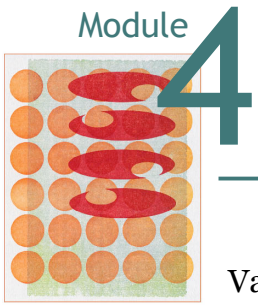


Summary of Key Assessment Concepts

Various forms of student assessment data can provide information to answer inquiry questions related to student learning and to provide instructors with information regarding the learning of their students. Keep in mind the following key concepts regarding student assessments:

- **Use multiple assessments.** Multiple sources of information provide a more accurate and nuanced assessment of student learning goals than can be obtained by any one assessment, as no one assessment can reveal everything that you need to know. This is not to say that multiple assessments are needed for every item that is taught but that multiple assessments are needed for the overall unit or course learning goals.
- **Align the assessment with learning goals.** Use assessments that are appropriate for what you want to know about student learning. Rick Stiggins (2004) organizes classroom assessment techniques into four basic categories:
  - **Selected Response Assessment.** This is traditionally called objective testing and typically involves questions such as multiple choice, true-false, matching and fill-in.
  - **Essay Assessment.** This assessment elicits brief original written responses to questions or topics posed by the instructor. The instructor judges the quality of the response based on a rubric.
  - **Performance Assessment.** Students engage in activities that require them to demonstrate mastery of certain processes or performance skills and/or their ability to create products that meet certain standards of quality.
  - **Personal Communications Assessment.** Instructors can use any personal communication from students that communicates valuable information about the student's achievement.
- **Align the assessment and the purpose for the assessment.** Tomlinson and McTighe (2006) emphasize the importance of knowing what and why you are assessing, and who will use of the results. They specify three types of assessments each of which has a different purpose.
  - **Diagnostic.** Typically administered prior to instruction, diagnostic assessments look at students' prior knowledge, skills, interests, and misconceptions. This information assists the instructor in planning instruction.
  - **Formative.** Administered during the course of a unit, these ongoing assessments provide information on what students are learning at various points through a unit or semester. These assessments may be formal or informal and provide information to guide and adjust instruction.
  - **Summative.** Summative assessments typically assess what students have learned in a unit or course. Unit tests, mid-terms, final exams, culminating projects, portfolios,

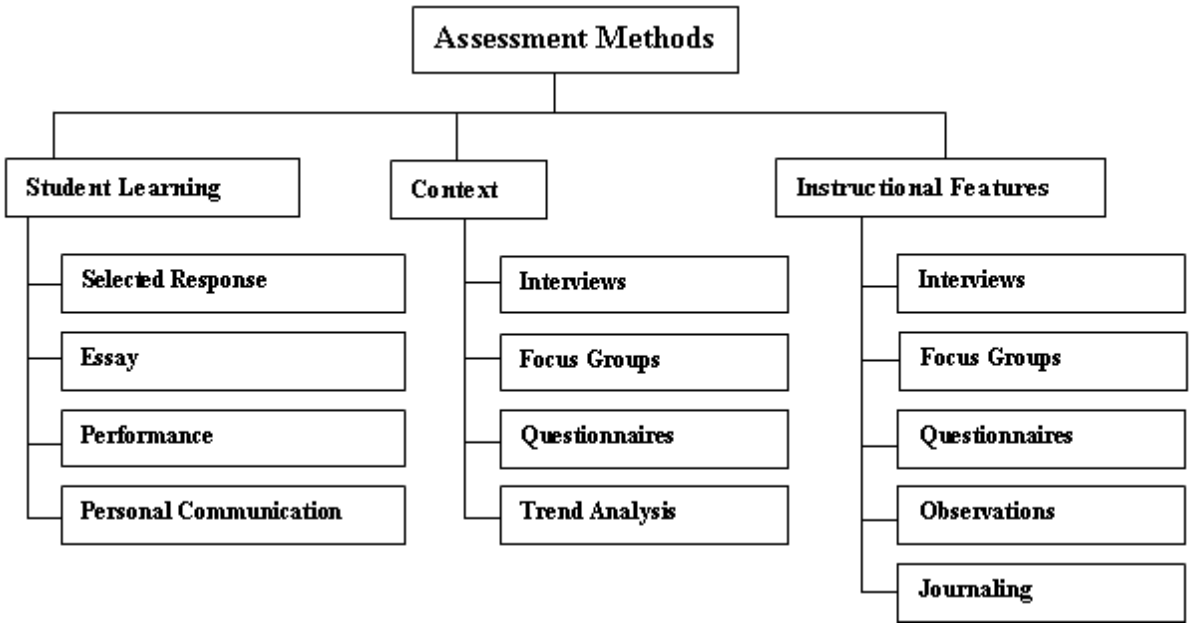
and performance assessments are familiar forms of summative assessments. These tend to be evaluative, result in grades, and often are used as indicators of student achievement.

- **Assess the learning context.** Context assessment refers to gathering data about demographic, social, economic, technological and other factors related to the world in which the students and institution find themselves. It may mean gathering information about needs of employers, career interests of students, social structures of the community, growth projections, and many other factors.
- **Assess instructional features.** The features of the instructional program to assess may include the curriculum being used, its match to the learning outcomes, and the alignment of instructional methods with learning outcomes or current research about effective instructional practices. It also may involve looking at how courses are scheduled and how courses fit together to make up a program.

Assessment Methods

There are numerous and varied ways to conduct the different types of assessments. The following figure gives examples of methods that can be used.

Figure 1 - Assessment Methods



The student learning assessment methods have been touched on above. The tips provided for conducting interviews, focus groups, and questionnaires as data collection methods are useful when considering them for assessments. The following includes brief comments about the three methods that were not addressed in other documents––trend analysis, observations, and journaling.

Observations

Observing a situation may be more useful than having students report on it via questionnaires or interviews. Observations may involve trained observers comparing their perception of a situation to a pre-specified rating scale or a colleague observing a class at the request of an instructor in order to watch for particular actions on the part of the instructor and/or the students.

Rating scales usually have quite detailed written descriptions or pictures that are used to compare to what the observer sees, hears, and touches or in other ways senses. The observer is usually quite knowledgeable of that which they are observing (e.g., someone who is observing a classroom with a focus on instructional methods is familiar with a range of teaching techniques). At times open-ended observation guides are also used so the rater can identify instances of a certain type of general behavior or event.

Classroom observations are often very valuable in evaluative inquiry and action research. For example, an instructor might ask the observer to note the amount of time spent in lecture versus interaction with students or the number of times he/she calls on each student (to see if some students or types of students are favored).

Journaling

Journaling is a reflective activity. Participants in an evaluative inquiry may be asked to write in a journal at certain intervals to capture their current thinking, behaviors, and/or feelings about designated topics. They may be given a specific set of questions to guide their journaling in order to reveal subtle changes occur in their thinking, behavior, and feelings as they are learning and changing.

Typically, the journal is read only by the person who keeps that journal. At certain points, the writer is asked to review his/her journal and provide a summary related to the topic of interest and, if desired, provide some excerpts from the journal. It is important that the writers know that the journal will not be seen by others so they can be very honest and self-revealing. Then when asked to summarize their reflections, they can do so at the level of revelation that they feel is appropriate for the inquiry process.

Trend Analysis

Conducting a trend analysis involves looking at the same or similar data collected over a particular time period. The analysis is designed to look at shifts over time. Data collected about student success, student retention, differences by ethnic group, gender, age, and other variables is often very useful. Quantitative data are most easily analyzed for trends.

Resources on Student Assessment

Websites

1. http://www.assessmentinst.com/. Assessment Training Institute, 317 SW Alder Street, Suite 1200, Portland, OR 97204, Tel: 800-480-3060, Fax: 503-228-3014. Rick Stiggins is the director of this institute.
2. wwwflaguide.org. Field-Tested Learning Assessment Guide for Science, Math, Engineering, and Technology Instructors. This is an excellent source of examples and information specific to classroom assessment in Science, Math, Engineering, and Technology (STEM) disciplines at the postsecondary level. This website provides excellent self-instructional, web-based modules that introduce classroom assessment techniques of value in STEM courses. Each example was written by a college or university instructor who uses the technique.
3. www.ecept.net/purcell/RTOP_full/index.htm.The Reformed Teaching Observation Protocol (RTOP) website has an observation guide for looking at math/science classroom practice to see how it corresponds to the latest in research on teaching techniques. There is an observation form along with video clips of science/math secondary and postsecondary instructors teaching a lesson. You can rate the lessons and then compare your ratings to those of the developers of the materials.

Books

The following book focus on assessment in K-12 but have worthwhile information that can be translated to the community college level.

1. Stiggins, R. (2004). *Student-involved assessment for learning (4th edition)*. Upper Saddle River, NJ: Prentice-Hall, Inc.
2. Tomlinson, C. & McTighe, J. (2006). *Integrating differentiated instruction +understanding by design*. Alexandria, VA: Association for Supervision and Curriculum Development.
3. Wiggins, G. & McTighe, J. (2005). *Understanding by design (2nd edition)*. Alexandria, VA: Association for Supervision and Curriculum Development.

The following four books are focused specifically on post-secondary education.

4. Maki, P. (2004). Assessing for learning: *Building a sustainable commitment across the institution*. Sterling, VA: Stylus.
5. Schuh, J., Upcraft, L., & Associates. (2001). *Assessment practice in student affairs: An applications manual*. San Francisco, CA: Jossey-Bass.
6. Walvoord, B. (2004). A*ssessment clear and simple: A practical guide for institutions, departments, and general education*. San Francisco, CA: Jossey-Bass.

7. Walvoord, B. & Anderson, V. (1998). *Effective grading: A tool for learning and assessment*. San Francisco, CA: Jossey-Bass.

The following book provide more general information about conducting program evaluation.

8. Wholey, J., Hatry, H., & Newcomer, K. (eds). (2004). *Handbook of practical program evaluation*. San Francisco, CA: Jossey-Bass.

Videos

1. Assessment Training Institute. Professional Development Package: *Comprehensive Training Materials for Student-Involved Classroom Assessment*
Note: This comes with 7 videos and 3 books. In addition, there are booklets that match each of the videos.