A Critical Look at Data-Driven Instruction

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“The term data-driven instruction refers to a teacher’s use of the results from various student assessments to plan instruction. Research has shown this process to be an effective way to improve student achievement” (Thompson, 2010). By utilizing assessments to assist in planning instruction, the educator can better tailor the lessons to the student needs. The assessments will drive where students may need enrichment or re-teaching, as well as the type of instruction that the students would respond most positively to. “It was included as one of the four pillars in the American Recovery and Reinvestment Act (2009), indicating that federal education officials seek to ensure that data and evidence are used to inform policy and practice” (Mandinach, 2012). This is evidence that data-driven instruction is becoming increasingly more important and prevalent in our school systems. “For well over a decade, accountability for student learning and overall school performance has been associated with standardized tests. Consequently, American public school districts nationwide have become increasingly focused on data-driven school improvement” (Pella, 2012). Therefore, this is a topic that is critically important for educators to understand and be able to put into practice.

Throughout the course of my master’s program at Touro College I have learned a great deal about data-driven instruction. I have been able to learn about this important topic in my courses, through the EdTPA process and during student teaching. I learned that there is some controversy around the topic, because there can be a lot of emphasis on standardized tests. However, I also learned that there is a wide variety of assessment types that can be used for data-driven instruction, and that it shouldn’t just focus on standardized tests. “A teacher’s integrated formative assessment during instruction can provide immediate data to drive relevant, appropriate, and immediate instruction” (Pella, 2012). This is one key take away from my coursework, that it’s important to continually be doing assessments so that immediate action can
be taken if needed. Assessment should be built in to each and every lesson. This doesn’t mean the students need to take an exam every day, but each lesson should include a way for the teacher to determine the progress students are making and where additional teaching may be required.

Another important topic I learned about is the different portions of data-driven instruction that would make it a success. These include baseline data, clear goals, regular assessments, and well-focused and well-planned instruction. “Baseline data gives a good sense of where students are at the beginning of the year” (Thompson, 2010). This can be done through the prior year state tests depending on grade level, or pre-tests given at the beginning of the year or unit. Understanding where a student is at the beginning of the year/unit will help drive instruction by allowing the educator to determine where to focus attention. The next piece of data-driven instruction is setting clear goals. “Clear goals for what students are expected to learn and to achieve; these goals are usually related to state standards and grade-level expectations” (Thompson, 2010). As I learned throughout the program, the goals are key to the success of data-driven instruction. The goals will help keep the educator on track and be able to monitor progress of students.

The third piece is “regular assessments across the school year; frequent assessments provide multiple pieces of evidence about student knowledge and skills. Such assessments help to benchmark students’ progress across the school year” (Thompson, 2010). This is similar to the aforementioned topic of not just focusing on standardized tests, but ensuring students are being frequently assessed. The final piece of data-drive instruction is “well-focused and well-planned instruction that is based on evidence; these data show what students know and are able to do and what they still need to learn” (Thompson, 2010). This is the key to data-driven instruction. Without this piece, there is not a successful plan in place. The previous steps lead to the planning of instruction that is based on the assessment data.
I was able to see all of these items I learned about in practice during my student teaching. Having the understanding from my courses and EdTPA work of the importance of data-driven instruction, I was able to contribute to the conversation and planning based on the assessment results. Most of my practicum experience was in inclusion classrooms, where I found this to be particularly important. There is a wide array of ability levels, so it is important to be constantly monitoring progress and have the ability to be a dynamic educator. If the students don’t seem to be getting something, the teacher needs to be able to try a different method. From a baseline perspective, I was able to participate in pre-tests at the beginning of the year, as well as at the beginning of each unit. We would evaluate those responses to determine where to focus the lessons and to see which students may need additional enrichment activities.

From a goal setting perspective, I was able to assist by setting goals both for the class as a whole in the way of objectives for each lesson, but also specific goals for student’s IEP’s. I would also work with students to set specific goals in certain subjects. For example, I worked with students to set a specific reading goal for their level and taped it on their book baggie so it would be front of mind. I would work with them frequently to monitor progress on that goal, and create a new goal if one was met. I also was able to do frequent and regular assessment. There was assessment built in to all lessons, from an actual unit test to a checklist as we walked around the room to see how students were performing. As mentioned, it is important to have a wide variety of assessments. Finally, the key to data-driven instruction, planning based on this. One example of how I did this was in math. We utilized two math questions in each lesson as an assessment. Based on those responses we were able to dynamically group students based on need. This was done across subjects, and having the background knowledge from my classes greatly helped me as I worked in the classroom.
There is some debate on where and how much of instruction should be data-driven. I believe that in the core subjects, all instruction should be data-driven. To be clear, I do not mean that teachers should “teach to the test.” “If schools are held accountable for only the student learning that is reflected in standardized test scores, then it is logical that teachers would be encouraged to develop standardized assessment pedagogy” (Pella, 2012). This is the exact definition of “teaching to the test” which is the opposite of what I believe the true benefit of data-driven instruction is. While standardized tests should play a part as teachers and schools are judged on those results, it is the daily assessments that should really drive instruction. All educators need to be able to understand their students and their understanding of a given topic. “If schools are held accountable for student learning that is demonstrated across various circumstances of performance, then teachers must develop a richer knowledge base about the connections between teaching and learning” (Pella, 2012). This is the key to success with data-driven instruction. By using regular, frequent, and a variety of assessments to drive instruction, teachers will truly make the connection between teaching and learning. After each lesson, I believe teachers should review the assessment material, whatever that may be (worksheets, exit ticket, checklists), and use that to plan the following lesson.

Another topic that some people either confuse or put in the same conversation is evidence-based instruction. This is when instruction and curriculum is based on reliable evidence from experiments. The difference being that the experiments are done on a set group of students and the results are taken and turned into instructional practices. Whereas, with data-driven instruction it is based on the students in the classroom and what is going on each and every day. In my opinion, data-driven instruction is more important as it is based on the understanding the students who are in front of you. I do see a purpose for evidence-based
instruction however, as it is important to use proven methods in a classroom. In an ideal world, an instructor would use evidence-based practices to create instruction that is based on the assessments done. I think if these could be combined it would create the most effective classroom possible. Overall, both of these topics are important for teachers to understand and I will use what I learned throughout my master’s program to create the best environment of learning that I can.
