Measurement, Evaluation, Reporting

Along with identifying outcomes or assessment tasks, the assessment instrument or measure should be selected or developed. Sometimes the measure is an objective score on a task (an average for all students). Responses to surveys can be also quantified using a scale and average ratings. A commonly used instrument for subjective measurement is a rubric. However, qualitative information can also be used, provided it reflects an assessment of student learning and provides evidence that can lead to the enhancement of student learning.

Rubrics specify criteria for classifying products, traits or behaviors into categories that vary along a continuum. In the lowest category, the product, trait or behavior is inadequate or otherwise fails to meet expectations. In the highest category, the product, trait or behavior is exemplary or exceeds expectations. Intermediate categories are varying levels of satisfactory performance. Rubrics explicitly describe the criteria used in each category.
Examples of categories are:
- Developing, Acceptable, Exemplary
- Unacceptable, Competent, Accomplished
- Unacceptable, Marginal, Meets Expectations, Exceeds Expectations
- Novice, Developing, Proficient, Expert
- Weak, Developing, Acceptable, Exceeds Expectations, Excellent

Rubrics are frequently used to assess embedded tasks and portfolios. Advantages of using rubrics include clarification of expectations among faculty and for students, likelihood of reliability and validity, efficiency when assessing complex products, traits or behaviors, and likelihood that faculty can align courses with program outcomes.

a. Student work is gathered
b. Faculty working alone or in groups assess the work. If a group of faculty conduct the assessments, training in the use of rubrics or other scoring systems is important to ensure that it is applied in the same manner. Calibrating among the raters enhances inter-rater reliability (Allen, 2006, pp. 166-179).

Example of rubrics can be found from a number of institutions publishing rubrics on university and college websites.

Analysis of assessment data ranges from statistical data summaries to subjective interpretation of the results to derive meaning concerning a program (Nichols, 1995, p. 50). Assessment is sometimes conducting using a pre-test/post-test design

which is one way to find out if students are learning anything in the program. Students are assessed at the beginning of the program and again at the end of the program. Typically, students perform better at the end of the program than at the beginning for a given task. However, to use assessment information to improve student learning requires comparisons from one time period to another time period. Regardless of the design for gathering assessment data, the most useful comparison is between student performance of one year compared to student performance a year or two later *after* changes to enhance student learning have been implemented.

A clearinghouse for assessment information coordinates assessment efforts more effectively and provides a repository for review by accreditation teams and for accountability purposes (Nichols, 1995, p. 51). A repository facilitates longitudinal comparisons when the platform or software has report-generating capabilities.

Assessment reports should honestly summarize what was learned and should communicate sufficient detail about the assessment so that readers can understand how data were collected and interpreted. The report specifies the outcomes assessed, who participated in the assessment, the sample of students, the data collection procedures, the analytical techniques (statistical methods or content analysis), the findings, interpretation of results and implications for change. Any caveats about the sample or procedures and suggestions for subsequent assessments should be included (Nichols, 1995, p. 213). The key findings of the assessments should lead to changes and improvements in student learning (closing the loop) and should be highlighted in the assessment reports.

Allen, M. J. (2006). *Assessing general education programs.* Bolton, MA: Anker Publishing Company, Inc.

Nichols, J. O. (1995). *Assessment case studies: Common issues in implementation with various campus approaches to resolution.* New York: Agathon Press.