A Brief Guide to Student Learning Assessment

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This brief guide is intended to describe the purpose and main elements of student learning assessment and acquaint the faculty with the vocabulary of student learning assessment.

The Purpose of Student Learning Assessment

The **purpose of student learning assessment** is to provide feedback to the <u>faculty</u> about how well the program curriculum is working to help students achieve the learning goals of the program (see the next paragraph for a definition of program learning goals). In contrast, the purpose of grades is to provide feedback to the student about how well he or she is mastering the content of the course.

The spirit of assessment is continuous improvement. Assessment is not intended to merely provide a "stamp of approval" for the status quo. If all you learn from doing assessment is that the current curriculum is succeeding in helping students achieve the learning goals of the program, you haven't learned as much as you could have from the process.

The Process of Conducting Student Learning Assessment

The process of conducting student learning assessment begins with identifying the program learning goals. **Program learning goals** describe the knowledge, skills, behavior, or attitude students have as a result of completing the program of study. Effective learning goal statements…

- focus on what the student should be able to do, not on what the program does,
- express the goals as knowledge, skills or attitudes,
- identify goals that are observable and measurable,
- use concrete action verbs (e.g., analyze, conduct, summarize, demonstrate).

The more the learning goal statements conform to the above guidelines, the easier these will be to assess.

Assessment measures are prompts that give students the opportunity to demonstrate achievement of one or more learning goals, and generate an artifact that can be evaluated or assessed. Measures can be class assignments, projects, tests, or presentations. In the case of a presentation, the artifact can be the rubric used to evaluate the presentation combined with the scores given.

If there are too few observations to draw meaningful conclusions from the data, consider one of the following: either increase the n by collecting additional student artifacts in subsequent semesters or supplement the student artifacts with indirect measures of student performance, such as interviews with students or faculty. These interviews may help faculty get a sense of how well the curriculum is working to foster student achievement of the learning goals. Documentation of a discussion among faculty of their impressions of how well the curriculum is performing, that identifies areas of perceived weakness and possible ways to address these, would also be an acceptable indirect measure.

Assessment data collection is preferably embedded in one or more courses and involves the administration of a measure (i.e., an assignment, test, etc.) that generates student artifacts which are subsequently evaluated using a rubric for the particular learning goal being assessed. Note: There should be one rubric developed for each learning goal. A ***rubric*** consists of three or more *performance indicators* of learning goal achievement and descriptions of at least two *levels of performance* on each performance indicator.

Figure 1 contains an example of a rubric for written communication skills. The detailed descriptions of each level of performance provide the faculty with the information needed to identify areas of relative weakness in the program curriculum which can be the target of improvement efforts. For example, if students are scoring relatively lower on the nth performance indicator compared with the others, faculty should consider how the curriculum might be changed to help students improve their performance on that indicator.

Best practice dictates that the student artifacts be evaluated by someone other than the course instructor for assessment purposes. This is because the course instructor both knows the individual students and has a vested interest in demonstrating that students are achieving the learning goals of the program, particularly if these coincide with the learning goals of the course. Therefore, the course instructor may not be an objective evaluator. Acceptable evaluators include members of the faculty who are not the course instructor or even students in the course. The important thing is that the evaluators be trained in the use of the rubric so that all the evaluators interpret and apply the rubric in a consistent manner. When using students as evaluators, be sure to strip identifying information from the artifacts before giving these to students to assess.

Faculty are encouraged to consider using the *Outcomes* module within Blackboard to help with the process of assessment, specifically the collection and evaluation of student artifacts. For more information about using Blackboard Outcomes for assessment, contact the Director of Assessment, Carol Emmons (emmons@iit.edu).

Aggregating and Analyzing Assessment Data

Rubric data should be aggregated and analyzed across students *by performance indicator* for a particular learning goal. Resist the temptation to summarize the data by learning goal, as this can mask important differences between different performance indicators. Also note that because most rubrics generate only category-level data, the arithmetic mean is an inappropriate statistic to use to summarize the data.   A better way to summarize categorical data is by generating a frequency distribution of the number or percent of artifacts that score at each level for each performance indicator. If you wish to statistically test for a difference between two or more frequency distributions, the appropriate test would be the *Chi Square* test.

Closing the Loop

Assessment results should be shared with the entire program faculty. Faculty should also be given an opportunity to meet to discuss the results and decide what the results mean in terms of how well the program curriculum is performing and what can be done to improve it. These interpretations,

WRITTEN COMMUNICATION VALUE RUBRIC

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AAC&U Association of American Colleges and Universities

Definition

Written communication is the development and expression of ideas in writing. Written communication involves learning to work in many genres and styles. It can involve working with many different writing technologies, and mixing texts, data, and images. Written communication abilities develop through iterative experiences across the curriculum.

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone 4	Milestones 3	Milestones 2	Benchmark 1
Context of and Purpose for Writing *Includes considerations of audience, purpose, and the circumstances surrounding the writing task(s).*	Demonstrates a thorough understanding of context, audience, and purpose that is responsive to the assigned task(s) and focuses all elements of the work.	Demonstrates adequate consideration of context, audience, and purpose and a clear focus on the assigned task(s) (e.g., the task aligns with audience, purpose, and context).	Demonstrates awareness of context, audience, purpose, and to the assigned tasks(s) (e.g., begins to show awareness of audience's perceptions and assumptions).	Demonstrates minimal attention to context, audience, purpose, and to the assigned tasks(s) (e.g., expectation of instructor or self as audience).
Content Development	Uses appropriate, relevant, and compelling content to illustrate mastery of the subject, conveying the writer's understanding, and shaping the whole work.	Uses appropriate, relevant, and compelling content to explore ideas within the context of the discipline and shape the whole work.	Uses appropriate and relevant content to develop and explore ideas through most of the work.	Uses appropriate and relevant content to develop simple ideas in some parts of the work.
Genre and Disciplinary Conventions *Formal and informal rules inherent in the expectations for writing in particular forms and/or academic fields (please see glossary).*	Demonstrates detailed attention to and successful execution of a wide range of conventions particular to a specific discipline and/or writing task (s) including organization, content, presentation, formatting, and stylistic choices	Demonstrates consistent use of important conventions particular to a specific discipline and/or writing task(s), including organization, content, presentation, and stylistic choices	Follows expectations appropriate to a specific discipline and/or writing task(s) for basic organization, content, and presentation	Attempts to use a consistent system for basic organization and presentation.
Sources and Evidence	Demonstrates skillful use of high-quality, credible, relevant sources to develop ideas that are appropriate for the discipline and genre of the writing	Demonstrates consistent use of credible, relevant sources to support ideas that are situated within the discipline and genre of the writing.	Demonstrates an attempt to use credible and/or relevant sources to support ideas that are appropriate for the discipline and genre of the writing.	Demonstrates an attempt to use sources to support ideas in the writing.
Control of Syntax and Mechanics	Uses graceful language that skillfully communicates meaning to readers with clarity and fluency, and is virtually error-free.	Uses straightforward language that generally conveys meaning to readers. The language in the portfolio has few errors.	Uses language that generally conveys meaning to readers with clarity, although writing may include some errors.	Uses language that sometimes impedes meaning because of errors in usage.

Figure 1. Example of a rubric for written communication.

conclusions, and improvement plans should be documented and incorporated into the annual assessment report. Evaluating the effect of any changes to the curriculum can be the focus of a future assessment cycle.

Sustaining the Process of Assessment

The meeting of program faculty to discuss the assessment results also provides an opportunity for the faculty to evaluate the assessment process itself, and discuss how it can be improved. To fulfill its purpose, the assessment process must be sustainable; to be sustainable it must be relatively simple and straightforward, require minimal effort and be well documented.   To this end, faculty are encouraged to:

- limit the total number of learning goals for a program to 2-5,
- focus on only 1 or 2 learning goals per assessment cycle,
- identify and use courses for assessment that can generate the greatest number of appropriate student artifacts, regardless of whether the learning goal being assessed is expected to be achieved in the course,
- establish and document an assessment plan that details the learning goals to be assessed each cycle, the course(s) to be used to generate artifacts, the rubrics to be used to assess the artifacts the faculty or student evaluators who will perform the evaluation, and the faculty member who will coordinate all these activities. Share the plan with all program faculty.

For more information about assessment, answers to questions you may have, help writing learning goal statements or developing rubrics, or to discuss the specifics of your assessment process, contact the Director of Assessment, Carol Emmons (emmons@iit.edu).