Empowering Students With Data

By Kimberly Long

These days you can’t open the newspaper or surf the Internet without seeing a headline about test scores. The problem with these headlines is that all assessments are lumped into the same category. Now data has become synonymous with high-stakes tests. Since when did data become the villain in the classroom?

Teachers have been using formative and summative data to inform their teaching for a long time. Interpreting data helps teachers understand how students learn, and how best to meet their needs. Historically, data has only been reviewed by adults. But what would happen if children were taught how to understand this information? Mind Shift, an educational website exploring the future of education, reported when students themselves identify, analyze, and use data from their learning, they become active agents in their own growth. They set personal goals informed by data they understand, and they own those goals.

Robert Marzano explores empowering students with data in his book The Art and Science of Teaching. His research shows a 32 percentile point gain in achievement when students track their own progress. Carol Dweck’s research on growth mindset reminds educators to teach students how to overcome challenges in order to persevere. Put all this research together and you have the perfect recipe for a dynamic learning environment.

It is one thing to understand the research on student ownership of data; it is something else to figure out what that looks like in your classroom. Here are four easy steps to help you build students’ understanding of their data and make powerful changes to your classroom.

1. Start Small, Stay Focused
Pick one subject area if you teach multiple subjects, or start with a single unit if you specialize in a particular content area. Regardless of the students’ ages or the class curriculum, you may want to focus on one aspect of the curriculum such as vocabulary, reading fluency, or math facts.

Continue to narrow your focus by picking one objective, standard, or “I Can” statement to channel your energy. Determine how you’ll communicate this to students. Post it on the board, make a poster, use a QR code, list the standard on a handout, or include it in a presentation.

2. Pick a Data Collection Technique

Once you know what you want students to focus on, it is time to figure out what type of data you want to share with your students, and how long the data collection will take place. Pre- and post-test grades provide an easy way to see what students know at the beginning of a unit compared to their mastery of content at the end.

Rubrics help students review explanations of the various skills assessed in the unit. It’s not about the number of points associated with a student scoring “developing” or “proficient” in a category. Instead, the focus should be on the students’ understanding of why they fell where they did. Many researchers prefer rubrics over weekly quiz grades because they are more consistent. It can be challenging to make sure the difficulty of a quiz is the same week after week.

Observational data can also be utilized. If you’re focusing on speaking standards, have students record themselves reading using a mobile device. What about video recordings? Record students during literature circles, science labs, or other activities. We ask our National Board-certified teachers to record themselves; why not use this form of data collection with students?

Depending on your access to technology, you may be able to gamify your curriculum by using various apps. Have your students collect data from their level of mastery, or the badges they have earned. Many educational games and apps have quizzes built into them, providing easy access to data for your students.

3. Progress-Monitoring Options

You know what you want your students to be focused on, you have the data, so how do you teach students to interpret it? One of the easiest methods, loved by kinesthetic and visual learners, is the creation of graphs and charts. Students can graph their scores on pre- and post-assessments, their improvement over time on a rubric, or their progress on a mobile device assessment.

Checklists are also useful tools. At the end of a unit, ask students to reflect on their assessment or rubric score by having them complete a checklist recognizing what standards they mastered and which ones they’re still working towards. A long-term idea could include students tracking when a specific standard was taught and revisited throughout the year to remind students of key concepts of the class.

There are a variety of reflective activities that require students to interpret data they’ve collected, or had shared with them. First, students can reflect on the specific learning objective, standard, skill, or “I Can” statement. Make reflection a habit in your classroom by having students answer specific questions every time they finish a unit, turn in a formal paper, or complete a summative project.

Larry Ferlazzo uses an improvement rubric with his high school students to have them reflect on what they’ve learned throughout the entire year. Other teachers have used video recording software, as opposed to writing, to have students explain their learning while showing pieces of a
4. Make It Happen

Don’t forget to think through the logistics of your plan, and how you want students to keep their data organized and safe. You know how items can get "lost." Have students create a separate section in their class binders, or on their mobile devices in an app like Notability. As you grow more comfortable with students monitoring their data, you may want to develop a folder, or even have students create their own data tracking binder.

You know you have everything in place for students taking ownership of their learning when they can answer the following questions: How do I know I’m learning? How do I know how I’m progressing?

Make 2016 the year you teach students not to be afraid of the little four-letter word: data. Remember, it’s as easy as starting small, simply by selecting one data collection technique and teaching students to reflect on the information available to them.

How do you help students embrace data in your classroom?

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