

Varieties of Authentic Assessment

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INTRODUCTION

The need for effective assessments has been recognized since the earliest days of public education. Student testing provides rationales and support for many activities, including instructional feedback, system monitoring, appropriate selection and placement of students, and certification of skills (U.S. Congress, Office of Technology Assessment, 1992). With the growing recognition that learning is an individual accomplishment and that learning takes place in context, traditional testing methods need to be supplemented to accurately assess achievement (Brown, Collins, & Duguid, 1989; Eisner, 1999). Authentic assessments are designed to accurately reflect the real world situations in which the skills and knowledge that students developed would be applied. Although there are a variety of authentic assessment methods, each method encourages linkages between the classroom experience and real world applications. This does not mean that traditional forms of testing are obsolete, rather that these methods should be supplemented by information gathered from more situational methods.

BACKGROUND

With the advent of the scientific management movement, evaluation entered a new era of sophistication (Taylor, 1911; Tyler, 1983). The social purposes of educational testing shifted from interest in the achievement of an individual to interest in the achievement of groups. This system tended to ignore differences between individual and group achievements in favor of a standardized score which all students were expected to meet or exceed. Factors such as testing bias due to cultural factors were not considered in the system. It would take the intervention of the Supreme Court in 1967 in *Hopson vs. Hansen* to recognize that using testing to sort students created a bias in the educational system since standardized tests were normalized only on middle-class Caucasian students.

Assessment systems took on two roles. Since effective assessment served student needs as well as the needs of the educational system, traditional paper and pencil testing methods were heavily criticized and considered less than adequate as the sole testing tool in the educational system (Wiggins, 1990). The concept of authentic achievement developed in response to this need and the first use of this term is generally credited to D. Archbald and F. Newmann in 1988 (Terwilliger, 1998). Authentic assessment is an evaluation method that requires a student to competently perform a task in conditions as close as possible to the conditions that he or she will face outside of the educational system. These methods have steadily gained acceptance in the last two decades despite some significant concerns in the testing community.

These concerns are related to the validity and reliability of authentic assessments. Since authentic assessments evaluate learning in context, how well that learning transfers to other contexts is one method of judging the quality of authentic assessment. The effectiveness of academic and experimental learning approaches on vocational education were found to be context specific (Parnell, 1999; Stavenga de Jong, Wierstra, & Hermanussen, 2006). Neither the contextual approach nor more traditional classroom presentation methods have been proven superior. It may be that different skills require different learning contexts. Assessment is understood to be relational; the context of the assessment affects the quality of the assessment (Fox-Turnbull, 2006). For this reason, some researchers propose that authentic assessment methods are as much an instructional method as an assessment method and that their effectiveness should be judged as part of the whole program rather than as a separate element (Van der Vleuten & Schuwirth, 2005).

In response to the larger debate concerning the role and effectiveness of authentic experiences, standards are proposed for authentic assessment. In one example, Linn, Baker, and Dunbar (1991) examined the need for authentic assessment criteria and proposed eight factors for consideration:

- Consequences (intended and unintended and time spent on perfecting artifacts)
- Fairness issues such cultural bias and scoring variation
- Transfer and generalizability as a measure of reliability
- Cognitive complexity
- Content quality and completeness
- Meaningfulness of the required tasks
- Cost

The majority of these standards mirror traditional evaluation standards. The identification of the consequences of assessment as having an effect on authentic learning environments highlights a particular issue in authentic assessment. Elements such as the time spent perfecting portfolios can expand beyond the original intent of the assignment. Unfamiliar assessments increase the likelihood that students and teachers will misinterpret the purpose of the assessment. Since the purpose of authentic assessment is to mirror real world applications, the identification of such consequences is particularly important.

Beyond validity and reliability issues, authentic assessment appears to be difficult to use on a large scale. Torrance (1993) found that large scale authentic assessment significantly increased teacher work loads. Teachers treated the assessment materials as a separate instructional activity to be added to existing materials and many of the materials were too complex for the teachers to easily implement. This implies that teachers need additional training to effectively integrate these assessments into their existing programs.

As asserted by Newman, Brandt, and Wiggins (1998), authentic assessments focus on disciplined inquiry and value beyond success in school and this is a different perspective than traditional assessment methods. It may be that authentic assessments can be effectively combined with traditional approaches to enhance learning. Hybrid models that combine required content with authentic methods and assessments have significantly raised standardized test scores in two Chicago high schools serving low income urban students (Ferrero, 2006). Test formats such as multiple-choice testing, short answer testing, item completion, and matching still have a significant place in the educational testing system. The first step in implementing an effective authentic assessment program is to recognize

when traditional testing is more appropriate and when an authentic assessment would be preferable.

AUTHENTIC ASSESSMENT METHODS

The first step in selecting any evaluation method is to refer to the objectives for the instructional element or elements to be evaluated. There are numerous taxonomies for objectives, many of which are based on the work of Bloom (1956), Krathwohl, Bloom, and Bertram, (1973), and Simpson (1972). Objectives were divided into three categories, cognitive, affective, and psychomotor that were called domains. Each of these categories were further divided into subcategories ranked in order of complexity which were called levels.

This categorization of objectives is important because it highlights the degree of expertise that the student should achieve in the final product. For example, if the goal of the activity is for the students to list the Presidents of the United States in order, that is a lower level cognitive task. Such an expectation would not require anything beyond a basic, short answer exam as an assessment tool. If the objective of the lesson is to develop an understanding of the consequences of the election of Abraham Lincoln, an objective style assessment may not be inadequate to assess the competency. The format of the assessment would prohibit the collection of content linkages.

In the larger debate, a proponent of authentic assessment would object to an exercise as simple as listing the Presidents of the United States in order. Since there is no apparent purpose for this activity, it would not be considered an authentic task. This does not mean that all rote learning is valueless and that all objective style testing should be eliminated. Consider the example of nursing education; there is a great deal of information about human anatomy, terminology, and appropriate safety protocols that simply must be learned before students can progress to more complex and applied problems. For this reason, it is common in many vocational subjects for students to work through a progression of examinations beginning with simple objective style testing and ending with an authentic assessment such as the performance of a procedure or the creation of a project. It is unrealistic to expect a student to perform an authentic task well when they do not have the basic contextual background for the experience.

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