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Formative Assessment: The Driving Force Behind Differentiation

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"I don't have time to administer formative assessments, let alone differentiate! I have too many standards to cover!"

This lament smolders in our minds and bursts from our lips. It hovers, tapping middle grades teachers on the shoulders as we plan units and debate with ourselves about whether we really have time to stop and see if our students "get it."

It whispers in our ears, "What if they don't?" and bullies us into time-crunched corners as we wonder how we can possibly take time to discover and address the inevitability of varying learner needs.

And it surreptitiously veils the reality that incorporating frequent learning checks into daily instruction can actually raise student performance.

In truth, the teacher's job should resemble that of a water-skiing boat driver, and that job is two-fold: to drive the boat *and to check the skiers*. If we drive, full throttle, through our curriculum, hoping only to "cover" all our standards, we may reach the end of the lake and discover that many of our skiers dropped off along the way.

Woven into this analogy is the essence of both formative assessment and differentiated instruction—terms that have almost as many definitions as they have letters. If we want to use these constructs effectively, we must be clear about their meaning.

Assessment. Richard Stiggins describes assessment as the process of gathering information about student learning to inform instructional decision-making. The typical notion of assessment (a test at the end for high-stakes decision making) does not fit that definition.

Differentiation. Differentiation is what Carol Ann Tomlinson calls a proactive response to learner needs. When we differentiate without concrete evidence of learner needs, we run the risk of making assumptions about students and assigning them work that doesn't quite "fit" them. In other words, we differentiate for the sake of *being different* rather than for the sake of *meeting needs*.

So, with these definitions in mind, how can we formatively assess our students, use the results to differentiate instruction, and still address our mandated curriculum? How can we make instructional adjustments efficiently so that we don't leave some students treading water and others scrambling to stay afloat?

Be clear about what you want students to know, understand, and do.

When planning a lesson, clearly articulate the knowledge, skills, and understandings you want students to take away. Standards documents articulate what *knowledge* and *skills* are expected; it's often up to us, however, to determine the "why" behind the standards. In the case of metaphor, for example, we may want our students to understand that "metaphors give us power to paint pictures in readers' minds."

Similarly, standards and texts outline the knowledge and skills involved in teaching an algebra lesson on graphing, but we must take a step back to determine a transferable understanding goal, such as, "When there are multiple ways to solve a problem, we choose the method most efficient for the job based on the data available."

The *understanding* questions give us the most bang for our buck in formative assessment, because students' responses yield a more accurate picture of how well they actually grasp concepts. Subsequently, we'll have a better idea of what they need next to support or push them further in their thinking.

Design a short, "down and dirty" assessment that measures all three types of learning goals.

Formative assessments do not have to be formal, nor do they need to be lengthy. In fact, they can be as simple as an exit card assessment given during the last 5 or 10 minutes of class.

Figure 1 displays questions a language arts teacher used to determine her students' grasp of metaphor before she taught the lesson. Questions 1 and 2 addressed knowledge and skills; question 3 delved into the *understanding* objective and helped the teacher determine which

students had a working understanding of the topic. This shaped the way she approached instruction the next day.

Figure 1

Metaphor Formative Assessment

1. What is a "metaphor"?
2. Give at least two examples.
3. Explain why songwriters and poets use metaphors.

A math teacher administered an exit cards activity (Figure 2) after a day of instruction. Through students' responses to questions 2 and 3, the teacher quickly determined who grasped the facts and skills emphasized during instruction about graphing lines. The last question helped the teacher determine which students truly internalized the content in such a way that they were ready to embark on the next phase of learning.

Figure 2

Algebra Exit Pass

1. Draw a graph and label the x and y axes.
2. Graph a line segment with the endpoints (3,5) (7,2).
3. Graph a line segment with the endpoints (-3,-5) (7,2).
4. Provide two ways of writing the equation for a line and explain which one you believe to be the most efficient and why.

Examine assessment results and discern patterns to determine who needs what in terms of instruction.

Figure 3 presents a twist on a Frayer Diagram that could be administered during a unit on Egyptian culture. Instruction would focus not only on Egypt's defining characteristics, but also on how it (like all cultures) represents an interdependent system. Students' responses in the boxes would demonstrate their awareness of the facts, but the last question in the diagram ("How did the different elements of culture influence each other?") should reveal which students grasped the deeper understanding.

Figure 3

Egyptian Culture

Describe Geography	Describe Commerce/Economy
Describe Religion	Describe Traditions/Contributions

On the back, describe how these categories are related to/influence one another.

Teachers with this kind of information at their fingertips can quickly identify 1) those students who hold misconceptions about Egyptian culture; 2) those students who struggle to recall important information or distinguish among the elements of culture; and 3) those students who discern areas of connection and influence among its elements and are ready to investigate further.

Develop tasks that correct student misconceptions, fill in knowledge gaps, and require students to use what they've learned to build and strengthen understanding.

Two activities arose from the teacher's examination of assessment results from the activity illustrated in Figure 1.

1. Those students who struggled to articulate examples of metaphors and explain their importance discussed how they could convey different aspects of their personalities through two-line metaphors. They then wove these comparisons into a "Metaphor Me" poem composed of a series of couplets.
2. The students who were able to give descriptive examples of metaphors and to explain their importance developed a "Metaphor Me" poem by continuing one comparison (e.g., to love, to a trophy) for four stanzas.

All students wrestled with the same knowledge, skills, and understandings, but each did so at the appropriate level of challenge. At the end of class, students from both groups proudly shared their poems.

The Nuts and Bolts

Formative assessment should be a routine part of the classroom culture. Students come to

expect and appreciate formative assessment activities and teachers benefit from a constant stream of focused information on student.

Let's face it, the last five minutes of class do not represent the pinnacle of the adolescent learning curve; rather, students mentally shift to the hallway to retrieve forgotten materials from lockers, to position themselves by the water fountain at just the right time to see the current focus of their adoration. They are not hanging on to our every word, despite how energetically or emphatically we deliver it.

Taking the last five minutes of class to ask students to reflect on what they've learned provides them with the chance to solidify their learning and gives teachers valuable information to plan more effective lessons.

Should you grade these formative assessments? How can you ensure students invest in completing them if you don't?

Richard Stiggins, in his book *Student-Involved Assessment FOR Learning*, explains that formative assessments should "… promote, not merely judge or grade, student success." Formative assessment should give teachers a means to determine the effectiveness of instruction.

It would not make sense to grade students on something used to guide the process. That would be akin to awarding medals during gymnastics practice. If students can tell teachers are using the results of formative assessments—to make groups, to highlight important insights—they are more likely to invest in the process. If students don't perceive a purpose, they will sense the fruitlessness of their efforts and respond in kind.

Using formative assessment on a regular basis changes the climate of the classroom. It connects teachers and students in ongoing dialogue about what is being taught and learned. If sustained, this dialogue is powerful enough to transform our practice.

As Lorna Earl shares in her book, *Assessment as Learning: Using Classroom Assessment to Maximize Student Learning*, "Once you have a sense of what each student holds as 'given' or 'known' and what he or she needs in order to learn, differentiation is no longer an option; it is an obvious response."

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