Chelsey Herrmann Michigan State University CEP 813

Criteria for Effective Assessment

	No Understanding	Partial Understanding	Complete Understanding
Measures deeper, higher-level thinking/ understanding	All questions or tasks require superficial understanding and/or rote memorization	Most questions or task require superficial understanding and/or rote memorization. Attempts are made at incorporating higher-level thinking questions/tasks	Includes questions or task that require complex thinking and evidence of deep understanding
Measures transfer of knowledge	Requires learner to merely repeat what was directly taught in class; no connections made to new learning	Requires learner to stretch learning in class into new contexts. Many questions are repeated what was already taught.	Requires learner to apply knowledge/skills learned to a new context
Occurs in the middle the learning process	Given at the end of instruction	Includes opportunities for future learning	Occurs in the middle of the learning process; related learning has occurred before the assessment and will occur afterward
Aligned with desired learning outcome	Measures something other than the desired learning outcome	Is mostly aligned with the desired learning	The questions/tasks on the assessment accurately measure the desired learning outcome
Includes language accessible for all learners	Contains much language that may be a barrier for students: passive voice, complex syntax, unrelated high-level vocabulary. The learners' backgrounds are not taken into consideration.	Contains some language that may be a barrier for students: passive voice, complex syntax, unrelated high-level vocabulary. Attempts are made when possible to take the learners' backgrounds into consideration.	Written in the active voice and in simple syntax. Any high-level vocabulary used is directly related to the learning goal being assessed. Where possible, the learners' backgrounds are taken into consideration.
Includes a self-assessment component	No opportunity for learner to self-assess	Provides opportunities for students to self-assess learning if they take the initiative themselves	Provides a space requiring the student to self-assess learning
Criteria for good performance is clearly articulated	The performance goal is unclear.	The performance goal is clearly articulated OR exemplars are used.	Descriptions of the performance goal are clearly articulated AND exemplars are included.
Includes a clear opportunity for effective external feedback	No opportunity is available for external feedback from teacher to student. There may be a clear opportunity for a grade upon	Opportunity is available for external feedback from teacher to student.	Opportunity is clearly provided for external feedback from teacher to student. There is no evidence that a grade will be

	initial completion.		given upon initial completion.
Allows learners to close the performance gap	Resubmissions are clearly not allowed. Students receive a grade and/or feedback but are not granted the opportunity to do anything more.	Resubmissions may be allowed. There are opportunities for learners to apply or reflect upon feedback if they initiate the process themselves.	Resubmissions are allowed and the learner is required to apply feedback to a new and similar task or reflect upon the provided feedback
Incorporates meaningful technology	The assessment does not involve technology.	Incorporates basic technology appropriate for the task being assessed.	Utilizes technology that supports the assessment and allows for learner creativity, flexibility, and individualized responses in pursuit of 21st century literacies.

1. The assessment measures deeper, higher-level thinking and understanding.

- a. Explanation/justification: Many assessments today, especially high-stakes standardized tests, promote and reward rote memorization and superficial knowledge. While this kind of recall may have been valued in early twentieth century education, it is no longer in line with our society, as noted by Shepard (2000, p. 5). More and more of classroom instruction is intended to engage students in higher-level thinking, complex problem solving, and deep understanding. Our assessments, therefore, must reflect this shift. Shepard (2000) states that "This means expanding the armamentarium for data gathering to include observations, clinical interviews, reflective journals, projects, demonstrations, collections of student work, and students' self-evaluations" (p. 8). These assessments may look differently than the paper and pencil multiple-choice tests of years past, but the important thing is that they are effectively assessing the kind of thinking we want our young people to be able to do both in the classroom and in their post-secondary lives.
- b. Evidence: An assessment that reflects this paradigm shift would not be limited to multiple-choice questions that require little more than rote recall. The questions asked and demands made of students would necessitate complex thinking. Certain background knowledge and skill would certainly be needed, but much of the problem solving would be done during the assessment itself. For example, rather than asking a multiple-choice question about a character's personality as a 1929 high school achievement test did (Shepard, 2000, p. 7), an assessment could provide a brief reading passage and then ask the student to analyze the character's motivations. Designing, implementing, and assessing such a tool would require more work than a standard multiple-choice test measuring superficial knowledge, but our twenty-first century students and their needs are certainly worth this effort.
- 2. The assessment measures transfer of knowledge.

- a. Explanation/justification: As one of the Common Core State Standards for all high school students is to "spell correctly," I have begun to emphasize spelling in my high school English classrooms (National Governors Association Center for Best Practices, 2010). This decision was also based on my students' reported needs and my own observations of their work. However, I told my students that I don't really care if they can memorize a list of words and spell them correctly once on a test. Instead, I want them to be able to spell words correctly naturally in their own writing. In "Linking Formative Assessment to Scaffolding," Lorrie Shepard (2005) states, "A goal of learning is for students to be able to extend their knowledge and apply it in new situations." An assessment should not be measuring how well a student can do on that particular assessment; instead, it should require students to transfer the knowledge they have learned into new situations, thereby truly demonstrating the depth of their understanding.
- b. **Evidence:** When considering transfer of knowledge, Shepard (2005) says, "It becomes appropriate to expect extensions, applications, reformulations, and connections on summative examinations." An assessment must ask the student to take what they have learned and apply it in a new situation. This may be hard to gauge on a single assessment, but a look at the broader unit should reveal that the assessment is not asking students to regurgitate what they have learned verbatim; true understanding is taking that knowledge and applying it elsewhere. Therefore, the assessment and the lessons/practice work should not be identical. In a Youtube video published by Hawker Brownlow Education, *Understanding by Design* author Jay McTighe says, "Just because a student knows things, doesn't means they understand it...Can you use what you've learned in a new situation? Can you explain it in your own words? Can you teach it to someone else?" An effective assessment should ask these kinds of questions of the learner in order to truly measure his or her understanding.

3. The assessment occurs in the middle of the learning process.

a. Explanation/justification: An assessment is traditionally given at the end of instruction as a summative means of evaluating what a student knows or does not know. Following the assessment, the instructor moves on to the next material. When assessments are regularly given in this manner, however, they do not inspire students to continue working with the material and improving their learning, which should be the goal. Shepard (2000) states, "In order for assessment to play a more useful role in helping students learn it should be moved into the middle of the teaching and learning process instead of being postponed as only the end-point of instruction" (p. 10). That word "useful" is key. We want assessments to be useful for student learning, and if they are are given as an

- end-of-unit test that is handed back and never viewed again, it is difficult to argue that it is being useful in helping that student learn.
- b. Evidence: Like Shepard says, this shift would require moving assessments to different places in instruction rather than merely at the end. They would be part of an ongoing cycle of learning, allowing students to receive feedback and then continue to work with that feedback in order to improve. The assessment would involve more of a conversation between teacher and learner as both pursue the end goal of increased learning. If the teacher provides frequent formative assessments throughout the learning process, the student will begin to view his or her competence as something that is continually developing (growth mindset) as opposed to a thing to be achieved or not achieved (fixed mindset). It is critical to cultivate this growth mindset in students. Black & Wiliam (1998) claim that "pupils who come to see themselves as unable to learn usually cease to take school seriously...Such young people are likely to be alienated from society and to become the sources and the victims of serious social problems (p. 141). Repeated low scores on assessments at the end of instruction fail to build student efficacy; providing feedback throughout the learning process will instead help to build students' beliefs in themselves and their potential for learning.

4. The assessment is aligned with the desired learning outcome.

- a. **Explanation/justification:** An assessment should not be given for the sake of giving an assessment. Instead, the assessment should be a means of determining how a student is doing on achieving a desired learning outcome. For this to be done successfully, that desired outcome must be articulated *before* the assessment is created. While this may seem like common sense, it does not always happen in classrooms as teachers get used to moving in a linear fashion; I have certainly been guilty of designing units forwards instead of backwards. *Understanding by design*_by Wiggins & McTighe (2005) advises teachers to first determine the desired results, and only then to think about the evidence students will need to show and "consider up front how they will determine if students have attained the desired understandings" (p. 18).
- b. Evidence: A strong assessment will be clearly linked to the desired learning outcomes because those assessments will be thought of in advance. This outcomes may be a standard or other benchmark, but that assessment should provide direct evidence of that target. If I want my students to be able to use context clues to determine a word's meaning, my assessment had better ask them to do this and not memorize a list of vocabulary words. In order to see this on an assessment, of course, that desired learning outcome must be known, and perhaps even stated on the assessment itself. I try to list the learning target on the top of my assessments to remind students of the knowledge/skill they are trying to demonstrate.

5. The assessment has language accessible for all learners.

- a. Explanation/Justification: Two assessments in two classrooms measuring the same learning outcome may not be identical. The backgrounds, prior knowledge, and needs of the learners must be taken into account in order for the assessment to be accessible for all, particularly in written assessments. Trumbull & Lash (2013) note that in spoken assessments, opportunities are typically readily available for the teacher to clarify or push students beyond their level for growth purposes (p. 10). In my own practice, I have seen students stumble on a task because they were confused by something the assessment was not even measuring. In order to get the clearest picture of a student's understanding, the assessment must provide opportunity for all students to succeed no matter their circumstances.
- **b. Evidence:** In order to make written assessments more accessible, Trumbull & Lash (2013) recommend, "In written assessments, it is advisable to avoid high-level vocabulary not related to the learning goal being assessed, eliminate complex syntax, and avoid the passive voice" (p. 10). As they go on to point out, students who stumble over language, be they English language learners or not, are doubly penalized on an assessment if language is a barrier (pp. 10-11). A student who knows the content or has the skill being assessed may not demonstrate that understanding if the language gets in a way. Therefore, the assessment must be written in clear language accessible to all students in the classroom.

6. The assessment includes a component for meaningful self-assessment.

- **a.** Explanation/justification: Assessment is often viewed as something handed from the teacher to the student: a one-way street. An effective assessment should incorporate self-assessment from the student in order to shift the ownership of learning away from the teacher and toward the learner. Shepard asserts that a teacher who shares this responsibility with the student "gains greater student ownership, less distrust, and more appreciation that standards are not capricious or arbitrary" (p. 12). Black & Wiliam (1998) go as far as to claim that self-assessment is "an essential component of formative assessment." Researcher John Hattie (2015), in his most recent evaluation of 1200 meta-analyses, ranked "self-reported grades" as having the third highest effect size on student achievement, behind only collective teacher efficacy and teacher estimates of achievement (p. 82). If students only see assessment as something handed down to them from a teacher, they will view themselves as distant from their learning. Instead, we want students to be active participants, and in order to accomplish this, an effective assessment must directly involve students in monitoring, evaluating, and controlling their own learning.
- b. **Evidence:** An effective assessment must involve a component of self-assessment. The teacher and student should share the responsibility for learning rather than

having the evaluation come solely from the instructor. Black & Wiliam (1998) state that, in order for self-assessment to work, students must have a clear picture of what the learning target is so they can assess themselves effectively (p. 143). Therefore, the instruction and/or assessment must provide a clear description or exemplar of the desired learning. From this, students can compare their own work and make a plan for improvement. An effective assessment should require the student to *do* something rather than only reading a teacher's comments and/or grades.

7. The criteria for good performance is clearly articulated and communicated to the learner.

- a. Explanation/Justification: In order for learners to work toward closing the performance gap as described in criterion #7, they must have a clear understanding of what they are working toward. In their 2012 study of 32 middle school teachers, van den Bergh, Ros, & Beijaard found that despite its importance, "teachers explicitly related the students' performance to a learning goal in less than 5% of the teacher-student interactions (p. 355). Strengthening the connection for students between how they are doing and where they are going is key in improving learning (Hattie & Timperley, 2007, p. 90). Verbal descriptions and/or written rubrics are often used to convey expectations, but Nichol & Macfarlane-Dick (2007) claim this is not enough to clearly articulate complex concepts to students. A key recommendation they offer is to include exemplars along with the verbal/written descriptions: "Exemplars are effective because they make explicit what is required, and they define a valid standard against which students can compare their work" (Nichol & Macfarlane-Dick, 2007, pp. 206-07). When a learner completes an assessment, he must have a clear understanding of what a good performance of that assessment looks like, and a strong assessment will go above and beyond to make this clear. I have seen exemplars be valuable in my classroom when I have used them, but I have to admit that I sometimes struggle to make the time to do this. Doing assessment well requires extra effort and work, but our readings remind me how crucial this work is.
- **b. Evidence:** To fulfill this criterion, an assessment should include a clear description of the performance goal, such as a rubric. In addition, as Nichol & Macfarlane-Dick (2007) recommend, more must be done so that the learner has a clear target at which to aim. This will most likely take the form of exemplars, although there may be other ways to achieve this.

8. The assessment includes a clear opportunity for effective feedback from the instructor.

a. **Explanation/Justification:** Any assessment serves as a kind of feedback in that the learner will receive information about his or her understanding. Research

- shows, however, that if this feedback is only communicated by a grade or even if a grade is included along with other feedback, the learning stops. As cited in Hattie & Timperley (2007), R. Butler (1988) showed that "feedback through comments alone led to learning gains, whereas marks alone or comments accompanied by marks or giving praise did not" (p. 92). The research seems to show rather clearly that feedback (and there is much research on what exactly constitutes effective feedback), rather than grades is what will help students complete that learning cycle. Therefore, a strong assessment must provide a clear opportunity for teachers to leave this feedback. This feedback could take many forms and is not limited to traditional pen-and-paper comments.
- **b. Evidence:** Although the quality of the feedback itself could be an entirely separate study, in order to facilitate this critical part of the learning process, an assessment must contain a place for the instructor to easily communicate this external feedback. Room for annotations on the paper or the use of a technology platform with an annotation component are two methods that may be used. Since research shows that learning halts when a grade appears, there should be no space for a grade on the assessment. If a grade is used, it should only be communicated after feedback has been received *and* action has been taken upon that feedback, so there is no need to write a grade on the assessment itself since the learning should continue.
- 9. The assessment allows learners to "close the performance gap" (Nichol & Macfarlane-Dick, 2007, p. 206).
 - a. Explanation/Justification: Once students have received feedback from the assessment, something must be done to either reflect upon the feedback they have received and/or work toward closing the gap between the goal and their work. Ramaprasad (1983) defines feedback as "the information about the gap between the actual level and the reference level of a system parameter which is used to alter the gap in some way" (p. 4). An effective assessment should function as a type of feedback in this regard, as it should shed light on where a student is in relation to the learning goal. Thus, working toward closing this gap is a critical piece of the learning process. Nicol & Macfarlane-Dick (2007) identify two key ways for students to work toward closing this performance gap: "supporting students while engaged in the act of production of a piece of work" and "providing opportunities to repeat the same 'task-performance--external feedback cycle' by, for example, allowing resubmission" (p. 213). While the first of these two strategies will likely occur before the assessment, the second recommendation should be a key component of the assessment itself. To complete the learning cycle, students must be allowed the opportunity to do something with

- the feedback they have received via the assessment, and a strong assessment would make that explicit.
- **b. Evidence:** While the best evidence of this criterion might be seen in the classroom in the days preceding and following the assessment, an assessment could still promote the idea of closing the learning gap. Along with the directions for how to complete the assessment, the instructor could include a note to students that they will be permitted to resubmit or reassess on the learning target. There might also be a clear place on the assessment that requires students to take some sort of action with the feedback they will receive, such as a place to respond to a comment or complete a similar problem.

10. The assessment incorporates meaningful technology.

- a. **Explanation/Justification:** This criterion is especially challenging for me teaching in a high-poverty rural district with limited access to technology both in school and for my students at home. According to Leu, Kinzer, Coiro, Castek, & Henry (2004), the struggles of my teaching environment make the issue of technology all that more important. Technology is changing the very definition of literacy so quickly that we can only guess as to the kinds of skills and thinking our students will need in the coming years. However, in districts where access to technology is a challenge, teachers are less likely to incorporate it into their instruction and assessments, whereas teachers in districts with prevalent technology are more likely to utilize it (Leu et al., 2004). As a result, "students in our poorest schools become doubly disadvantaged; they have less access to the Internet at home, and schools do not prepare them for new literacies at school" (Leu et al., 2004, p. 1169). The kinds of technology and their applications to assessments are plentiful and continuing to expand. Creating effective assessments is often a daunting and complex task for instructors, but technology can help, as noted by Quellmalz (2013): "Technology-based resources can help teachers overcome many of the design and practical limitations of implementing classroom-based formative assessment practices" (pp. 3-4). Due to the ways it can help lighten teachers' workloads and the benefits it has for students, technology should be a regular part of assessments in a world becoming increasingly digital.
- b. **Evidence**: Technology and assessment have moved far beyond a basic Microsoft Word document. Teachers can use resources such as online databases to generate standards-aligned assessments (Quellmalz, 2013, p. 4). Online annotation tools can help both students and teachers develop creative annotations, be they written, verbal, or video. Opportunities abound for teachers to incorporate technology into their assessments, and the benefits are clear. An effective assessment would find some way to use technology to enhance the learning and better prepare the student for the literacy demands of the 21st century.

References

- Black, P., & Wiliam, D. (1998). Inside the black box: Raising standards through classroom assessment. *The Phi Delta Kappan*, 80(2), 139-148.
- Butler, R. (1988). Enhancing and undermining intrinsic motivation: The effects of task-involving and ego-involving evaluation on interest and involvement, *British Journal of Education Psychology*, 58, 1-14.
- Hattie, J. (2015). The applicability of visible learning to higher education. *Scholarship of Teaching and Learning in Psychology*, 1(1), 79-91.
- Hattie, J. & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, 77(1), 81-112.
- [Hawker Brownlow Education]. (2013, July 17). What is Understanding by Design? Author Jay McTighe explains [Video File]. Retrieved from https://www.youtube.com/watch?time_continue=145&v=d8F1SnWaIfE
- Leu, D., Kinzer, C., Coiro, J., Castek, J., & Henry, L. (2004). New literacies: A dual-level theory of the changing nature of literacy, instruction, and assessment. Adapted from "Toward a theory of new literacies emerging from the Internet and other informational and communication technologies." In R.B. Ruddell & N. J. Unrau (Eds.), *Theoretical models and processes of reading* (pp. 1570-1613). Newark, DE: International Reading Association.
- National Governors Association Center for Best Practices (2010). *Common Core State Standards English language arts*. Retrieved from http://www.corestandards.org/ELA-Literacy/
- Nicol, D. & Macfarlane-Dick, D. (2006). Formative assessment and self-regulated learning: A model and seven principles of good feedback practice. *Studies in Higher Education*, 31(2), 199-218.
- Ramaprasad, A. (1983). On the definition of feedback. *Behavioral Science*, 28(1), 4-13.
- Quellmalz, E. (2013). *Technology to support next-generation classroom formative assessment for learning.* San Francisco: WestEd.
- Shepard, L. A. (2005). Linking Formative Assessment to Scaffolding. *Educational Leadership*, 63(3), 66-70.
- Shepard, L. (2000). The role of assessment in a learning culture. *The Journal of Education*, 189(1/2), 95-106.
- Trumbull, E. & Lash, A. (2013). *Understanding formative assessment: Insights from learning theory and measurement theory*. San Francisco: WestEd.
- van den Berg, L., Ros, A., & Beijaard, D. (2012). Teacher feedback during active learning: Current practices in primary schools. *The British Journal of Educational Psychology*, 83(2), 341-362.
- Wiggins, G. P., & McTighe, J. (2005). *Understanding by design*. Alexandria, VA: Assoc. for Supervision and Curriculum Development.