



Authentic Assessment

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Introduction

Traditional assessment has placed an emphasis on efficient tasks and tests that are perceived as demonstrating the student's educational abilities. Authentic assessment has become increasingly popular, as a perception has grown that there is a need for more holistic approaches to evaluating students. Authentic assessment moves beyond learning by rote and memorization of traditional methods and allows students to construct responses. Authentic assessment captures aspects of students' knowledge, deep understanding, problem-solving skills, social skills, and attitudes that are used in a real-world, or simulation of a real-world situation. Authentic assessments set meaningful and engaging tasks, in a rich context, where the learner applies knowledge and skills, and performs the task in a new situation. Authentic tasks help students rehearse for the complex ambiguities of adult and professional life.

For example, to assess students' letter writing skills authentically, the teacher has students write a letter to a friend or relative. This task is accompanied by a rubric of agreed-upon criteria related to the course outcomes. Students and/or the teacher construct the rubric. Exemplars help students to understand the criteria and to meet expectations. The important point is that the students clearly understand the target/criteria *before* they do the assessment task.

Traditional assessment, such as a spelling test, relies on directed tasks and efficient means to assess discrete knowledge. In the authentic letter writing assessment activity, while spelling might be deemed to be *one* important criterion, it is weighted according to its value in that particular context. It might be valued as less important than the letter content, or formatting. Each type of assessment depends on its purpose.

The move towards authentic assessment, according to Wiggins* (1990) is designed to:

1. make students successful learners with acquired knowledge
2. provide students with a full range of skills (e.g., research, writing, revising, oral skills, debating, and other critical thinking skills)
3. demonstrate whether the student can generate full and valid answers in relation to the task or challenge at hand
4. provide reliability by offering suitable and standardized criteria for scoring such tasks and challenges
5. give students the chance to 'rehearse' critical thinking in achieving success in their future adult and professional lives
6. allow for assessment that meets the needs of the learners by giving authenticity and usefulness to results while allowing students greater potential for improving their learning and teachers more flexibility in instruction

*Wiggins also calls these "messy" real-world tasks (1990, p. 220).

The debate over assessment goes to the heart of how we teach and what the desired outcomes are. This synopsis attempts to provide a brief examination of some of the fundamental issues at stake and how best to address them.

Key Findings

1. Education must be informed by critical thought and applied knowledge

A basis for the increased role of authentic assessment in classroom use is the belief that education is not simply a matter of memorization but must be informed by critical thought and connected and applied knowledge. Campbell (2000) terms this ‘authentic education’, which is based on performance and reality. Assessment designed to measure such ‘valid’ knowledge can be termed authentic.

2. Authentic assessment allows for measuring meaningful and valid tasks

Authentic assessment can be a learning experience used in the context of students working on problems, projects, or products that genuinely engage and motivate them to do well. If students are not fully engaged in the assessment, it is less likely that any resulting inference will be valid. Ewing (1998) stresses that traditional assessments are limiting due to the following factors: (1) they establish what is taught; (2) their inflexibility reduces possible content; (3) they tend to constrict learning to ‘multiple choice’; (4) the results are open to possible misuse and misunderstanding. Authentic assessment allows for directly measuring student achievement on important, appropriate tasks through active and flexible learning methods. Authentic assessments can be constructed for such things as group or individual projects, lab experiments, oral presentations, demonstrations, performances, assignments, journals, essays, reports, literature discussion groups, reading logs, self-assessment, peer assessment, and assessment of cooperative learning.

3. Authentic assessment allows for learner-specific evaluation

Traditional assessment is often criticized for focusing on the disconnectedness between the limited range of skills taught in the classroom and what the student will face in the ‘real world’. The ways in which teachers evaluate students is open to criticism on these grounds, as lacking validity and reliability. Authentic assessment provides learner-specific evaluation, which addresses these issues. Prestidge and Williams Glaser (2000) provide examples of assessment tools that measure the full range of student abilities, specifically in multimedia and group projects.

4. Self-assessment is built into authentic assessment tasks

Self-assessment asks students to examine their strengths and weaknesses and to set their own goals to further their learning. When students make choices in setting goals about their learning, achievement can increase; when choice is absent, achievement can decrease. “We must constantly remind ourselves that the ultimate purpose of evaluation is to have students become self-evaluating” (Costa & Kallick, 1992).

5. There are many types of authentic assessment tools

Many researchers advocate an increased use of authentic assessment tools. Authors such as Karge (1998), Morris (2001), and Prestidge and Williams Glaser (2000) describe a variety of authentic assessment tools that are intended to increase students' engagement and make learning more relevant. These include: (1) role play and drama; (2) concept maps; (3) student portfolios; (4) reflective journals; (5) utilizing multiple information sources; (6) group work in which team members design and build models. Authentic assessment provides a measure by which student academic growth can be gauged over time while capturing the true depth of student learning and understanding. It moves beyond the practices of traditional tools and tasks and allows for a greater expression of students' abilities and achievements.

6. Authentic assessment is criterion-referenced, as opposed to norm-referenced

Criterion-referenced assessments are designed to compare students' performance against learning task standards. By contrast, norm-referenced tests are designed to compare a student's performance against that of other students. Criterion-based standards are necessary to maintain authenticity (Tanner, 2001).

7. Assessment and evaluation are not the same thing

Moore (1998) attempts to clarify terminology used to determine the difference between assessment and evaluation. Assessment is defined as a method for following a student's advancement and demands the participation of the learner. Formative assessment employs a variety of approaches in a variety of contexts. It is done in an informal, sustained way to help students with their learning, and help teachers improve their teaching. In addition, it can be used for diagnostic purposes to provide immediate, meaningful feedback. Summative assessment is a formal assessment done at the end of units of learning for grading purposes primarily, and secondly, for providing learning and achievement feedback. Evaluation is seen as making a judgement about a student's advancement and can include self-evaluation. Teachers must develop plans for following students' progress while ensuring appropriate data gathering methods are employed that allow for evaluation through grading and percentages of students achieving standards. Both are important in understanding student outcomes.

8. Authentic assessment must be rooted in authentic achievement to ensure that what is measured is desired learning.

Understanding that learning is complex, involving multiple levels of relationships between knowledge and social interaction, authentic assessment attempts to integrate this complexity. Validity and context, according to Cumming and Maxwell (1999), are the major requirements of this new concept of assessment. However, the term 'authentic assessment' is open to a variety of interpretations. Cumming and Maxwell analyze the progress of this movement. They trace its origins to the idea of authentic achievement, which had its basis in the following criteria: (1) knowledge production as opposed to reproduction; (2) enquiry based on a previously developed knowledge base, profound and thorough understanding, and integration of knowledge in new ways; (3) value beyond mere assessment – a value that is personal and meaningful to the learner. Authentic achievement is meant to allow for the creation of higher thinking and problem solving skills that are useful to both the individual and society in general. Authentic assessment, without due diligence to the learning that is desired or expected, may not be authentic at all.

9. Weaknesses of authentic assessment must be recognized and addressed

Ewing (1998) sounds a note of caution about authentic assessment. Several factors that must be taken into consideration: (1) authentic assessment may not be appropriate in all cases; (2) authentic assessments must be credible, publicly supported, and legally acceptable; (3) expectations may be too high; (4) generalizing from authentic assessments may become unrealistic as the number of tasks required can become impractical; (5) cost and inefficiencies in developing and implementing such assessment tools may become too high (both in terms of money and time). From this discussion Ewing concludes that authentic assessments will not replace traditional assessment methods but that there is a future for such methods, granted that conditions are right and the problems with developing such methods are addressed.

10. There is still a place for traditional assessment methods

Researchers point to many limitations of authentic assessment and its possible pitfalls (Tanner, 2001). To secure a fair and complete picture of a student's performance, teachers should use a variety of strategies over a period of time and in different situations. A balanced assessment program includes multiple assessment strategies that are aligned with specific learner outcomes so that students can demonstrate what they understand, know, and can do. No one method or strategy of assessing student performance is sufficient as each assessment task has advantages and disadvantages. The key to meaningful assessment is to match student learner outcomes with an appropriate assessment strategy. The first and most important principle of any assessment is fairness. If assessment is fair, then validity and reliability are more likely.

Suggestions for Teachers

1. Follow the *Principles for Fair Student Assessment Practices in Education for Canada*: http://www.education.ualberta.ca/educ/psych/crame/files/eng_prin.pdf
2. To plan meaningful and focused units of learning, first, *identify desired results*. General Learner Expectations, the “big ideas”, enduring understandings, essential questions, and knowledge, skills, and attitudes (KSAs) should all be explicit. Second, *determine acceptable evidence of student learning* by designing tests, performance assessments, and rubrics. Next, *plan learning experiences and instruction*. Attend to lesson plan activity sequences, transitions, strategies, resources, and materials. Last, assess learning through a variety of sources.
3. Use a variety of meaningful and engaging assessment opportunities: traditional – to capture *breadth* of knowledge, and authentic – to capture *depth* of knowledge and understanding. This balance of assessment opportunities will help portray a “fair and complete picture” of the students.
4. Provide students with a rubric of agreed-upon criteria related to the course outcomes *before* undertaking assessment tasks. Provide exemplars of what work looks like for each criterion.
5. Test the teacher and student-constructed rubrics on a sample of student work initially to improve validity and reliability. Make adjustments if necessary, and then use the revised rubric with confidence.
6. Keep in mind that “Not everything that counts can be counted, and not everything that can be counted, counts” (Albert Einstein).
7. Align assessment tasks with instruction that reflects the *Alberta Program of Studies*.

8. Try to view assessment as a celebration of learning. Through self-assessment the student identifies his or her strengths and weaknesses and, together with the teacher, sets new goals to improve learning and performance. To discover where mistakes are made and ways to fix them is as much a celebration as it is an acknowledgment of strengths for use in further growth.
9. Give students choice in their assessment tasks where appropriate, (e.g., writing a letter to a friend, family, or a fantasy person). When students are given choice, they engage more deeply in the assessment activity, and their results are more likely to provide valid inferences.
10. Give students the opportunity to make mistakes in their assessment. Mistakes provide feedback they can use to adjust what they are doing. However, if students' mistakes are identified only by others, and feedback is limited to marks or letters, students are less likely to know what to do differently the next time.
11. View formative assessment as a way to give descriptive feedback to improve learning and to have students think critically about what they know and can do.

Terms useful to know

The terms *evaluation*, *assessment*, and *test* often are used interchangeably. Badger (1992) offers the following to distinguish among them:

- A **test** is a measuring tool used in an assessment approach.
- **Assessment** is a process of gathering evidence of what a student can do, and provides feedback on a student's learning to encourage further development.
- **Evaluation** is the process of interpreting the evidence and making a judgment of a performance to make informed decisions, such as assigning a grade or promoting a student to a higher performance level.

Briefly, “*Tests* are used in the process of *assessing* students' knowledge to make judgments, or *evaluations*”. (Badger, 1992, p. 7).

References & Bibliography

Badger, E. (1992). More than testing. *Arithmetic Teacher*, 39(9), 7-11.

Chapman, C. (1990). *Authentic writing assessment*. ED328606

Gives examples of how authentic writing assessment can be implemented in curricula. Illustrates how such assessment should be integrated across subjects rather than restricted to writing as a subject.

Costa, A. L., & Kallick, B. (1992). Reassessing assessment. In A. L. Costa, J. A. Bellanca, & R. Fogarty, (Eds.), *If minds matter: A forward to the future, Volume II* (pp. 275-280). Palatine, IL: IRI/Skylight Publishing.

Drake, F. D. (1997). *Using alternative assessments to improve the teaching and learning of history*. ED412170

Traditional assessment needs to be supplemented by new measures as they do not provide intellectual challenge or stimulation in the study of history. Alternative assessments can improve both the teaching and learning of history by allowing for greater communication and analytical skills while providing in-depth understanding of historical themes.

Nickell, P. (1993). *Alternative assessment: Implications for social studies*. ED360219

Describes the implications that the growth of alternative assessment has for social studies. Nickell argues for revision of the social studies curriculum, instructional practices, and integration of assessment with instruction.

Pandey, T. (1990). *Authentic mathematics assessment*. ED354245

Suggests ideas for authentic assessment strategies in the mathematics curriculum. Illustrates how well authentic assessment can meet the needs of a mathematics framework that focuses on conceptualization and analytical skills. Describes authentic assessment in relation to more traditional mathematics assessment tools.

Wiggins, G. (1990). *The case for authentic assessment*. ED328611

Argues the case for authentic assessment persuasively and passionately. This paper presents a definition of authentic assessment and offers a rationale for it. It argues against criticisms of cost, time, and public mistrust. Wiggins claims that without authentic assessment practices, students are at risk of being ignored by conventional testing methods.

Additional Readings for AISI Coordinators and Teachers

Alberta Assessment Consortium. (1997). *A framework for student assessment*. Edmonton, AB: Author.

Alberta Assessment Consortium. (1999). *A framework for communicating student learning*. Edmonton, AB: Author.

Alberta Assessment Consortium. (2000). *How to...develop and use performance assessments in the classroom*. Edmonton, AB: Author.

Alberta Assessment Consortium. (2001). *Smerging data: Grading...more than just number crunching*. Edmonton, AB: Author.

- Alberta Assessment Consortium. (2003). *Refocusing: Looking at assessment for learning*. Edmonton, AB: Author.
- Black, P. & Wiliam, D. (1998). *Inside the Black Box: Raising Standards through Classroom Assessment*. Retrieved Oct. 21, 2005, from <http://www.pdkintl.org/kappan/kbla9810.htm>
- Black, P., Harrison, C., Marshall, B., Wiliam, D. (2003). *Assessment for learning*. New York: Open University Press.
- Burke, K. (1999). *The mindful school: How to assess authentic learning* (3rd ed.). Arlington Heights, IL: Skylight Training and Publishing.
- Campbell, D. (2000). Authentic assessment and authentic standards [Electronic version]. *Phi Delta Kappan*, 81, 405-407.
- Cumming, J. J., & Maxwell, G. S. (1999). Contextualizing authentic assessment [Electronic version]. *Assessment in Education*, 6, 177-194.
- Davies, A. (2000). *Making classroom assessment work*. Merville, BC: Connections.
- Ewing, S. C. (1998). Alternative assessment: popularity, pitfalls, and potential [Electronic version]. *Assessment Update*, 10, 1-2, 11-12.
- Gronlund, N. E., & Cameron, I. J. (2004). *Assessment of student achievement*. Toronto, ON: Pearson Education Canada.
- Guskey, T. R. (2003). How classroom assessments improve learning. *Educational Leadership*, 60(5), 6-11.
- Karge, B. (1998). Knowing what to teach: Using authentic assessment to improve classroom instruction. *Reading & Writing Quarterly*, 14, 319-331. Retrieved May 19, 2004 from EBSCO database.
- McMillan, J. H. (2001). *Classroom assessment: Principles and practice for effective instruction* (2nd ed.). Toronto, ON: Allyn & Bacon.
- McTighe, J., & Wiggins, G. (1998). *Understanding by design*. Alexandria, VA: Association for Supervision and Curriculum Development.
- McTighe, J., & Wiggins, G. (1999). *Understanding by design: Handbook*. Alexandria, VA: Association for Supervision and Curriculum Development.
- McTighe, J., & Wiggins, G. (2004). *Understanding by design: Professional development workbook*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Moore, R. A. (1998). Helping teachers define and develop authentic assessment and evaluation practices [Electronic version]. *Assessment Update*, 10, 3-5.
- Morris, R. V. (2001). Drama and authentic assessment in a social studies classroom. *Social Studies*, 92, 41-44. Retrieved May 19, 2004 from EBSCO database.
- Oosterhof, A. (2003). *Developing and using classroom assessments* (3rd ed.). Toronto, ON: Prentice-Hall.

- Paris, S. G., & Ayres, L. R. (1994). *Becoming reflective students and teachers with portfolios and authentic assessment*. Washington, DC: American Psychology Association.
- Popham, W. J. (2002). *Classroom assessment: What teachers need to know* (3rd ed.). Boston: Allyn and Bacon.
- Prestidge, L. K. & Williams Glaser, C. H. (2000). Authentic assessment: Employing appropriate tools for evaluating students' work in 21st-century classrooms [Electronic version]. *Intervention in School & Clinic*, 35, 178-182.
- Stiggins, R. (2001). *Student-centered classroom assessment* (3rd ed.). Upper Saddle River, NJ: Merrill Prentice Hall.
- Tanner, D. E. (2001). Authentic assessment: A solution, or part of the problem? *High School Journal*, 85, 24-29. Retrieved May 19, 2004 from EBSCO database.
- Tombari, M., & Borich, G. (1999). *Authentic assessment in the classroom: Applications and practice*. Toronto, ON: Prentice-Hall.
- Weber, E. (1999). *Student assessment that works: A practical approach*. Boston: Allyn and Bacon.
- Wiggins, G. P. (1993). *Assessing student performance: Exploring the purpose and limits of testing*. San Francisco: Jossey-Bass.

Some Useful Internet Sites

Canadian

<http://www.aac.ab.ca/home.html>

<http://www.2learn.ca>

United States

<http://www.ncrel.org/sdrs/areas/as0cont.html>

<http://jonathan.mueller.faculty.noctrl.edu/toolbox/whatisit.html>