Student &
Academic Services

ASSESSING STUDENT LEARNING OUTCOMES

THE PROCESS OF ASSESSING STUDENT LEARNING

Student learning assessment is a four-step process:

1.   Identifying learning outcomes (determining what students should know, think, and be able to do as a result of a program or service);

2.   Gathering evidence (creating opportunities for students to demonstrate what they have learned);

3.   Interpreting evidence (drawing conclusions based on students' performance);

4.   Implementing change (using conclusions to modify the program or service).

Student learning assessment is cyclical. Unless we assess the modified program or service, we are unable to determine whether or not the changes we made actually improved student learning. Thus, the fourth step – implementing change – serves as a jumping-off point for future assessment, thereby creating an ongoing cycle of improvement (see Figure 1).
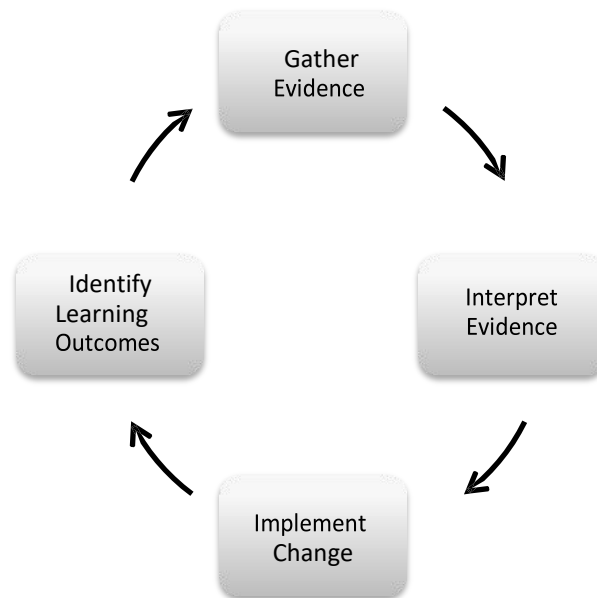
Figure 1: The assessment loop

Well planned assessment will answer the following questions:
- *What are we trying to do and why?*
- *What is this program/service supposed to accomplish?*
- *How well are we doing it?*
- *How do we use the information to improve or celebrate success?*
- *Do the improvements we make work?*
   (Adapted from Bresciani, 2002; as cited in Bresciani, Zelna, & Anderson, 2004)

Table 1: Key terms related to student learning assessment	
Assessment	Any effort to gather, analyze, and interpret evidence which describes institutional, departmental, divisional, or agency effectiveness (Upcraft & Schuh, 1996).
Direct measure of student learning	A measure that directly evaluates student learning (Walvoord, 2004). E.g., a survey question that asks students to define leadership in their own words
Evaluation	Any effort to use assessment evidence to improve institutional, departmental, divisional, or institutional effectiveness (Upcraft & Schuh, 1996).
Indirect measure of student learning	A measure that evaluates perceived, rather than actual, learning (Walvoord, 2004). E.g., a survey question that asks students to rate their understanding of leadership on a scale from 1 (very low understanding) to 5 (very high understanding)
Institutional Review Board	A group of individuals charged with reviewing proposed research involving human subjects to ensure the protection of those subjects and compliance with federal human subjects regulations (The University of Iowa, 2002).
Learning outcome	What students should know, think, and be able to do as a result of an experience. E.g., The American Association of Colleges and Universities (2010) established four learning outcomes for liberal arts education: knowledge of human cultures and the physical and natural worlds; intellectual and practical skills; personal and social responsibility; and integrative and applied learning.
Measurement	The methods used to gather information for the purposes of assessment (Upcraft & Schuh, 2001). E.g., survey, focus group, interview, portfolio
Qualitative methodology	Involves the detailed description of situations, events, people, interactions, and observed behaviors; the use of direct quotations from people about their experiences, attitudes, beliefs, and thoughts; and the analysis of excerpts or entire passages from documents, correspondence, records, and case histories (Upcraft & Schuh, 2001).
Quantitative methodology	Involves the assignment of numbers to objects, events, or observations according to some rule. Instruments with established psychometric properties are used to collect data, and statistical methods are used to analyze data and draw conclusions (Upcraft & Schuh, 2001).
Research	Differs from assessment in that it guides theory development, tests concepts, and has implications that extend beyond a single

PROGRAM AND SERVICE-LEVEL LEARNING OUTCOMES

The more targeted a *Service Center's mission,* the more specific its learning outcomes can – and should – be.

Example:

Purpose Statements of the Division of Student Life (The University of Iowa)
Mission
The Division of Student Life fosters student success by creating and promoting educationally purposeful activities within and beyond the classroom.
Definition of Student Success
Successful students develop skills and knowledge, become more mature in their thinking, assume greater responsibility for their own lives and learning, develop understanding of diversity and multiculturalism, and become effective leaders.
Priorities
Fostering undergraduate student leadership; supporting multicultural competence in our students and ourselves; and creating a healthy and safe campus and community.

Use this template to Focus Service Center Assessment Efforts

Service Center Mission

Definition of Student Success

Priorities

Program- and service-level learning outcomes are specific and descriptive.

Examples from programs and services (UofI) learning outcomes:
- *Create a vision as a leader* (Center for Student Involvement and Leadership);
- *Request accommodations* (advising, Student Disability Services);
- *Identify strategies for promoting health* (visiting the clinic, Student Health Service);
- *Describe current events and political issues* (Women's Resource and Action Center);
- *Communicate effectively in an emotional environment* (employment as an intramural official, Recreational Services); and
- *Identify campus resources* (University Housing and Dining)
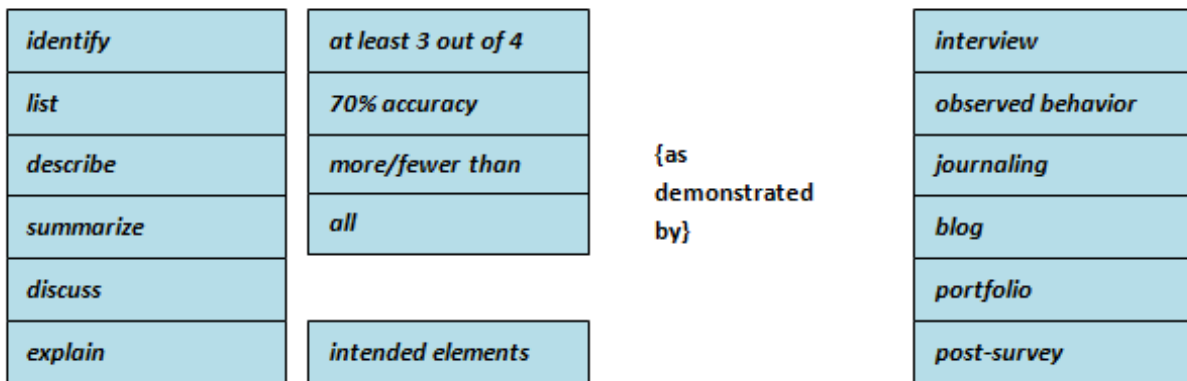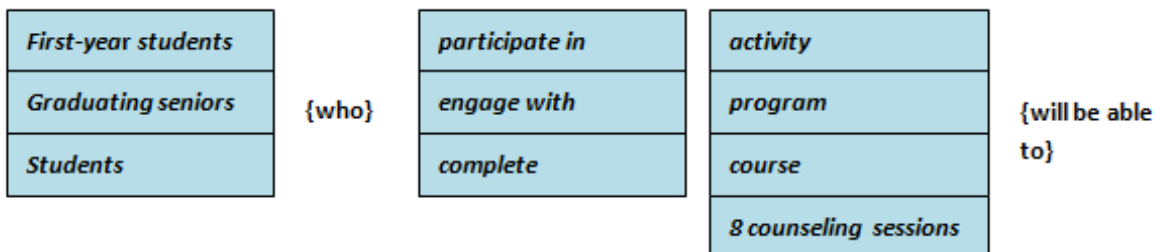
LEARNING OUTCOME STATEMENTS

FORMAT

An easy format to use for writing learning outcomes is to follow the SWiBAT formula: **S**tudents (**w**ho_____) **wi**ll **b**e **a**ble **t**o_____.

Here are some examples of learning outcomes using the SWiBAT formula:
- ✓ *Students will be able to successfully discuss accommodation needs with their instructors.*

- ✓ *Students who work as intramural officials will be able to demonstrate appropriate conflict resolution skills in an emotional environment.*

✓ *Students who participate in "the program" will be able to identify at least two academic support resources on campus.*

Below is general outline for writing outcomes in the SWiBAT format.

First-year students		participate in		activity	
Graduating seniors	{who}	engage with		program	{will be able to}
Students		complete		course	
				8 counseling sessions	

identify		at least 3 out of 4			interview
list		70% accuracy			observed behavior
describe		more/fewer than	{as demonstrated by}		journaling
summarize		all			blog
discuss					portfolio
explain		intended elements			post-survey

Typical format of a learning outcome statement (Keeling & Associates, LLC, 2007)

When writing learning outcome statements that describe cognitive growth, it may be helpful to refer to Bloom's (1956) taxonomy, or hierarchy, of learning in the cognitive domain. Student learning outcomes should reflect the level of learning you want students to demonstrate. In a one-hour training session it makes sense for your outcomes to focus on remembering or restating a key idea, while in a year-long program, outcomes would likely reflect higher level learning such as analyzing or evaluating. Here's the updated version of Bloom's taxonomy:

Creating

Evaluating

Analyzing

Applying

Understanding

Remembering
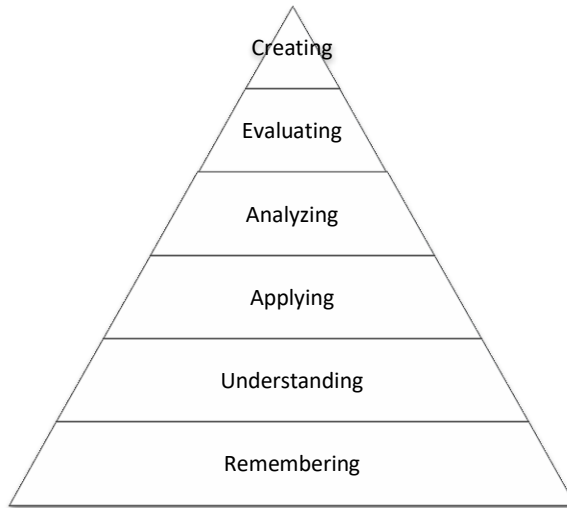
Updated version of Bloom's taxonomy of learning in the cognitive domain

EVALUATING LEARNING OUTCOMES

Evaluating Learning Outcomes
Does the outcome support the program/service objectives?
Does the outcome describe what the program intends for students to know, think, or be able to do?
Is the outcome important/worthwhile? Will assessing it give you valuable information?
Is the outcome: • Detailed and specific? • Measurable/identifiable? • A result of learning?
Can you create an activity to enable students to learn the desired outcome?
Can the outcome be used to make decisions on how to improve the program?

Use this template to write the Student Learning Outcome for a Program or Service

Program or Service Name

Program or Service Learning Outcomes

GATHERING EVIDENCE

SELECTING AN ASSESSMENT TOOL

Consider these questions:
1. *Which outcome(s) do you want to measure?* Rather than assessing all learning outcomes at once, you may want to focus on specific groups of learning outcomes to make the assessment process more manageable.
2. *How will you know if a student has achieved the outcome? What will achieving the outcome "look like"?*
3. *For example:*
    a. *What do "effective presentation skills" look like?*
    b. *What are the essential elements that must be present in a "leadership vision"?*
    c. *What does a student need to be able to tell you for you to know they can identify their next steps for counseling or treatment?*

The best method is one that measures your outcome as effectively and efficiently as possible, is pertinent to your key stakeholders, and that gives you useful and useable data.

When possible, select a method that actually captures how students demonstrate what they have learned vs. their perception of what they've learned.

DIRECT VERSUS INDIRECT DATA

Direct measures of collecting information require students to *display* learning. Examples include collections of student work, pre and post testing, test questions, observation of performance, rubrics, and performance on a case study.

Indirect measures ask students or others to *reflect* on student learning. Examples include questions asking self-perceptions of learning, job placement statistics, the percentage of students who graduate.

Indirect is asking students *if* they learned vs. *what* they learned. Direct Assessment is more about *what* they have learned.

ASSESSMENT TOOLS

Rubrics:
Rubrics are a detailed set of criteria for defining the standards for evaluation performance. Rubrics can vary in complexity from simple checklists to detailed components with detailed scales.

Interviews and focus groups:
An interview is a purposeful discussion with a single individual to get information. A focus group is an interview with a small group of people on a specific topic or experience. Both of these assessment methods are a great way to gather rich detail or deeper levels of information on a specific topic.

Observations and documents:
In using observation as an assessment method for student learning, you would watch and then record (with very detailed notes) a specific phenomenon in the context in which it occurs. With this assessment method you would assess student learning as it occurs in a specific context. For example, you might watch as a student goes through the steps of CPR, or teaches an aerobics class, to see if they are doing it correctly. You could also observe a tutor in action to see if s/he is utilizing effective teaching strategies.

Using documents to assess student learning consists of gathering documents such as minutes from meetings, reports, or files and analyzing these documents for information on learning outcomes

Surveys:
Surveys are an assessment method where descriptive data about attitudes, behaviors, opinions, knowledge, and values of an individual are collected. Surveys come in many different forms and can include many different question types (multiple choice, short answer, matrix, etc.).

Portfolio:
A portfolio is a collection of artifacts such as writing samples, projects, journals, etc. that demonstrate student learning.

SAS Service Centers: Use this template to Plan the Assessment of the Program or Service: Both Indirect and Direct Assessments

Program/Service Name:

Learning Outcomes	Assessment – Direct/Indirect	Method of assessment	Administration method and frequency