

Rigorous Assessments: The Key to Student Achievement

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Rigor is a key component of effective instruction and assessment. Too often, we think that our instruction and assessment is rigorous, but they are not. Our assumptions about rigor, as well as our practices, make a difference in what we expect from students. In *Rigor is Not a Four Letter Word*, I define rigor as “creating an environment in which...

- each student is expected to learn at high levels,
- each student is supported so he or she can learn at high levels, and
- each student demonstrates learning at high levels.



Although each of these are important to improving student learning, our focus in this paper is on the third component: student demonstration of learning. Quality assignments must be rigorous, which includes questions, tasks, and other assessment that address higher level questioning and skills. For example, in a math classroom, we often think that, after students complete a variety of word problems, we can increase the rigor by asking them to create their own word problem. It may be a bit more challenging, but that is still an application activity, which is a lower level (2) on Webb's Depth of Knowledge. In order to reach a level 3 (considered rigorous), students would need to recognize and explain misconceptions. For example, students could review three word problems that have a solution. They must identify which one or ones are incorrect, solve them correctly, explain why the first solution was incorrect, and why their solution is correct.

Formative Assessment

There are nine characteristics of effective formative assessment.

Effective FORMATIVE Assessment

Focus is improving teaching and learning

Ownership of assessment shared by teacher and students
Requires feedback to move learning forward
Meta-cognition and self-assessment encouraged
Activates students to be peer-assessors
Takes place during instruction
Identifies where a student is and helps them move forward
Variety of frequent assessments
Examples of goals and grading criteria provided

Incorporating rigorous formative assessments can inform teachers' instruction and positively impact student learning.

Examples of Formative Assessments

Checklists

Checklists are a strategy that can be used as a part of teacher observation. Checklists can be simple yes/no tallies, or they can be open-ended for teachers to add notes.

Sample Mathematics Checklist

Characteristic	Notes
Student demonstrates problem-solving ability.	
Student demonstrates persistence while solving problems.	
Student reflects on his/her thinking.	
Student shows applications of learning to real-life	

You've Got Mail

Edutopia (<http://www.edutopia.org/resource/checking-understanding-download>) recommends using "You've Got Mail". As the author describes it,

“Each student writes a question about a topic on the front of an envelope; the answer is included inside. Questions are then “mailed” around the room. Each learner writes his or her answer on a slip of scratch paper and confirms its correctness by reading the “official answer” before she places his or her own response in the envelope. After several series of mailings and a class discussion about the subject, the envelopes are deposited in the teacher’s letterbox.”

Summative Assessments

Summative assessments are typically used at the end of a chapter, unit, or topical study to assess students’ overall understanding. They also form the basis for grades, particularly those used to compute a final grade for the report card. Although they can be used for diagnostic information, they differ from formative assessments in that their focus is different.

Examples of Summative Assessments

Matching Tests

At times, matching test can become a guessing game. A more rigorous approach is an expanded matching format that creates three columns which must be matched. In the example below, you’ll also notice there are more choices than items, which requires students to narrow down the answer. To push advanced students to an even higher level, ask them to create a fourth column, in which they create their own category and choices to match.

Women’s Historical Contributions

Person	Contribution	Time
1. Fannie Lou Hamer	A. U.S. Civil Rights activist and wife of Martin Luther King Jr.	g. 1800’s
2. Shirley Chisolm	B. Ran for state senate on the platform of increasing minority employment	h. 1910’s
3. Marie Curie	C. First African-American congressman (woman)	i. 1920’s
4. Alice Paul	D. Discovered the elements radium and polonium.	j. 1950’s
		k. 1960’s
		l. 1970’s

	E. Formed the Congressional Union (later named the National Women’s Party) to raise public awareness for women’s rights as a part of the Women’s Suffragist Movement. F. Known as “Moses” and lead many slaves to freedom along the “Underground Railroad”.	
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Short Answer/Essay Tests

We frequently use short answer and essay questions to assess students’ understanding. Once again, there are less rigorous, and more rigorous ways to ask questions. Look at the examples of short answer questions below.

Less Rigorous Example	More Rigorous Example
What are two ways in which the vast desert regions of Southwest and Central Asia affect the lives of the people who live there?	Which of the two deserts, the Gobi or the Karakum, is easier for surviving for those who might live there and why?

A Final Note

Although rigor should be integrated throughout all aspects of the teaching and learning process, assessment measure whether or not students are able to understand and apply content at a rigorous level. It is critical that teachers assess the level of rigor, and improve tasks, assignments, and other assessments to ensure they are rigorous.

For more information, check out Barbara’ book, *Rigor and Assessment in the Classroom*, at <https://www.routledge.com/collections/10881>. Barbara also regularly works with schools and districts for on-site professional development, Skype sessions, webinars, expert review of teachers’ assessments, leadership training, and Train-the-Trainer models. You may contact her via her website: www.barbarablackburnonline.com.