

CHAPTER 6: USING PERFORMANCE-BASED MEASURES

While tests and surveys remain the most popular assessment instruments, many departments are beginning to recognize the value of assessment that is based on student activities. This chapter explores different types of performance-based assessment activities and discusses the means to maximize their effectiveness.

Topics Presented

- Definition of performance-based assessment
- Appropriate use of performance-based assessment
- Advantages and disadvantages of performance-based assessment
- Types of performance-based assessment
- Planning performance-based measures
- Analyzing performance-based data

Definitions

Performance-based assessment is the process of using **student activities**, rather than tests or surveys, to assess skills and knowledge. Class assignments, auditions, recitals, and projects, while intended to evaluate the individual student, can be reviewed as a whole (using all or a sample) to evaluate a course, program, or college. These activities are often used in conjunction with tests to provide a complete picture of student skills and abilities. Critics of testing point out that tests, particularly multiple-choice tests, do not provide sufficient opportunity for students to think through what they are doing or to want to do their best. “Portfolios and other forms of performance-based assessment, on the other hand, *invite* the student to show his or her ‘best’ work” (Belanoff & Dickson, 1991, p. xvi).

Performance-based measures should be used:

- when activities can be linked directly to the curriculum.
- in academic programs that develop complex, integrated skills.
- when the focus of the academic program is on the creation of products or performances.

Performance-based measures should not be used:

- where there are limitations of time and/or scope.
- when other assessment techniques such as surveys, focus groups, or tests can better serve the needs of the assessment.
- when statistical analysis is required.
- when there is not widespread faculty and/or administrative support for performance-based assessment.
- when there is not consensus among faculty regarding the objectives, goals, and criteria by which measures will be evaluated.

General Information

Advantages of Performance-Based Measures

- Performance-based assessment builds on daily work (assignments, exams, projects) of students and faculty.
- Performance-based assessment enables faculty to determine student skills and abilities and for students to learn more about how to improve their own skills.
- Performance-based assessment can help faculty determine how to link their teaching to desired learning outcomes.

Disadvantages of Performance-Based Measures

- Performance-based measures are labor intensive. A significant amount of time and care must be set aside for planning and using performance assessment.
- It is not clear that performance-based measures can be generalized to the student population. This lowered level of generalization can affect the perceived validity of the measure.

- Assessment activities that are separate from the daily teaching routine of the department can be perceived as intrusions by students and faculty.

Types of Performance-Based Assessment

Portfolios - examples of student work collected over time

The use of student portfolios has a long history in disciplines such as art and architecture and is rapidly gaining popularity in other areas, particularly in the assessment of writing skills. Portfolios can be used to evaluate individual student progress while allowing a department to take a critical look at overall performance of students in the program. Typical portfolio contents are exams (multiple choice and essay), research papers, essays, projects, and audio/video tapes.

Assessment Center Method - simulation of real-life situations in which student performance is evaluated by expert judges

This assessment method attempts to create a professional situation in which students participate (performance, audition, recital, or exhibit). The activity evaluates individual student performance and provides feedback to the department on the effectiveness of its program.

Planning Performance-Based Measures

The following should be considered when planning performance-based assessment measures (Palomba & Banta, 1999, p. 118):

1. What skills are being examined?
2. What tasks can appropriately demonstrate the skills?
3. What are the criteria for evaluating performances or products?
4. What is a reliable process for rating the performances or products?
5. Who is most appropriate to conduct this assessment, and how can they be trained?
6. How will the results be evaluated?

Analyzing Performance-Based Data

The intended outcomes for the course or program are identified. Then faculty set standards for evaluating portfolio materials or performance measures. Performance-

based assessment is most effective when faculty members agree on the intended outcomes of the course or project, as well as the standards set for the evaluation.

Frequently Asked Questions

Our faculty has determined our outcomes and identified our students. What do we do now?

Aubrey Forrest, Director of Assessment and Educational Measurement at Emporia State University (1990, p. 5), makes the following suggestions for prioritizing outcomes for portfolios that can apply to other forms of performance-based assessment as well.

1. Begin by collecting a representative range of student work, from marginal to outstanding, and determine what learning appears to be taking place and what is not. This can be the basis for a discussion of what the most important intended outcomes ought to be.
2. Identify a group of exemplary students and collect samples of their course work or observations of their performances. Ask the students to describe what experiences in the course were most useful to them. Analyze the interviews and course work.
3. Concentrate on one or more program outcomes for which portfolios or performances seem most useful or appropriate. Some outcomes, such as reading or computational skills, may have been adequately assessed already. Higher-order or more complex outcomes may be more appropriately assessed by a performance-based process.
4. Base the evaluation on an existing official statement of intended outcomes such as the course or program goals and objectives statement. Build assessment around this detailed statement of goals and guidelines.

Should we use the students' best work or choose from a range of grades?

Either is useful, but the department must decide which selection will best suit the department's purpose. Since the students' best will vary, a great deal can be learned about the program from looking at those assignments which earned the highest grades.

What differences exist in these work samples? Why are some students' best works better than others? On the other hand, selecting from a wide range of grades will say something as well. What is failing, average, or excellent work in certain courses or programs? Is there commonality among each of these ranges that gives some clue as to who is doing what kind of work and why?

Who decides which items or projects will be included in portfolios or used for performance assessments?

A decision is made based on the type of assessment to be done. In some cases, faculty members will ask their students to select for their portfolios what they (the students) consider to be their best work. At other times, the instructor will provide a list of class assignments or exams to be included. Departments may even choose to create the portfolios themselves. It may be important to advise students of the purpose of the portfolio review and to keep the focus on the program rather than the individual student.

Topics Reviewed

- Performance-based assessment is the process of using student activities to assess skills and knowledge.
- Performance-based assessment allows faculty to determine student skills and abilities and to help students improve on them.
- Performance-based measures are labor intensive and meant to focus on the program rather than the student.
- The following should be taken into account when designing performance-based assessments:
 - Articulating the skills to be evaluated
 - Designing appropriate tasks to demonstrate the skills
 - Specifying the criteria for evaluating the performances
 - Developing a reliable process for rating performance
 - Training the raters
 - Evaluating the results

- Two popular forms of performance-based assessment are portfolios (a collection of student work over time) and the assessment center method (simulation of real-life situations in which student performance is evaluated by expert judges).

Sources of Additional Information

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