge. Another example would be students making up questions about a reading. Students and teachers discuss what has been read and summaries are written or drawn out. All of these strategies make students’ thinking visible or as Mckenna and Stahl say “makes thinking public” (174). When students are asked and encouraged to share their thought process they are able to fully understand what they are reading.

“Students who spend too much time and mental energy figuring out words have little of either to devote to comprehension” (Mckenna and Stahl, p. 171). In order to help Sarah reach the level of reading that she should be at in fourth grade, she would benefit from the following activities. To help her with her reading comprehension, especially when she is reading expository text, Sarah needs to work on her vocabulary skills. In

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class, a teacher can help by having a word of the day that has to do with the unit that is being taught. The students can do a few activities to familiarize themselves with these words.

First, they can look the word up in the dictionary and write down what it means. This is “an important word- learning tool” (Marrow and Gambrell, p. 231). Next, the students can get together with a partner and create a way to act out the meaning of the word. This leads to increased word learning (Marrow and Gambrell, p 234). Finally, the students can create a graphic organizer. “Making word meanings and relationships visible is another way to involve students actively in constructing words meaning. Semantic webs, maps, organizers, or other relational charts, not only graphically display attributes of meaning but also provide a memory organizer for later word use” (Marrow and Gambrell, p. 233).

Activities for improving comprehension are a great addition to lessons that are taught in the classroom, but Readingrockets.com says students can do a lot on their own by developing strategies and getting into habits that promote reading comprehension. What are some ways in which kids can help themselves improve their reading comprehension? “Play with magnetic letters. See how quickly you can put them in alphabetical order while singing the alphabet song. Look at written materials around your house and at road signs to see if you can spot familiar words and letter patterns. Write notes, e-mails, and letters to your friends and family. Represent each sound you hear as you write. When you're trying to sound out a word, pay close attention to the print. Try to look at all the letters in the word, not just the first one or two.”

One fun activity Sarah can do with a partner or on her own to improve her

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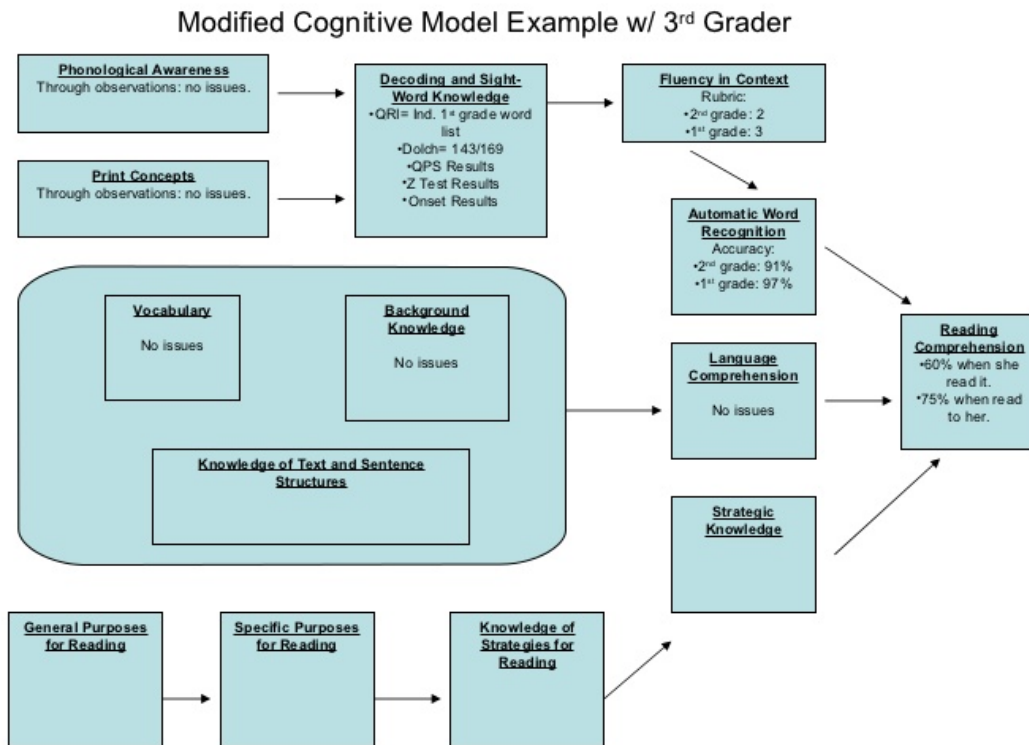
knowledge of short and long vowel sounds is decoding word scrambles (Mckenna and Stahl, p.114-115). The teacher would give an index card to the students with a word that has long and short vowels in it. This word is scrambled up. Let's say the word is 'civilize' but it looks like this on the card: eviilcz. The teacher then asks the class to write out the letters that makes up the sound 'ize'. Once the students have written or manipulated the letters into this sound, the teacher then asks them to spell 'civil'. By breaking down the parts of the word and only giving students the letters that make up the word, students do not get overwhelmed. There are several variations to this activity. The teacher could add more letters that are not in a given word or a friend can simply scramble a word and give clues to see if their partner can guess the correct word and then spell it.

In *Words Their Way*, there is a game called "Pictures Sorts to Contrast Long and Short Vowels" (212). It is used to help students distinguish between spoken long and short vowels. The long and short vowels are divided up into groups. The example the book gives it "bed" for short- e and "feet" for long-e. The students have pictures that are either a long or a short- e sound. Their job is to place the pictures that have a short-e under "bed" and the long-e under "feet." This same pattern would continue for each vowel. *Words Their Way* has material in Appendix B, but teachers can create their own based on particular units or to make the activity more challenging. "Students need hands-on opportunities to manipulate word features in ways that allow them to generalize beyond isolated, individual examples to entire groups of words that are spelled the same way" (Bear, Invernizzi, Templeton, Johnston, p.3). Using hands on activities like this allows Sarah to develop a deeper understanding for words.

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Sarah is a proficient reader, but there are some skills she needs to practice. If she practices these skills with the activities mentioned above, she will be ready for fifth grade in her reading, comprehension and spelling abilities.

Appendix A:



From *Assessment for Reading Instruction, Second Edition*, by Michael C. McKenna and Katherine A. Dougherty Stahl. Copyright 2009 by The Guilford Press.

Bibliography:

Adler, C. R. (2007, November 1). Seven Strategies to Teach Students Text Comprehension. In *readingrockets.com*. Retrieved July 18, 2013, from <http://www.readingrockets.org/article/3479/>

(2011). In L. M. Morrow & L. B. Gambrell (Eds.), *Best Practices in Literacy Instruction* (4th ed.). New York, NY: Guilford Press.

Bear, D. R., Invernizzi, M., Templeton, S., & Johnston, F. (2012). *Words Their Way* (fifth ed.). Saddle River, NJ: Person Education.

Learning Activities and Games. (2007). In *SpellingCity.com*. Retrieved July 26, 2013, from <http://www.spellingcity.com/spelling-games-vocabulary-games.html>

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McKenna, M. C., & Dougherty Stahl, K. A. (2009). *Assessment for Reading Instruction* (second ed.). New York, NY: Guilford Press.

National Governors Association Center for Best Practices & Council of Chief State School Officers. (2010). *Common Core State Standards*. Washington, DC: Authors.