University Assessment Council
Student Learning Outcomes Assessment Framework
September, 2010

Introduction

The Assessment Council at Northwestern University, comprised of faculty representatives from all schools as well as administrators, was charged by the Provost with facilitating a campus-wide effort focusing on the assessment of student learning outcomes. The Council acknowledges that assessment of student learning outcomes is being performed widely across the university. In order to leverage best practices and to identify where there are opportunities for improvement, the Council conducted an inventory of the current assessment efforts across the university. Through the inventory it became evident that units are at different stages of assessment and utilize different approaches to assessment. The goal of the Assessment Council is to provide an assessment framework to be used by units to guide them in their assessment efforts. This document is intended to provide support for units that are at the beginning, intermediate and advanced stages of assessment efforts.

Statement of Assessment Purpose

Northwestern University's varied efforts to engage in assessment activities have multiple purposes. First and foremost, these efforts derive from the position that a systematic approach to assessing the learning outcomes of students is necessary to evaluate and improve upon the quality of learning. Through assessment we are able to learn about our unique strengths and opportunities for improvement. Secondly, assessment efforts are increasingly important for articulating to external entities (e.g., governmental regulators, accreditation agencies, peer institutions, parents and prospective students) the quality of Northwestern's educational programs, which are both curricular and co-curricular. Assessment enables us to express in concrete and often comparable terms the value of our educational programs as a leading institution in higher education.

This assessment framework is designed to serve as a tool to build upon the work that has been done by those with well developed assessment programs to contextualize them within the larger assessment goals and structures of the institution as well as those just beginning to employ more systematic assessment mechanisms, and to help develop and guide those initiatives. The framework should be seen as a resource providing a rough blueprint to be fleshed out according to the specific needs of the program. The groundwork already laid at Northwestern need not be re-created, thus enabling the assessment efforts to begin a few steps further along. How assessment within a unit or program or college links to and furthers the larger goals of the institution will become clearer when it can be placed within this framework.

The framework will focus on student outcomes. To help inform the development of this framework, substantial work has been conducted over the past year to develop an inventory of current student assessment processes utilized by Northwestern University and its schools and college.

Scope

Rather than a centrally controlled and monitored student outcomes assessment process, the Assessment/Accreditation Council has determined that an assessment framework should be developed that will support a systematic, faculty driven process that will help the understanding of the assessment efforts (curricular and co-curricular) that are currently underway across the University. The Northwestern "community" includes the following schools:

- Bienen School of Music,
- McCormick School of Engineering and Applied Science,
- Medill School of Journalism,
- School of Communication,
- School of Continuing Studies,
- School of Education and Social Policy,
- The Graduate School,
- Weinberg College of Arts and Sciences,

as well as the units/programs reporting to the Associate Provost for Undergraduate Education, Student Affairs, and Athletics.

Guiding Principles

Guiding principles serve as a basis of reasoning and action that leads, shows the way, and directs movement. The following principles guide what we do, why we do it, and how we do it.

1. The primary purpose of assessment is the evaluation and the improvement of student learning, not the evaluation of faculty teaching or staff performance.
2. Faculty and departments, given their curricular role and responsibilities, have primary responsibility for the development, implementation, and maintenance of all academic assessment activities.
3. It is the responsibility and purview of each program or department to identify its own assessment procedures, methods, as well as interventions based on the results of its assessment of student achievement.
4. Assessment requires clearly defined objectives and outcomes; evidence collected at the program/unit level will form the most basic unit used for quality and improvement.
5. Assessment requires a feedback loop of assessing, evaluating, taking action, and reassessing to make and track progress.
6. Assessment and the use of assessment results should be attentive to diversity in its many forms and be conducted in a sensitive manner.

Audiences for Assessment

The most important audiences for assessment studies include all those considered "educators" at the university, because the primary purpose of assessment is the improvement of student learning. Those most likely to be interested in assessments are the Board of Trustees, Deans, faculty, and in some units, staff members of the university. Additionally, other audiences such as governmental regulators, accreditation agencies, peer institutions, current and prospective students, parents, and alumni may also find assessment studies useful.

Undergraduate or graduate students will most often be those who are the subjects of assessments (those on whom information will be collected), because the aim is the improvement of the educational programs and services at the university.

Efforts should be made to distribute assessment information to all those who are stakeholders in programmatic improvement, i.e. anyone who could be instrumental in determining and implementing change based on assessment results. These may include personnel at the department, school, or university level. Some effort should be made to determine the relevant stakeholders for an assessment before it is undertaken so that interested parties have the opportunity to contribute to the effort.

Measuring Student Learning and Performance

Whether at the course, program or school level, measuring student learning and performance begins with clearly defined objectives. Individuals collecting and evaluating data and other types of evidence determine the kind of learning, skills, and performance they expect their students to achieve. Learning objectives are measured using formative and/or summative assessments in order to monitor impact and affect change. An overall effective assessment usually contains both quantitative and qualitative elements. (Please see Appendix 1 for an example of measurement at the course level).

Utilizing Assessment Data

There are four main ways that assessment data may be used to evaluate student learning outcomes:

Formatively – Units use data as feedback to reform or revise for improvement in student learning outcomes going forward.
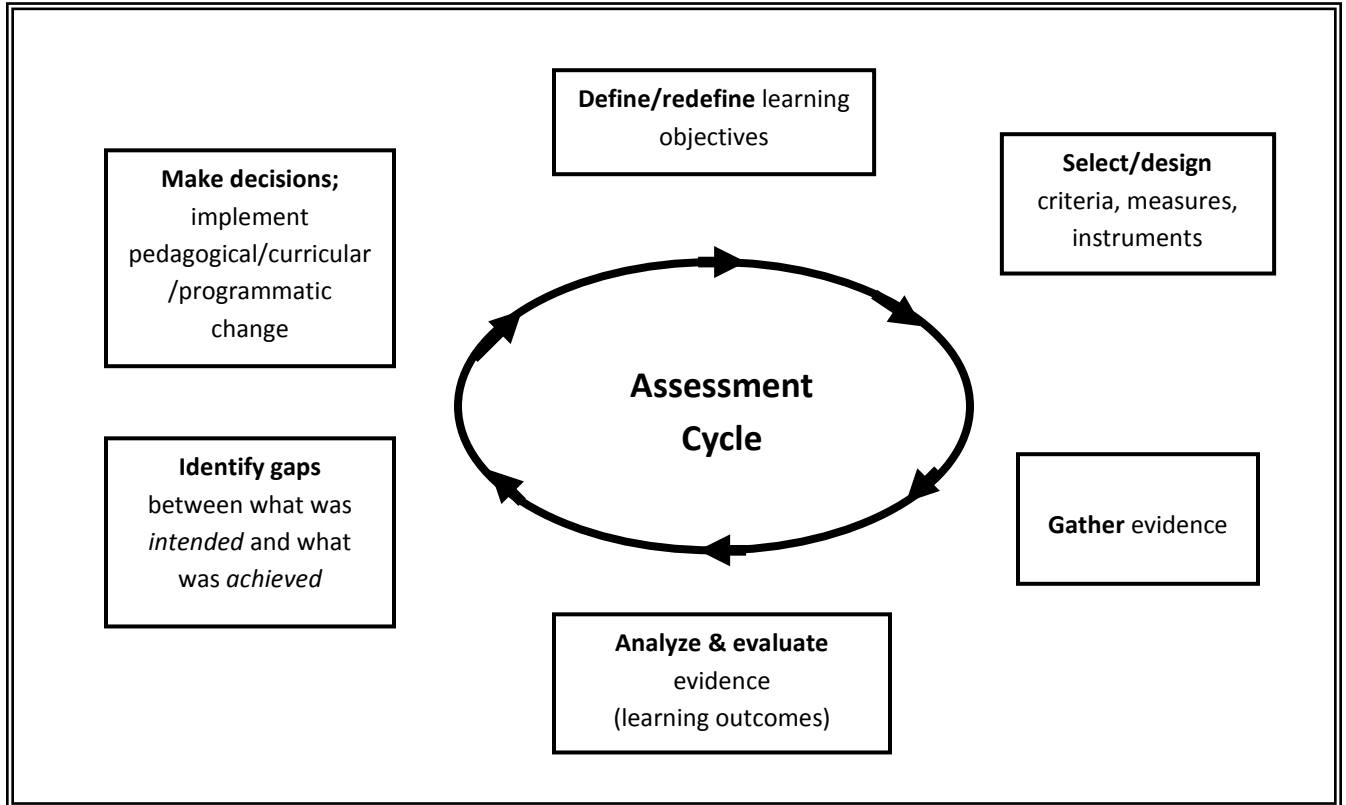
Summatively – Units use data to evaluate at an endpoint for the purposes of making judgments about learning outcomes, either in their own programs or in programs in units over which they have responsibility.

As benchmarks – Units use data to compare themselves with other units within and or beyond the university, or to compare their own programs at points over time.

As baselines – Units that have never measured learning outcomes before establish baselines for comparison going forward.

The utilization of assessment studies may be best described as a recursive pattern of assessing, evaluating the assessment data, determining action to take based on the evaluation, and then re-assessing to see if the action taken resulted in an improvement. This pattern creates a feedback loop that enables those engaged in teaching and learning to make and track progress toward their objectives.

Assessment Process Cycle

Define/redefine learning objectives

Select/design criteria, measures, instruments

Make decisions; implement pedagogical/curricular /programmatic change

Assessment Cycle

Identify gaps between what was *intended* and what was *achieved*

Gather evidence

Analyze & evaluate evidence (learning outcomes)

Conclusion

This Assessment Framework, with its guiding principles and other tenets, will help units at Northwestern University develop and guide a more systematic approach to effectively assess student learning outcomes. The framework should be used as a resource providing a rough blueprint to be fleshed out according to the specific needs of the program.

Glossary of Terms

Like all areas of study, the field of assessment has a distinct lexicon. This glossary comprises a list of common terminology within the field, with definitions drawn from the literature. As in all fields, the definitions of these terms can vary, but the goal here is to provide a university-wide glossary so that members of the Northwestern community have a shared understanding of the assessment process and what it is meant to accomplish. Strategies for assessment will take different forms from one university unit to another. But all units that deal with students, whether to teach, to advise, to house, to help, etc, share the goal of our students learning to their fullest potential. How do we do this? How do we know we have succeeded? If we haven't succeeded, what should we do? The terms below enable distinct units to design and implement their own assessment plans, while still enabling the university as a whole to articulate a Northwestern-wide assessment strategy that highlights what we do very well and identifies what we need to improve to provide our students with an outstanding education.

University Definition of Educational Assessment

Because there are many different technical and practical meanings and forms of assessment in higher education, the following provides a very general definition that may help to guide our efforts:

> Assessment is the systematic collection and review of information about students and educational programs. It includes the evaluation and use of that information for the improvement of teaching and learning.

Formative and Summative Assessment

Formative assessment:
This type of assessment typically concerns development and on-going improvement. In a learning context, formative assessment may be used to provide feedback to improve learning, motivate students, diagnose a student's strengths and weaknesses, or to help students reflect critically on their own learning. Usually it has several phases of reflection.

In a program context, formative assessment may be used, for example, to steadily improve quality, offer points of feedback and reflection, and diagnose program strengths and weaknesses.

Summative assessment:
This type of assessment typically concerns accountability, performance, and impact. In a learning context, summative assessment may be used to pass or fail a student, grade or rank a student, or predict a student's success in other courses, or otherwise measure a student's proficiency. Usually, it is obtained at the end of an instructional unit.

In a program context, summative assessment may be used, for example, to demonstrate performance, or serve as a benchmark to other programs and schools.

Evaluation

One or more processes for interpreting the data and evidence accumulated through assessment processes. Evaluation determines the extent to which student outcomes and program objectives are being attained. Evaluation results in decisions and actions regarding program improvement.

Distinguishing Goals, Objectives, and Outcomes

Goals/aims are best thought of as general statements of educational intent (whether for a course or other instructional unit or a program). Goals are usually broader and may not be specifically measurable. A goal may include one or more objectives.

Objectives: *Intended* results of instruction, curricula, programs or activities.

- **Learning objectives** are more specific and concrete statements of what students are expected to learn or be able to do upon completion of instructional unit or program. They will identify the learning behavior and criteria. Strong learning objectives avoid vague behaviors like "know," "learn," and "appreciate," and instead use more specific language such as "analyze," "evaluate," and "create" that get at higher level skills.
- **Instructional or program objectives** are more specific and concrete statements of what a course or program intends to accomplish

Outcomes: *Achieved* results of instruction, curricula, programs or activities

- **Learning outcomes:** specific observable/measurable statements of the learning students achieve.   To what extent did the student achieve the stated learning objective?

Value added outcomes: The amount of learning achieved as a result of instruction that has taken place within a particular context (e.g.: a classroom or a university), over and above the knowledge or skills a student had upon arrival. In some cases learning can be identified that may have occurred prior to experiencing the instructional context that is the subject of an assessment. The term value added is used to refer to those outcomes that are not derived prior to a student's engagement with the setting being assessed.

Benchmark*:*

1) A standard of excellence, achievement, etc., against which similar things can be measured or judged: *Programs with which we compare ourselves are sometimes used as benchmarks of excellence.*
2) Any standard or reference by which others can be measured or judged: *Standardized test scores are among the criteria used as benchmarks for admissions.*

Baseline:

1) A basic standard or level; guideline: *to establish a baseline for future studies.*
2) A specific value or values that can serve as a comparison or control.

Appendix 1 – Measuring Student Learning and Performance

The following are examples of three kinds of assessment rubrics: one for evaluating student learning within the context of a course's learning objectives, the second, for assessing individual student progress, in this case in a writing intensive freshman seminar; the third, for assessing student learning in an extra-curricular learning environment. These rubrics are not meant to be prescriptive. All are offered here as models to demonstrate how general assessment tools can be adapted to the needs of individual units, be they courses, programs, departments, student affairs departments, etc.

Example at the Course Level: Psychology class

Learning Objective (what is *intended*)	Assessment (activity, tool, instrument)	Outcome (what is *achieved*)	Evaluation (utilization of data)
After reading each journal article, students should be able to *critique* the author's methodology and *design* a follow-up study.	**Formative** (ongoing improvement) • Pre-knowledge check (students asked to critique an article first day of class) • Students identify 2-3 questions about methods, and share observations in small groups during class • Mid course check (Small Group Analysis (SGA) conducted by Searle Center) • Students write 5-6 short reflective papers that each focus on study design (receive feedback from instructor)	• The pre-knowledge check allows instructor and the student to gauge strengths and weaknesses in critiquing research methods at the outset • Students learn from one another (and instructor) what makes a valid critique; this knowledge is the value added to that learning objective by the course • SGA reveals that students did not understand first assignment; instructor clarifies instructions • The reflective papers and accompanying feedback help students connect research theory and practice; students thinking more like researchers	• Students performed slightly higher on group project and final paper, and about the same on the final exam, as compared to the previous 2 years • Instructor realizes that students had less trouble with independent/ dependant variables, but still have trouble with issues related to research ethics • Instructor decides to change 2 readings and assignments to focus more on research ethics for the next incarnation of the course • Instructor makes recommendation to department on how to better introduce research methods into intro psych courses
	Summative (impact) • Students create final group presentation (a newly designed study) • Individual final paper • Final exam with multiple choice and short answer questions about research methodology	• Using clearly defined criteria and rubric, students' performance is evaluated and graded. • By comparing their performance to the pre-knowledge check the value added can be determined.	

Example at the Program Level: Freshman Seminar

Criteria	Strong	Proficient	Marginal	Unacceptable
Argument / purpose	Clearly articulates a controlling idea that reflects sophisticated critical thinking. Weaves that idea throughout entire paper with a compelling discussion of concepts.	Clearly articulates a controlling idea that reflects some critical thinking. Presents controlling idea clearly throughout the paper with a good discussion of concepts.	Articulates a controlling idea but one that reflects little critical thinking. Controlling idea is implied throughout the paper but reader may sometimes have to intuit it in the discussion.	Controlling idea is not present or is incoherent, and it is largely derivative. Explanations may be overly simple or rambling, or may show little grasp of key concepts.
Development	Strongly supports controlling idea with evidence; analyzes and explains evidence critically and thoughtfully; clearly anticipates questions and counter-arguments	Uses evidence to support controlling idea; explains evidence effectively; anticipates most questions and counter-arguments	Provides some evidence to support controlling idea, but may not explain evidence effectively; may do little to address questions and counter arguments	Evidence used minimally, or not at all, to support controlling idea; does not anticipate questions and counter-arguments
Organization	Introduction presents the controlling idea in an interesting, compelling way); conclusion provokes readers to continue thinking about the controlling idea. Ideas proceed logically and persuasively, with clearly articulated topic sentences that move readers smoothly from idea to idea.	Introduction and conclusion clearly state the controlling idea and make an effort to present it in an interesting way. Ideas proceed logically, and each paragraph has a topic sentence.	Introduction and conclusion do not fully explore the implications of the controlling idea; ideas may seem to jump about or have weak topic sentences.	Introduction and conclusion do not clearly state the controlling idea. Topic sentences are non-existent or do not fit ideas.
Writing style/ mechanics	Sentences and paragraphs flow smoothly and are well-structured. Demonstrates sophisticated understanding of grammar, syntax, and diction.	Sentences and paragraphs hang together well. Indicates good grasp of grammar, syntax, and diction.	Sentences and paragraphs may seem choppy or rough in parts, but some structure is apparent. Occasional problems with grammar, syntax, and diction.	Sentences and paragraphs lack cohesion and structure. Writing is riddled with problems related to grammar, syntax and diction.

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[1] This rubric will be used to assess, in part, the following program learning objective: Students in the freshman seminar will be able to clearly communicate their ideas in written work.

Example at the Co-curricular Level: Community Assistant (CA) training, University Residential Life (URL)
Related Student Affairs Learning Domains: Ethics and Values, Intercultural Competence, Leadership

Learning Objective (what is *intended*)	Assessment (activity, tool, instrument)	Outcome (what is *achieved*)	Evaluation (utilization of data)
After completing the Community Assistant (CA) training program, students should be able to act and make decisions that are in congruence with their personal values and beliefs while considering the perspectives of others.	**Formative** (ongoing improvement) • During CA selection process, students participate in individual and group interviews during which they are assessed on their pre-training abilities related to the learning objective. • Immediately following CA selection process, successful and unsuccessful candidates meet individually with a URL member and receive feedback on demonstrated abilities related to learning objective. • Successful CA candidates complete pre-training self-assessment, including the RA Self- Efficacy Scale (Denzine & Anderson, 1998) and several locally developed questions designed to ascertain students' pre-training abilities related to the learning objective. • During CA training in Spring, students complete StrengthsQuest (Gallup, Inc.) which provides students with additional feedback regarding their personal values and their experiences considering perspectives of others in the decision-making process. • During Fall training, CAs participate in Behind Closed Doors, an interactive learning experience during which students to resolve a situation using their abilities to make decisions that are congruent with their personal beliefs and consider the perspectives of others. Observers rate students using a rubric. Feedback is provided to students by Area Coordinator in staff meetings. • Using an evaluation rubric, CAs	• The information gathered during the CA selection process and the self-assessment exercises provide students and the URL staff with indication of where students are on learning objective prior to training. • In training exercises, CAs reflect on their personal beliefs and the beliefs of others and how to consider both in the decision-making process.	• CAs who demonstrate difficulty with this learning objective may have limited promotional opportunities within the department; conversely, students who excel or improve in this area may be promoted to a Residence Hall Coordinator (RHC) or Senior (SCA) positions. • Supervisors (ACs) observe CAs are having difficulty with this objective and focus discussions at staff meetings on decision making and perspective taking in order to help CAs process the feedback they have received. • ACs recommend to the department how to incorporate difficult aspects of this learning objective into significant learning experiences (such as Behind Closed Doors). • Department staff training designers incorporate feedback into future training programs, including the Behind Closed Doors exercise.

Learning Objective (what is *intended*)	Assessment (activity, tool, instrument)	Outcome (what is *achieved*)	Evaluation (utilization of data)
	complete self-evaluation in October • In bi-weekly meetings with Area Coordinators, CAs reflect on how they made decisions and/or resolved situations on their floor, especially those involving a conflict with their personal values and the values of others.		
	Summative (impact) • Using an evaluation rubric, residents evaluate CA in January, and Area Coordinators evaluate CAs at end of each quarter.	• Using an evaluation rubric and through personal reflection, CAs' ability to make decisions congruent with their personal values and beliefs while considering the perspectives of others is critiqued and/or evaluated.	