Rachel Wraley

ED 228

2-26-13

Student Background Assessment

Based on the data I received from Dr. Ward I had expected a slightly different student. I had expected a couple different types of students. One that maybe cared about school but completely did not care at all about ISTEP. Maybe the student who's exceedingly bright but had such severe test anxiety that caused him/her to struggle with ISTEP. Lastly, I thought I might get a student with severe reading comprehension issues.

However Deasia Martin is a typical thirteen year old seventh grade student. She likes to hang out with her friends, watch TV, read books, spend time with her family, and listen to music when she is not at school. When at school she likes the reading parts of her language arts class and math.

Her career goal is to become a detective, like the ones off her favorite TV show *Law and Order*. When she talked about her goal I could tell that it's something she is looking forward to, just like me looking forward to having my own classroom. There was a spark of interest and excitement in her eyes and I knew how passionately she wants to be a detective.

While looking at her data I hadn't expected to get a student who liked to read, but reading is actually one of Deasia's hobbies. I never would have guessed that from looking at her ISTEP scores. And I never would have guessed that, though she did not do well on the Math portion of ISTEP or in her first semester pre-algebra course, she likes

math. Nothing on the papers given to me by Dr. Ward could have prepared me for getting a student who likes math and reading.

Here is some quick background on Shortridge High School. 67.9 % of Shortridge student population is Black with Hispanic, White, Multiracial, and Asian making up the remaining 32.1% and 77.9% of the students are receiving free or reduced lunch (based on the figures of 2011-2012 school from the Indiana Department of Education). This shows the ethnic and socioeconomic backdrop of Shortridge and IPS has trouble finding teachers willing to deal with the problems that the students face growing up in the socioeconomic community that is Shortridge's district. Unfortunately the districts problem with teachers has affected students like Deasia.

Deasia doesn't like IPS as a school district. She says that the teachers are all really bad because the district will take anyone with a licensure. She spends so much of her class time trying to understand what teachers are expecting her to learn. She wants to learn, but not enough of her teachers have gotten her convinced that they care.

She also thinks that a public school in the suburbs of Indianapolis (Ben Davis, Pike, Avon, etc) would be better for her. She feels it would offer her more opportunities in the classroom and after school. I think she also dislikes IPS because of the stigma it has been given by the community, the suburbs of Indianapolis, and Educational professionals. I have heard multiple people say they would never work at IPS simply because of what they have heard about the district. This is why IPS is hiring almost anyone with a teaching license and the students are starting to hate school because of it.

When I initially read through all the ISTEP data and her report card/progress report I thought she must really be struggling with reading comprehension. Her scores in the Reading portion of the English/Language Arts test correlated with her Math scores. Then I saw that her Writing scores were amazing. This was the proof I need to help me concluded that Deasia must have a reading comprehension problems that makes the Reading portion of ISTEP harder than the Writing. While examining her Math scores I realized that there must be a Math literacy issue along with her reading comprehension struggles.

To truly understand what Deasia's strengths and weakness are in Math, I decided to take problems that incorporated the use of equations and pictures. I focused on geometry-based problems because geometric problems are the most common types of questions that use both pictures and equations. Watching her work through the problems I selected for her led me to the conclusions that her challenges in Math include having trouble using equations to solve problems and that her trouble with equations stems into her having challenges using equations to solve geometric, algebraic, and word problems.

She has a really difficult time understanding what the question is asking for and applying the information given in the problem to an equation, a picture or both. In geometric problems creating a picture is half the battle and since she can't take the information given to her and draw a logical picture she gives up. The same thing happens if she supposed to figure out or remember an equation based on a picture that is given in a problem.

Her strengths in mathematics are more psychological than analytical. Anyone can sit down and add 2+2. Students have been programmed to do that since kindergarten. But there are psychological strengths that are beneficial to students as well. For example, if Deasia is confident about the process necessary for a problem, she dives right on in and 99% of the time she does the problem correctly. She also has a strength that most students never get in mathematics, she doesn't second guess herself on every problem. So many students know how to do things but start second guessing themselves and end up confusing themselves to the point where they can't finish the problem. These strengths will help her out when she gets into more advanced classes in the future.

Now that I had pinpointed her main strengths and weaknesses I needed to select standards that targeted her weaknesses while not focusing solely on them. I've chosen to focus on two standards about Expressions and Equations: 7.EE.3 and 7.EE.4. The main idea of 7.EE3 is to be able to solve multi-step real life problems involving equations and 7.EE.4 has the same main point except that variables are incorporated into the equation and solved for. I also chose to focus on two standards about Geometry: 7.G.1 and 7.G.6. The main idea of 7.G.1 is solving problems that involve scaled objects and drawing geometric figures. 7.G.6 is solving real-world and mathematical problems that involve geometric equations such as area, volume, and surface area.

Now to take the standards and some strategies and help Deasia improve her reading comprehension of math problems and her math literacy. To combat Deasia's reading comprehension I plan to use the "Coding the text" strategy from Harvey, S., &

Goudvis, A. in *Strategies that work: Teaching comprehension to enhance understanding*. I'm going to modify the strategy by removing one of the connections. She'll read through a problem, then make connections to her life and the world around her and say what the questions means to her. My hope is that her thinking about questions will evolve. Instead of just reading through the problem and thinking "what do they want?" I'm hoping her thinking will develop into "what does the question mean?".

To improve Deasia's math literacy, as she reads through problems she will write down any word she doesn't know the meaning of. After she has finished making her list, we will go through the words together. My hope is that eliminating the confusing words and helping her gain meaning for them the questions won't appear as daunting and she will be more confident on problems that those, recently revealed, words are in, in the future.

After meeting with Deasia and "assessing" her math knowledge, I think helping her understand from equations come from in a word problem or a picture and how a picture can be created from a word problem or an equation will help her tremendously, not just on standardized tests, but in future math classes and in her real life.

The only concern or question I have is how can I effectively manage my time? It is very easy for a math major to get lost in math. I could discuss it for days on end, but I only have an hour with her once a week. In order to get my goals for her accomplished I need effective strategies for managing my time. What are some?