Effective pre-assessments can illuminate where students are now so that teachers can lead them to mastery.

Pre-assessment has a bad reputation. That's largely because pre-assessment is so often used only to compare pre- and post-unit results, thus serving as little more than a thief of instructional time and a discouraging exercise for students.

As Hattie (2012) reminds us, students' innate development and simple exposure to material will naturally cause some growth in a student's achievement over time, even if no instructional intervention takes place. The traditional use of pre- and post-assessments may measure that expected growth, but it does little to actually increase student learning. To harness the power of pre-assessment to improve student achievement, we must craft sound, efficient pre-assessment instruments and use those instruments thoughtfully to drive instruction.

Ground Rules for Effective Pre-Assessment

Pre-assessment is a way to gather evidence of students' readiness, interests, or learning profiles before beginning a lesson or unit and then using that evidence to plan instruction that will meet learners' needs. The advent of more rigorous national standards makes the intentional and thoughtful use of pre-assessment even more crucial as teachers seek to prioritize, focus, and differentiate instruction for the wide variety of student needs represented in increasingly diverse classrooms.

Useful Pre-Assessments

To enable teachers to design effective lessons differentiated for readiness, pre-assessments must be designed to reveal significant differences in the knowledge, skills, or conceptual understandings of students. In addition, the most useful pre-assessments

- Are administered shortly before the lesson or unit will be taught so that they provide the most up-to-date information about students' strengths and needs.
- Serve as an invitation to the coming learning experience, not a barrier.
- Pique students' interest in what they're about to study.
- Include just a few key questions.
- Are aligned with key lesson or unit goals—the facts, skills, and understandings that are essential for students to know. (Wiggins & McTighe, 2005)
- Gauge students' understanding in addition to their knowledge and skill.
- Are accessible to all students, rather than restricted to those with enriched backgrounds.
- Seek to discover what students do know instead of seeking to confirm what they don't know.
- Give students different and multiple ways to show what they know.
- Uncover potential connections between the student and the content.

A strong pre-assessment taps the well of the student's mind to draw out anything he or she might know, understand (or misunderstand), and be able to do relative to the upcoming unit. But a pre-assessment doesn't need to be long or complicated to achieve this goal. In fact, the best pre-assessments are often short and to the point. The
questions should effectively wake up the students' minds and prod them to provide the teacher with information that can inform planning.

**Less Useful Pre-Assessments**

A pre-assessment is useless unless it tells teachers what and how students are thinking. For this reason, multiple-choice and true-or-false items do not usually lend themselves well to pre-assessment unless students are prompted to explain, defend, or justify their choices. Similarly, giving students long lists of specific terms to define or highly complex tasks to complete often yields little valuable information.

What about using an end-of-chapter test from the textbook as a pre-assessment? This is problematic for at least two reasons. First, such tests are usually designed to gauge factual knowledge, not conceptual understanding (which is also why they might not make good summative assessments without substantial revision). Second, textbook assessments tend to rely on question formats that either don't capture students' reasoning or allow students to answer correctly simply by guessing. In other words, they're not helpful for informing instruction.

**Designing a Pre-Assessment: Where to Start**

Pre-assessment design begins with clearly articulating the goals of the unit or lessons—what all students should know, understand, and be able to do (Tomlinson & McTighe, 2006). Without that spotlight on key goals, pre-assessment design is truly a shot in the dark—as is all other instruction in the unit!

Next, consider any crucial prerequisites. What knowledge and skills must students already possess to meet the requirements of the unit without great struggle? For example, a pre-assessment for a unit on linear equations would probably include questions that ask students to add and subtract integers.

Then, as you design questions, make sure that the pre-assessment focuses on measuring student understandings rather than just knowledge and skills. Some teachers find it helpful when drafting a pre-assessment to code their unit goals and note next to each prospective pre-assessment question which goals that question would measure.

Finally, limit questions on the pre-assessment to those that have predictable instructional implications. Surveying students about narrow bands of dates, names, or definitions, for example, can squander valuable pre-assessment opportunities: Such foundational information will most likely be included in the unit lessons regardless of student answers on the pre-assessment. Further, students' factual knowledge—or lack thereof—does not provide enough information to guide decisions about how to challenge or support students' processing of the unit's more complex content.

**Looking Inside Students' Minds**

Fortunately for teachers, no student—regardless of background or experience—approaches a concept, topic, or skill "empty" (Jensen, 2005). Every student's brain is teeming with things they already know; things they understand; things they think they understand (which may actually be misconceptions); things they're interested in; and things they're not interested in. Pre-assessment enables the teacher to look inside students' minds and ask, "What's going on in there?" Without pre-assessment, it can be all too easy to make false assumptions about what students do and don't understand on the basis of preconceived impressions or months-old standardized test results.
Pre-assessment is a time-saver, too. It can tip off the teacher to potential trouble spots in a planned unit of study and help the teacher direct the focus of a unit more precisely on what's most essential for students to learn or master, given what they already know or don't know. Student responses on pre-assessments can provide ideas for lessons and activities. Individual or collective responses often make for intriguing lesson hooks or reflection prompts.

By revealing where each student is beginning, pre-assessment can uncover places in the unit where different students may need different instruction to make progress. However, because pre-assessment cannot predict student growth over time, it cannot and should not be used as a measure to place students in learning groups for the duration of a unit. Readiness changes constantly as learning goals change, as students gain knowledge and skill, and as the teacher responds to patterns in student needs (Tomlinson, 2003). So during the unit itself, teachers must regularly check in to see how students' learning is progressing, where they are stuck, and what support they need to take the next step. In other words, pre-assessment is a starting point, not a definitive sorting tool.

Education experts Hilda Taba and Deborah Elkins (1966) warned, "Teaching in the dark is questionable practice." At its best, pre-assessment can turn on the lights. It can illuminate student thinking, interests, learning preferences, experiences, and even the content itself. Armed with the most current classroom-level data about student understanding and skills, teachers can make proactive, timely decisions about the instruction that will enable learners to achieve mastery. Pre-assessment isn't just a catalyst for differentiation—it's a launching point for more effective teaching and learning in general.