Analyzing Student Data

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Analysis of Assessment Data

William, a student who is ending second grade, and Sarah, a student who is ending fourth grade, were assessed in their literacy using different inventories. The first assessment William completed was an Informal Phonics Inventory. This assessment is used to measure a student's phonics knowledge and can be utilized as a "tool to monitor specific skill acquisitions and track student progress." (Assessment for Reading Instruction, p112). An Informal Phonics Inventory provides an insight to the letters, letter sounds, and words a student can decode. In order to be a fluent reader, students need to be able to quickly and accurately decode the words in the book. This inventory can help provide insight to certain skills the child may need some extra support in.

In Mckenna and Stahl's text the breakdown for scoring a student's Phonics Inventory falls into the three categories of Mastery (80%+), Needs Review (60-79%), and Needs Systematic Instruction (Below 60%). Out of the nine subtests assessed, William met the Mastery level for only two categories; Consonant Sounds and Consonant Digraphs. On the Beginning Consonant Blends (75%) and Diphthongs (66%) subtests William fell into the Review stage. In the remaining five categories, Final Consonant Blends ng (50%), Short Vowels n CVC words (50%), The Rule of Silent a (0%), Long Vowel Digraphs (50%), and r Controlled Vowels and -al (33%), William scored in the level of Needs Systematic Instruction.

The next assessment William completed was a Sight Word Inventory. A Sight Word Inventory provides insight to a student's ability to read and pronounce a word automatically without conscious analysis. A sight word should not be sounded out. The benefit to giving a

Sight Word Inventory is each word can be seen as a separate skill being assessed. This aspect allows the administrator with a specific instructional target skill, after analyzing the results. Sight words are important when working towards fluency as a reader because it is the goal for most words to become sight words.

On the Sight Word Inventory, William was able to decode 94% of the words on the First 100 Words Fry List. As previously explained, sight word inventories "there is no cumulative score. Each word is a separate skill." (Assessment for Reading Instruction, p145). The results of his Sight Word Inventory correlated to the results of the Phonics Inventory. The words unknown contained vowel digraphs, r-controlled vowels, and silent letters all of which were areas that scored review or needs systematic instruction on his Phonics Inventory.

William and Sarah both completed a Spelling Inventory. The inventory that was used was the Words Their Way Elementary Spelling Inventory. This is an assessment that is used by educators to assess a student's encoding, or spelling, stage. Spelling Inventories are given as an "analysis of their performance on a specific word feature within a particular spelling stage."

(Assessment for Reading Instruction, p125). Spelling inventories are a beneficial tool in the realm of literacy because the analyzed results can be used as a tool for instructional planning and can help an educator create and select developmentally appropriate instructional activities.

William's Spelling Inventory also provided beneficial insight into his understanding of the relationship between decoding and encoding. It appeared that he was stopped during the assessment after the tenth word. I am interested as to why the assessment was stopped or if this was just the only information provided. In the Spelling Inventory William's results landed him approximately in the middle stage of letter name-alphabetic. We can see from the inventory that

he shows mastery of initial consonants and close to total mastery of ending consonants. When encoding the short vowel sounds and the digraphs he drops his mastery levels to 40% and 0%. These results are interesting as on previous inventories digraphs and short vowels had higher percentages of understanding. This discrepancy leads me to wonder if there is a misconception with these skills when shifting from decoding words that contain the skill to encoding these words. Sarah's Spelling Inventory provided a strong insight into her encoding skills as well. The inventory shows that she has master the first three spelling stages. After analyzing her results, she would fall in between the late stage of syllables and affixes and the early stage of derivational relations.

When comparing William's results to the standards for Reading Foundational Skills that are set by the Common Core, it is evident that his foundational skills are not where they should be for a student ending second grade. Common Core Standard RF.2.3 states that at the end of second grade students should "know and apply grade-level phonics and word analysis skills". The standard breaks down that some of the grade level phonics skills that should be known when exiting second grade are long and short vowel words, common vowel teams, and irregularly spelled word. When looking at the results of Williams spelling Inventory it is evident that these three areas are all spaces where systematic instruction is needed.

While William's Inventory clearly pointed out that his spelling inventory placed him below grade level, according to the Common Core Standards, I do not find Sarah's inventory to be as clear. The Common Core Standards states in standard RF.4.3 that student leaving fourth grade should be able to "know and apply grade-level phonics and word analysis skills". Sarah's inventory stated that she needs systematic instruction with advanced affixes and base and root

words. Those make up only one of the skills Common Core deems on grade level (morphology). Since Sarah showed strong understanding and application of the other phonics skills listed I would state that her spelling is on grade level but that she is struggling with morphology and would benefit with interventions in that area.

The final assessment that William and Sarah completed was Reading Inventory. Reading Inventories are "a sequence of grade level passages...followed by comprehension questions and occasionally a retelling scoring." (Assessment for Reading Instruction, p44). Reading Inventories are used to help determine if the selected reading falls into an instructional, independent, or frustrational reading level. Reading Inventories help educators know where a child needs support in their reading; if support is needed in decoding, encoding, or comprehension strategies.

In William's Reading Inventory he read a total of ninety-one words per-minute and correctly read eighty-seven words per minute. There was a total of one hundred eighty-one words read. Out of those words he had nine errors and one self-correction. Using the formulas provided in McKenna and Stahl's text William's error ratio is 1:20 and his self-correction ration is 1:10. When combining the error ratio, self-correction ratio, and words accurately read per minute William's accuracy for reading a level I text is 95%. William also completed the comprehension portion of the assessment and answered four out of the six questions correctly for a percentage of 66%. Taking his accuracy and comprehension into account I would score this text at an instructional level.

In Sarah's Reading Inventory for level P she read a total of seventy-one words per-minutes and correctly read sixty-five words per minute. The passage had a total of three hundred eight words read. She has eight errors and one self-correction. Using the formulas

provided in the text Sarah's error ratio is 1:39 and her self-correction ratio is 1:9. When taking those ratios into account, along with her words correctly read per minute, it can be stated that Sarah read the level P passage at 97% accuracy which would fall under the independent level. Her comprehension scored what would be in between an independent and instructional level.

Since Sarah scored independently on a level P passage it makes sense that she was then assessed on the next level, Q. This passage had a total of two hundred and ninety-seven words. Sarah read seventy-six words per-minute, sixty-eight of which were read correctly. She had no self-corrections and eight errors. Using the provided formulas this gives Sarah an error ratio of 1:37 and a self-correction ratio of 1:0. Combining these ratios with her words per-minute scoring, Sarah read a level Q passage with 97% accuracy. However, she answered only two of the comprehension questions correctly and struggled to retell what she read. This places her comprehension at a frustrational level. Taking her accuracy and comprehension into account Sarah would fall in the instructional category for level Q.

In McKenna and Stahl Table 3.2 a table is given that outlines the expected guided reading levels for students at different grade levels. According to the table on page forty-five second grade students are expected to enter at an independent level J and should reach an independent level M by end of year. William's Reading Inventory placed him at an instructional level I, which we could presume he would then be an independent level H. This would place William below grade level. Common Core standard RF.2.4.a states that by the end of second grade, students should be able to "read grade-level text with purpose and understanding". Based on this standard William is approximately five independent reading levels behind where he needs to be.

Table 3.2 states that fourth grade students should be independently reading a level P text and at the end of fourth grade students should be independently reading level S. Sarah's Reading Inventory places her end of year independent reading at a level P and instructional reading level at a Q. This places Sarah below grade level in her independent reading. Common Core standard RF.4.4.a explains that when exiting fourth grade students should "read grade-level text with purpose and understanding". Based on this standard Sarah is about two reading level below where she is expected to be.

Goals for Instruction

William Goals

The first instructional goal that I would like to set for William is based on the results of his spelling inventory and phonics inventory. The goal for William is to improve his application of letter-sound knowledge when moving from decoding to encoding.

In the Cognitive Model, displayed in Mckenna and Stahl and that was further explained in Unit One's PowerPoint, we explore the importance of understanding the relationship between letters, sounds, and words and their impact on a student's ability to be a fluent reader. Pathway One breaks down the influence of a student's automatic word recognition on their reading. When a child is more focused on decoding, sounding out, the words in the text they are reading they are unable to concentrate on comprehending the context of what they are reading. We have determined, based on the Common Core Standards, that William is below grade level in his phonics. Since he is behind in his phonics skills it is understandable that we see that affecting his fluency and comprehension. McKenna and Stahl explain that "when a child stumbles over words or sounds out many words, their understanding typically suffers" (Assessment for Reading

Instruction, p10). By working to increase William's Automatic Word Recognition we will in turn impact the second goal set for his literacy.

The second instructional goal for William is based on his Reading Inventory results. The second goal for William is to strengthen his comprehension of a text read, specifically retelling. McKenna and Stahl's text explore the concept of retelling and state "studies have demonstrated that just the practice of retelling narrative and expository texts results in improvements in adherence to story grammar, selection of high-level propositions, and cued recall." (Assessment for Reading Instruction, p204). On the Reading Inventory, William struggled to give detailed answers. Since I could not hear William's reading for myself I am left to draw conclusions based on the recording sheet. Based on his words per minute and comprehension score I assume that William's automaticity and prosody are low. The first goal should help increase both of these reading qualities. When we address those areas, we will give William the ability to focus less on decoding the individual words and place focus on comprehending what is being read instead.

Sarah Goals

The fist instructional goal for Sarah is to improve her encoding and decoding of words that involve affixes. This goal is set based upon the outcome of the results and analysis of her Spelling Inventory. In her Spelling Inventory I was able to break down the results to see that her challenges with encoding becomes most apparent with affixes and bases or roots. Both of these are skills that can be explained by thinking about the morphemes present. Morphology is broken down into the following categories: prefixes, suffixes, affixes, base words, and roots. A morpheme can be best explained as "the smallest unit of meaning in a word." (Assessment for Reading Instruction, p117).

The second instructional goal for her is to work to expand and increase her vocabulary, in order to increase her ability to comprehend the text that she is reading. This goal is based on her Reading Inventory Results. It could be seen in the pre-reading sections of the reading inventory that Sarah has low prior knowledge about the topics she was readings. If you do not know anything about what you are reading it increase the difficulty level when trying to comprehend that information being read.

Instructional Strategies

William Strategy One

To meet the goal for encoding a decoding, in order to increase William's Automatic Word Recognition, I would implement an individualized word study program for him. McKenna and Stahl talk strongly about the implementation of a word study in their text when they state "deep rooted robust word knowledge best develops when we provide a variety of ways to work with words." (Assessment for Reading Instruction, p129). A word study is comprised of different activities aimed to address read words, writing words, manipulating words, and transfer word knowledge to the students reading and writing. In order to best use the word study, I would use Williams Words Their Way spelling inventory results and begin with activities aimed towards digraphs and blends.

William Strategy Two

Another tool that I would implement in order to support William's first goal would be the use of the activity Break and Make. This activity comes from The Florida Center for Reading Research. In this activity students are given the opportunity to practice segmenting and blending

phonemes in order to make words. With more practice in segmenting and blending William will be given practice with the skills that assist in the encoding and decoding of words, which will help his application of letter sound knowledge.

William Strategy Three

To meet William's goal of comprehension I will implement the use of graphic organizers. The Florida Center for Reading Research. One of the activities that FCRR provides for educators is the Read and Ask tool. In this, students have a paper dice. On each face of the dice is a different question that helps the student monitor what they have read so far in the text. Throughout the reading of an at level text the student is paused, asked to roll the dice, and then discuss the answer the question rolled. This would be a beneficial tool for William because it will allow him to monitor his comprehension while he is reading instead of waiting until the end of a text. This is a great scaffolding tool for comprehension that will increase Williams confidence in his reading abilities.

William Strategy Four

Another strategy that I would implement to aid in William's comprehension is the use of Concept Sorts. A Concept Sort can be completed before reading or while reading. There have been proven benefits to the use of sorts at both times of reading and a correlation found to increased comprehension. According the research done by Reading Rockets, "when used before reading, concept sorts provide an opportunity for a teacher to see what his or her students already know about the given content. When used after reading, teachers can assess their students' understanding of the concepts presented" (Reading Rockets, 2007). By working on pre-reading

concept understanding and during reading, William will increase his ability to use prior knowledge in partnership with knowledge gained from reading to best understand a text.

Sarah Strategy One

To address Sarah's goal on morphology of words I would use the activity Embellished Words, which comes from the Florida Center for Reading Research. In this activity students make words using base words and affixes by playing a board game. Students use a game board and words cards. Taking turns students roll and move their game piece to a space and read the affix on the game board. They then must pick up a word card and read the affix with the word. This activity not only helps student word to decode and encode new words but it will also help to heighten their understanding of affixes and read words work together and can change the meaning of a root word.

Sarah Strategy Two

To help aid in accomplishing the first academic goal for Sarah I would work to teach Greek and Latin roots. McKenna and Stahl acknowledge the power of understanding these roots hold when they state that "when we teach just one powerful root we are giving our students the key to unlock scores of related word meanings" (Assessment for Reading Instruction, p119). There are many different activities that roots can be taught. One hands on and engaging way is to make them into a memory game. Students flip all cards face down. They then work to match the Latin or Greek root to its meaning. The goal is to match the roots with their meanings as quick as you can. If playing with a partner the goal would be to make more matched than your opponent.

Sarah Strategy Three

To word on increasing Sarah vocabulary, in order to address her second goal, we will use fryer squares. McKenna and Stahl talk about the importance of not just having student memorize the definition found in the dictionary, but instead encourage the use of "cognitively engaging activities. All evidence suggests that students require multiple exposures to target words."

(Assessment for Reading Instruction, p191). Through the use of a fryer square students will be able to word to understand the meaning of the word through illustration, application, morphology, and part of speech. When taking these separate areas and combining them into one activity Sarah will see a close look at how different literacy aspects combine together to help us read. As we word though challenging words and new words we will be able to increase her words knowledge and skills to breakdown words in order to better understand their meaning. The hope with this activity is that when she is independently reading in the future she will be able to think about and apply different skills to discover the meaning of any unknown word she comes across to help her better comprehend the text that she is reading.

Sarah Strategy Four

The final strategy to help Sarah reach the goals set is a vocabulary activity called Defining Depictions. This is one of my favorite academic interventions that is provided by The Florida Center for Reading Research. In the activity students pair drawings with the meanings of vocabulary words to help create a stronger understanding. This activity reminds me of whole-body learning, creating a body movement with content knowledge, this helps students create a correlation with the movement and content and helps them to recall the information later. This vocabulary activity will be beneficial for Sarah because it will allow her to create a parallel of understanding.

References

- Dougherty, S. K. A., Flanigan, K., McKenna, M. C., & McKenna, M. C. (2020). *Assessment for reading instruction*. The Guilford Press.
- English Language Arts Standards "Reading: Foundational Skills "Grade 2. English Language
 Arts Standards "Reading: Foundational Skills "Grade 2 | Common Core State Standards
 Initiative. (n.d.). http://www.corestandards.org/ELA-Literacy/RF/2/.
- English Language Arts Standards "Reading: Foundational Skills "Grade 4. English Language
 Arts Standards "Reading: Foundational Skills "Grade 4 | Common Core State Standards
 Initiative. (n.d.). http://www.corestandards.org/ELA-Literacy/RF/4/.

Fourth and Fifth Grade. (n.d.).

https://www.fcrr.org/student-center-activities/fourth-and-fifth-grade#sca7.

Second and Third Grade. (n.d.).

https://www.fcrr.org/student-center-activities/second-and-third-grade.

Submitted by Kathy Leach (not verified) on August 22. (2020, January 3). Concept Sort:

Classroom Strategy. Reading Rockets.

https://www.readingrockets.org/strategies/concept_sort.