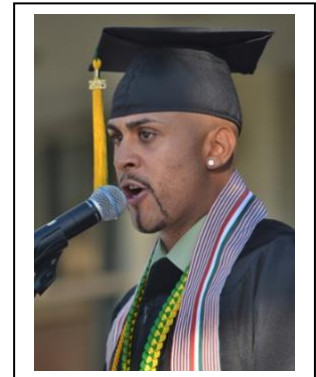
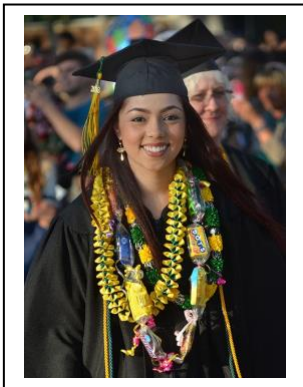




GROSSMONT
COLLEGE

SLO HANDBOOK



COLLEGE PLANNING
&
INSTITUTIONAL
EFFECTIVENESS

Revised March 2022

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An Overview of Student Learning Outcomes at Grossmont College

The Student Learning Outcomes (SLO) assessment process is a means to discover if students are learning what they are expected to learn in courses and programs throughout the college. The Accrediting Commission for Community and Junior Colleges (ACCJC) has elected to use SLOs as an integral part of its accrediting standards (see Appendix A). This is, in large part, a response to the U.S. Department of Education's call for colleges and universities to engage in a process of self-examination and reflection with the goal of *continuous* quality improvement.

Faculty are the discipline experts. Therefore, as part of the outcomes assessment process, the learning outcomes and means of assessment are determined by the faculty members of a particular department or program for each course and for the program as a whole. The college's institutional outcomes should work to support the institutional strategic goals and its mission. In addition, course-level SLOs work to support Program SLOs (PSLOs) as well as Institutional SLOs (ISLOs).



The use of assessment results is meant to stimulate faculty collaboration and direct activities that can improve instructional delivery and support services on campus.

Advantages of Outcomes Assessment

Using outcomes assessment is advantageous on many levels. Below is an outline of some of the benefits of assessing SLOs for students, for you as an instructor, and for the college.

Student Benefits

Communicating student learning outcomes to students provides them with an upfront understanding of what they are expected to learn and demonstrate at the end of a course, certificate, or degree. Learning outcomes should not be a mystery to students, and they should be included on all course syllabi.

Using SLOs also changes the orientation of the class from what you want to cover to what a student should know or be able to do at the end of the semester. The result of this is a shift to student-centered learning with an emphasis on student activity, interaction and application that leads to higher-level processing.

Faculty Benefits

The primary benefit for faculty and programs is the increased dialogue that results in relation to teaching and learning. Discussions about the use of SLO assessment results lead to an exchange of ideas and pedagogical techniques among faculty within and even across departments.

As individual faculty members we can also benefit from SLO assessment because they provide a method to evaluate how well you are teaching different sections of your courses. Thus, at the end of the semester you can use this information to evaluate your course structure or teaching methods.

Using SLOs also makes structuring a course simple because it helps you to select appropriate activities, course materials, and assignments to accomplish your goals for the class. In addition, it helps you to focus your course on what you really want students to go away with at the end of the semester.

College Benefits

All accrediting agencies today require colleges to engage in ongoing assessment. Assessment provides the accrediting agency with evidence of student learning and program quality. We engage in SLO assessment, however, not just as an empty exercise to achieve accreditation but because the information gained can allow us to highlight what we do well and help us to improve our programs and services for students in areas where we might be lacking.

Because SLO assessment has become standard in all four-year colleges and universities as well, aligning our SLOs with the SLOs of our primary transfer institutions facilitates the articulation process.

(Source: <https://www.saddleback.edu/uploads/epa/slohandbook03-25-15.pdf>)

Accreditation

There are several accreditation requirements related to outcomes assessment. The following ACCJC Accreditation Standards specifically address how institutions must use outcomes assessment to inform continuous improvement:

ACCJC Standard I.B.2: “The institution defines and assesses student learning outcomes for all instructional programs and student and learning support services.” This standard is an eligibility requirement.

ACCJC Standard II.A.16: “The institution regularly evaluates and improves the quality and currency of all instructional programs offered in the name of the institution, including collegiate, pre-collegiate, career-technical, and continuing and community education courses and programs, regardless of delivery mode or location. The institution systematically strives to improve programs and courses to enhance learning outcomes and achievement for students.”

See the Appendix for the full list of ACCJC Standards.

Role of SLO Department Liaisons

Each department or service unit should choose an SLO liaison to help keep on track with their scheduled assessment plan. **The primary responsibilities of SLO liaisons are:**

- 1) As needed, attend SLO workshops or training sessions, in particular on how to use Nuventive, and in turn, train department peers;
- 2) Assist with maintaining the assessment plan; and
- 3) Keep current on best practices in outcomes assessment by attending all college-wide professional development activities related to outcomes assessment and reporting back to your department on the information gained at these workshops and activities.

Specifically, liaisons should be ready to assist with the following timeline:

- A. Semester before scheduled assessment(s):

- Send out an email reminder to members of the department/unit about upcoming SLO assessment dates (ex: send out a notice in the spring about assessments scheduled for fall). This will allow time for collaboration on assessment method. In this reminder, please include this information: ACCJC requires that course-level SLOs be placed on course syllabi so that students are fully aware of what they can expect to learn by the end of the course.
- B. During flex week department meeting:
- Verify that assessment date(s) have been scheduled.
- C. Before Census each semester:
- Verify that the SLOs on syllabi for the department are correct. Complete the SLO Syllabi Verification form.
- D. By week 10 of the semester:
- Ensure that the appropriate faculty member(s) have uploaded assessment results for the previous semester's assessments into Nuventive (ex: During week 10 of the fall semester, upload the assessment results from the previous spring).
 - Consult with the faculty involved in the assessment activities to ensure that they have a plan for improvement in place. Upload this plan, or Remind these faculty members to upload the improvement plan, as well as the date of the next assessment into Nuventive.
 - Before logging out of Nuventive, update the SLO to indicate when the SLO will be assessed again.
- E. At the next flex week meeting:
- Remind department chair to include reporting of assessment results on the department's meeting agenda.

Outcomes versus Objectives

Source: Saddleback College, 2015

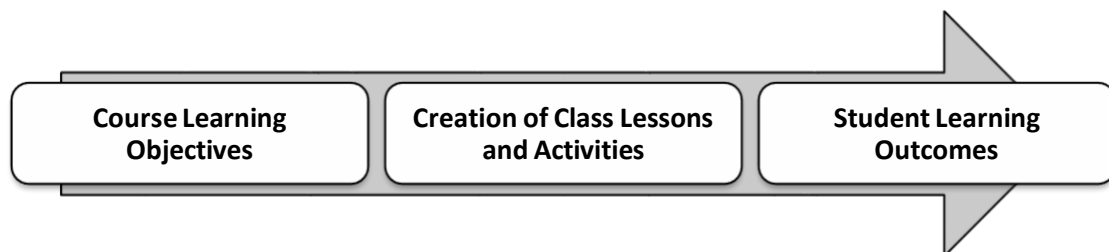
There has been a lot of confusion, both locally and on the state level, about what differentiates SLOs from objectives. In many instances, these terms are used interchangeably; however there are subtle important differences. SLOs connect the identified practice gap with the related educational need, objectives are typically written as tasks:

Learning objectives are statements that focus on the content and/or skills faculty will cover and the actions that student will be expected to perform during the semester.

Objectives guide how professors plan the class lessons or activities that will lead to the desired outcomes as stated in the SLOs.

SLOs focus on what a student will be able to do as a result of completing the course successfully. These address the observable outcomes you expect to see in a student at the end of the semester in terms of knowledge, skills, and attitude. The assessment of SLOs is useful in helping professors know where their teaching and learning activities have and have not been successful. SLOs also let students know what they can expect to attain as a result of completing the course.

SLOs and learning objectives, therefore, are intricately linked to one another. Simply put, objectives explain what will be done in the class and outcomes explain what students will be able to do after the class.



Below are some examples of wording differences between learning objectives and their related SLOs:

Learning Outcome	Learning Objective
Knowledge: Demonstrate knowledge of evidence-based treatment for hypertensive patients by passing post-test with score of 80% or greater.	List 5 side effects of anti-hypertensive agents.
Competence/Skill: Correctly identify required actions to manage patients in hypertensive crisis by analyzing a case study.	Discuss risks associated with untreated hypertension.

Types of SLOs

Institutional Level Student Learning Outcomes (ISLOs)

Institutional Student Learning Outcomes (ISLOs) state the knowledge, skills, abilities, and habits of mind that students are expected to develop as a result of their overall experiences at the college. Ideally, each course level SLO and program level SLO should work to support one or more of the ISLOs below.

Program Level Student Learning Outcomes (PSLOs)

Program Student Learning Outcomes (PSLOs) flow directly from and support the college and division/school/department mission. The link between the mission and the outcome should be clear. The program outcomes are directly related to the academic discipline of the program and are defined as the knowledge, skills, abilities, attitudes, or habits of mind that students have at the completion of a program, activity or interaction. Program outcomes are related to demonstrated behaviors of students who graduate-not characteristics of the program or its faculty. Most of these competencies should be measurable in some way, but some may only be observable (such as values).

Course Level Student Learning Outcomes (CSLOs)

Course-level SLOs focus on what a student will be able to do as a result of successfully completing a course. Course SLOs describe the meaningful, observable and measurable knowledge, skills and/or attitudes students will learn in the course. These address the measurable and observable outcomes you expect to see in a student at the end of the semester in terms of knowledge, skills, and attitude.

There are three types of Course level SLOs: (a) Cognitive- "What will students complete this course knowing?" (b) Behavioral- "What will who complete this course be able to do?" and (c) Affective- "What will students who complete this course care about or think?"

The assessment of SLOs is useful in helping professors know where their teaching and learning activities have and have not been successful. SLOs also let students know what they can expect to attain as a result of completing the course.

Grossmont College's Institutional SLOs

I. Critical & Creative Thinking

- Students will explore issues, ideas, artifacts, and events and gather evidence from multiple perspectives before forming an opinion or conclusion.
- Students will analyze, connect, and synthesize ideas in order to creatively solve problems.
- Students will demonstrate competence in interpreting and working with quantitative and qualitative data to weigh evidence, support arguments, and solve problems in everyday situations.

II. Communication Skills

- Students will communicate effectively through reading, writing, speaking, and listening.

III. Global & Local Perspectives

- Students will prepare to become global citizens by acknowledging and articulating the interconnection of the physical, social, political, economic, and cultural environments in which they live.
- Students will demonstrate sensitivity, respect, and integrity when interacting with individuals of diverse backgrounds, perspectives, and values.

IV. Technology & Information Skills

- Students will gain core information literacy skills by critically evaluating information, identifying the most reliable information from a variety of sources, and recognizing the importance of being well-informed and sharing information responsibly.
- Students will demonstrate skill in the use of technology and its ethical and responsible applications.

V. Life & Career Skills

- Students will engage in self-reflection to cultivate their personal development and well-being.
- Students will engage in and interpret various forms of creative expression.
- Students will demonstrate and apply the attitudes, knowledge, ethics, and skills necessary to contribute to professional, civic, and academic communities.

Step-by-Step Process for Program and Course Outcomes Assessment

Departments and administrative units should follow the steps listed below in the creation and assessment of their SLOs. Program SLOs (PSLOs) should align with the Institutional SLOs (ISLOs).

Step 1: Define the mission and purpose of the program or administrative/service unit. Upload this mission into Nuventive (Department Information section).



Step 2: Compose/revise program-level SLOs (PSLOs) and submit to the Curriculum Committee for approval. The SLO coordinator will upload into Nuventive once the curriculum packet is approved by the Governing Board. Program SLOs should work to support the ISLOs.



Step 3: Map the PSLOs to institutional-level SLOs (ISLOs) in Nuventive.



Step 4: Compose/revise course-level SLOs for each course in the program (via the Curriculum Committee). The SLO Coordinator will upload new/modified SLOs once they have been approved via the Curriculum Committee processes.



Step 5: Map each course-level SLOs to PSLOs and ISLOs.



Step 6: Create an assessment plan by identifying the semester(s) for which each SLO will be assessed. ***Be sure to create a timeline that will allow for continual improvement.*** Input this information into Nuventive.



Step 7: Determine the means of assessment and the criteria (benchmark) for success for each SLO. Input into Nuventive.



Step 8: Conduct and document assessment activities. Input results into Nuventive. ***IMPORTANT:*** Indicate how you plan to use the results to improve the unit, course, teaching methodology, course sequence, and/or program.



Step 9: Use the assessment results to improve the unit, course, teaching methodology, course sequence, and/or program.



Step 10: Assess whether the improvements worked. Upload the results into Nuventive. ***Begin the cycle again.***

Source: Saddleback College, 2015.

Writing an Effective Mission Statement for Your Program or Unit

Each instructional program should begin by defining its mission and purpose. This should be in the form of a mission statement that provides a clear description of the program, what it does, and for whom it does it. A mission statement should describe the relationship the college/program needs to create, build, and maintain with critical stakeholders. The mission statement should be aligned with the College's vision, mission statement, or values (see Appendix A), and reflect, in particular, on how student learning and student success are enhanced by the program and its offerings.

Below are examples of possible mission statements:

The mission of the Grossmont College Nursing Program is to educate qualified students to earn an associate of science degree, to successfully pass the NCLEX-RN, and to integrate the knowledge, skills, values and attitudes essential for entry level practice. Through educational excellence, the nursing program challenges diverse students to develop sound clinical judgment in an environment that facilitates educational mobility, personal growth, and a pattern of lifelong learning. The Program's primary role is to foster and facilitate the development of nurses who are prepared to provide care in a variety of health care settings to a diverse community in a dynamic evolving health care environment.

The International Business Program is dedicated to equip students with the necessary skills and expertise to move products across international borders. The Program prepares students to enter into import and export activities.

The American Collegiate English (ACE) Program is dedicated to assisting international students in their academic, social, and cultural transition to Grossmont College or other institutions of higher education. Our highly-qualified and professional instructors present a curriculum that focuses on the English language skills that help ensure success for students in their pursuit of higher education.

Mapping SLOs

The Role of Curricular Mapping in Assessment: What is it? Why do it?

Curriculum mapping is a method to align instruction with desired goals and program outcomes. It can also be used to explore what is taught and how.

The map or matrix:

- Documents what is taught and when
- Reveals gaps in the curriculum and the degree of coverage of SLOs
- Helps design an assessment plan

Benefits:

- Improves communication among faculty
- Improves program coherence
- Increases the likelihood that students achieve program-level outcomes
- Encourages reflective practice

Rule of Thumb:

Before asking the question “Do students know this?” we need to ask “Are we providing this experience?”

What does a curriculum map/matrix look like?

It's a table with one column for each learning outcome and one row for each course or required event/experience (or vice versa: each row contains a course and each column lists a learning outcome).

Example of Template Mapping Course to Program SLOs

	Course 101	Course 102	Course 103	Course 104	Course 200
PSLO #1	I	P	P	M	
PSLO #2		I	P	M	
PSLO #3				I,P	M
PSLO #4					I,P,M

Key: "I"=Introduced; "P"=reinforced and opportunity to practice; "M"=mastery at the senior or exit level

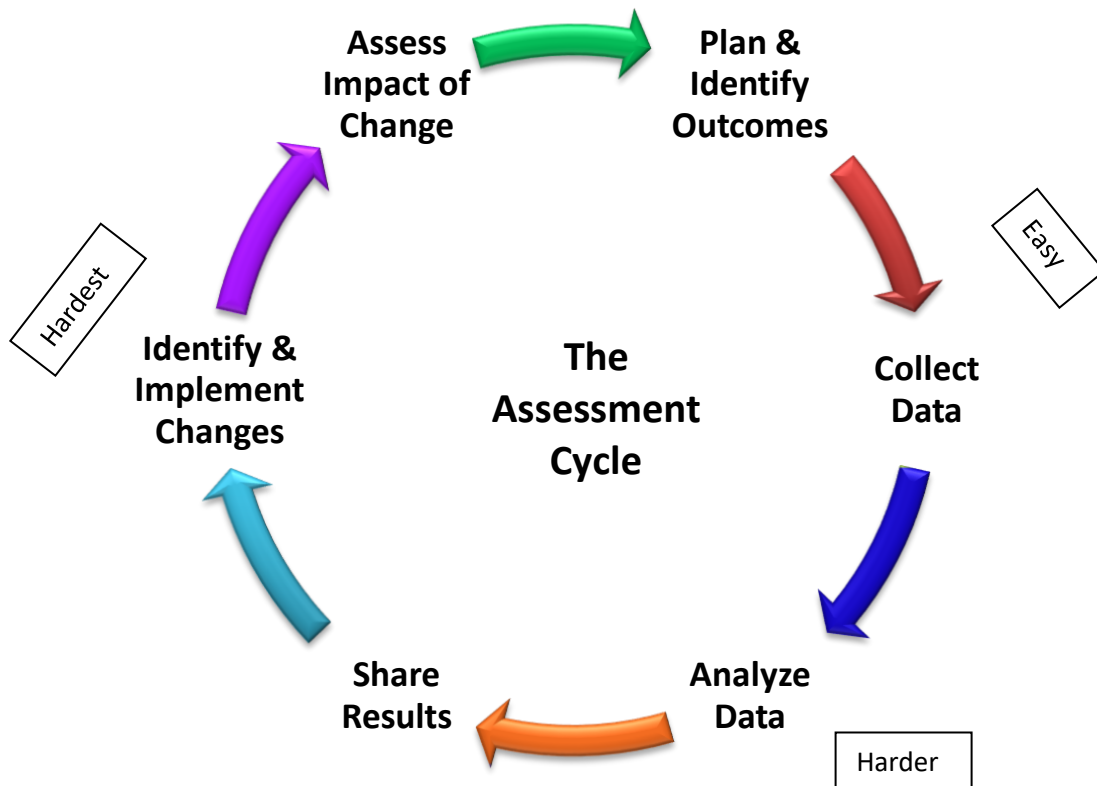
For more information on Curricular Mapping, please see the following source:

National Institute for Learning Outcomes Assessment:

<http://www.learningoutcomesassessment.org/publications.html>

The Assessment Cycle

The American Association of Higher Education (1992) has recognized that assessment works best when it is continuous. The AAHE has stated that “Assessment is a process whose power is cumulative. Though isolated, ‘one-shot’ assessment can be better than none, improvement is best fostered when assessment entails a linked series of activities undertaken over time” (as cited in NILOA, 2017). The activities that consist of this continual cycle of assessment are captured in images such as the one below:



Source: Kuh, G. D., Ikenberry, S.O., Jankowski, N.A., Reese Cain, T., Ewell, P.T., Hutchings, P., & Kinzie, J. (2015). *Using evidence of student learning to improve higher education*. San Francisco, CA: Jossey-Bass.

The Assessment Cycle: Plan & Identify Program Level Outcomes

Process for Developing Program Learning Outcomes

Program student learning outcomes identify observable and measurable knowledge, skills, and attitudes/values a student obtains by the end of a learning experience.

Faculty within a department or program should meet to discuss the expected learning outcomes for students who complete a particular series of courses, such as those required for a certificate, an AA/AAT/AS/AST degree, or for transfer. The minimum number of PSLOs is 3-5, but the department might elect to have a more comprehensive list. For most programs, PSLOs are only assessed through linked course-level SLOs.

Questions to Consider Related to Knowledge

- What do you want your students to know by the time they complete your program?
- What are the most important terms, concepts, theories, and principles they should know?
- What methods and procedures should they know?

Questions to Consider Related to Skills

- What do you want your students to be able to do with what they know?
- What types of skills should they demonstrate?
- What constitutes “effective writing” in the program?
- What performance skills or competencies should they demonstrate?
- What skills do they need to solve problems in the discipline?
- What types of research experiences should students have?

Questions to Consider Related to Attitudes/Values

- What do you want your students to care about?
- What values or attitudes should they develop?
- What should they appreciate or respect?
- What ethical issues should they be able to address?

Source: Shoemaker, J. (2007). Introduction to Student Learning Outcomes in the Major. Retrieved from slideplayer.com/slide/5100887/

Below are examples of Program Level SLOs:

- Upon completion of an AA or AAT degree in anthropology, students will be able to identify the ethical responsibilities and concerns in the conducting of anthropological research.
- Upon completion of an AA degree in music, students will demonstrate a working knowledge of musical analysis and harmonic theory applicable to their area of specialization.
- Upon completion of an AA degree in geography, students will be able to demonstrate map literacy (as related to the basic geographic theme of "location").

Sample Program Level SLOs Mapped to Institutional Level SLOs (ISLOs):

Upon completion of the Economics major, students can

- Economic literacy:
 - Clearly explain core economic terms, concepts and theories.
- Critical thinking:
 - Demonstrate the ability to apply economic reasoning to contemporary social issues and policy problems.
- Quantitative reasoning:
 - Apply appropriate quantitative and statistical techniques.
 - Conduct economic analysis using equations and graphs.
- Communication:
 - Effectively communicate results of economic research and analysis to colleagues and decision makers through written reports and oral presentations.

The Assessment Cycle: Plan & Identify Course-level Outcomes

Developing Course Level Student Learning Outcomes

Writing measurable outcomes is a skill that takes time to master. When writing SLOs:

- **Focus on what the student can do.** Do not address what was taught or presented, but address the measurable and observable outcome you expect to see in the student. Think about the knowledge, skills, and attitudes you expect from students who receive a certificate or degree in the program.
- **Use active verbs.** Active verbs produce statements that are concrete and measurable. For instance, if you want the students to understand how to correctly use a microscope - using the word *understand* is not measurable. Can you measure understanding? Instead try to imagine the outcome - Students will *focus* and *display* an image on the microscope. With this outcome, you can both develop criteria and measure ability. Other active verbs include: describe, classify, distinguish, explain, interpret, compose, perform, demonstrate, etc. (see list of active verbs in Appendix C).
- **Create a singular outcome.** Do not “bundle” outcomes by linking them with “and.”
- **Work with the faculty within your department on writing SLOs.** Since all faculty are responsible for SLO assessment, it is important to come to a consensus on which SLOs are important for the program as a whole.
- **Share the outcomes with your students.** Students need to clearly understand what is expected of them. They are unfamiliar with the discipline specific language, so they can help in clarifying the outcomes as well.
- **Modify as you learn from experience.** SLOs should be reviewed and modified bi-annually during program review. However, as you assess an SLO, sometimes flaws will be identified in the SLO itself.

Source: Saddleback College, 2015.

SWiBAT Structure of Learning Outcomes

Students + Action Verb + Learning Statement

Example of SWiBAT Structure: Students will able to critique and revise their own resume.

ABCD Structure of Learning Outcomes

Audience/Who?	Who are the learners?
Behavior/What?	What will they be able to know or do?
Condition/How?	Under what condition will the learning take place?
Degree/How Much?	How much will be accomplished and at what level?

Example of ABCD Structure:

As a result of participating in the Community Law Project, students will be able to explain at least 3 social issues facing the population they serve.

Source: Vasquez Urias, M. (2016).

Below are examples of course-level SLOs representing a variety of disciplines:

- Upon successful completion of this course, students can describe fundamental biological processes and systems.
- Upon successful completion of this course, can perform appropriate analysis of data and draw valid conclusions from their analysis.
- Upon successful completion of this course, students will be able to cite all sources used for their speeches in the form of a bibliography attached to their preparation outlines.

Below are examples of course-level SLOs for a single course:

Upon completion of this course in introductory economics, students can:

- Explain the basic microeconomic terms, concepts and theories.
- Apply economic reasoning to real-world situations.
- Communicate economic reasoning to others in writing.

Checklist for Writing Effective SLOs

✓ Is the SLO **Meaningful**?

How does the outcome support the departmental mission/goal?

✓ Is the SLO **Manageable**?

Do we have the means to carry out the activity and evaluate the intended outcomes?

✓ Is the SLO **Measurable**?

How will we know that the outcome is achieved? What assessment methods will we use?

Source: Vasquez Urias, M. (2016).

How many SLOs Should be Attached to a Course?

From Long Beach City College (LBCC): LBCC's Outcomes Assessment Committee (OAC) suggests a focused and meaningful approach to assessment of Student Learning Outcomes and recommends that faculty create the following number of SLOs per course:

- Non-Credit Course: 1 SLO
- 1-2 Unit Course: 1-2 SLOs
- 2-4 Unit Course: 2 or more SLOs
- 5+ Unit Course: 2 or more SLOs

For more information on writing course SLOs, see Appendix C.

The Assessment Cycle: Collect Data

After writing the SLOs, you need to determine how you will assess them and what criteria you will use for success. The key thing to remember about assessing SLOs is to keep it simple, because overly complex assessment methods are too cumbersome to manage.

There are two kinds of evidence: direct methods and indirect methods. Examples of direct methods include course assignments, essays, presentations, and portfolios. Examples of indirect methods include questionnaires and surveys that ask students to reflect on their learning. Both are valid, although indirect methods alone are not necessarily considered to be sufficient evidence.

Assessment Methods

Method	Description	Direct or Indirect
Capstone Project or Course	A capstone project or course that integrates knowledge, concepts, and skills students are to have acquired during the course of their study. Capstones provide a means to assess student achievement within a program.	Direct
Clinical Evaluation	An evaluation of students' performance in a clinical setting. The clinical performance is scored using a rubric.	Direct
Competition (Juried)	An evaluation of students' performance or work based on the scoring or judging of external reviewers.	Direct
Demonstration/Presentation	An evaluation of students on a demonstration or presentation to the class or other audience. The demonstration or presentation is scored using a rubric.	Direct
Document Review	A review of course or unit documents for the purpose of determining if information is available and clear.	Indirect
Entrance/Exit Interviews	An assessment based on interviews conducted with students when they enter college and when they leave—either through graduation or early departure. These interviews can be designed to measure program-specific SLOs or to gather feedback on student services AUOs.	Direct/Indirect
Exam - Exit	A comprehensive exit exam given near the end of the student's academic career (usually during the final semester prior to graduation). The exam is generally given to determine a student's acquisition and application of a particular type or form of knowledge or skill, as well as the ability to integrate knowledge from various disciplines. The exam can be written, oral, or a combination.	Direct
Exam or Quiz – In Course	An exam or quiz that is administered by individual professors in their classes. It may be the entirety of the exam or embedded questions within an exam.	Direct

Method	Description	Direct or Indirect
Exam – Standardized/Licensure	A test that is developed outside the institution for use by a wide group of students using national, regional, or professional norms.	Direct
Exhibit	An evaluation of students' work in a public exhibit. The exhibit is scored using a rubric.	Direct
Field Work	An evaluation of students on the demonstration of skills during field work. The skills demonstration is scored using a rubric.	Direct
Focus Group	A series of structured discussions with students who are asked a series of open-ended questions designed to collect data about beliefs, attitudes, and experiences.	Indirect
Frequency/Count	An assessment based on the number or frequency of things, such as usage of particular services.	Direct/Indirect
Group Project	An evaluation of students' work on an assigned group project. The work is scored using a rubric.	Direct
Institutional Data	A review of program and student data collected at the institutional level. Data may include program enrollment, retention, or student GPA.	Direct/Indirect
Internship	An evaluation of students' job performance during an internship or volunteer placement. The job performance is scored using a rubric.	Direct
Journal Review	An evaluation based on students' written journals. Entries can be used to determine students' overall engagement with the course material and to assess their understandings of course content.	Direct
Lab Practicum	An evaluation of students' work during a lab practicum. The work is scored using a rubric.	Direct
Lab Report	An evaluation of students' work on a lab report. The work is scored using a rubric.	Direct
Observation/Interview Report	An evaluation of students' work on an observation or interview report. The work is scored using a rubric.	Direct
Outreach	An assessment of the successes, benefits, or quality of outreach activities.	Direct/Indirect
Participation	An evaluation of students on their course participation. Participation is scored using a rubric.	Direct
Performance	An evaluation of students during musical, theatre, athletic, communications, or other performance. The performance is scored using a rubric.	Direct
Portfolio	An evaluation of students' work collected in a portfolio and evaluated using a common rubric. Portfolios may contain research papers, reports, tests, exams, case studies, videos, personal essays, journals, self-evaluations, or exercises.	Direct
Pre/Post Testing	An exam administered at the beginning and at the end of a course or program to determine the progress of student learning.	Direct
Professional Development	An assessment based on the frequency or quality of professional development opportunities.	Indirect

Method	Description	Direct or Indirect
Project	An evaluation of students' work on an assigned project. The work is scored using a rubric.	Direct
Reflective Essay	Reflective essays used to determine students' opinions and perceptions.	Indirect
Survey - Alumni	An assessment based on the surveying of program alumni. Alumni surveys can provide information about program satisfaction, preparation (transfer or workforce), employment status, and skills for success. Surveys can ask alumni to identify what should be changed, altered, maintained, improved, or expanded.	Indirect
Survey - Employee	An assessment based on the surveying of unit employees. Employee surveys can provide information about satisfaction levels and can ask employees to identify what should be changed, altered, maintained, improved, or expanded.	Indirect
Survey - Employer	An assessment based on the surveying of employers to determine if graduates are satisfactorily skilled. Additional information collected can include on the job skills, or field specific information.	Indirect
Survey - Exit	An assessment of a student's overall satisfaction with his or her collegiate experience and learning.	Indirect
Survey - Student	An assessment based on the surveying of students designed to collect perceptions of their college experiences.	Indirect
Writing Assignment	An evaluation of students' work on written assignments or essays. The work is scored using a rubric.	Direct

Source: Saddleback College, 2015.

Formative Assessment *for* Learning

Formative assessment is believed to have the greatest impact on learning and is used to track learning *during* a lesson or unit in order to gather evidence for the purposes of informing the next step in the instructional lesson plan. Ideally, formative feedback from an instructor provides a student with information about his/her progress while also providing suggestions for improvement. Formative assessment is conducted in a timely manner in order for the student to have the time needed to take the steps necessary to improve his/her skills and knowledge before completing the course.

Formative vs. Summative Assessment

Formative: Assessment <i>for</i> Learning	Summative: Assessment <i>of</i> Learning
Measures a few things frequently	Measures many things infrequently
Identifies which students have learned a skill and which have not so that those who have not can be given additional instruction	Attempts to determine if students have learned and met intended standards by a specified deadline
Descriptive feedback	Evaluative feedback
Continuous	Periodic
Not usually graded but observed and noted	Graded
Provides students with input on how to improve	Provides useful information regarding strengths and weaknesses of courses and programs
Can inform teachers individually and collectively of the effectiveness of their practice	Promotes institutional accountability
Greatest impact on learning/achievement	Lowest impact on learning/achievement

The Assessment Cycle: Analyze Results

Source: Long Beach City College. Retrieved from <https://docs.google.com/document/d/15dozjNxc2aH5vUQKHixyGxLdXHtvTEfEh3WEqLNHyDo/edit>

The discussion questions below are a useful guide for analyzing your assessment results and for collaborating with colleagues on designing an action plan for improvement.

Student Learning Outcomes

- Were the SLOs that were assessed core outcomes for the course? That is, did they describe the knowledge, skills, abilities, and/or values that the discipline feels all successful students should take away from the course?
- Were the students made aware of the SLOs prior to the assessment? If so, how?

Assessment Methodology

- Did the assessment questions or assignments assess the SLOs? That is, did student performance on these provide strong information about how well students achieved the SLOs in the course?
- Were the assessment questions or assignments clearly worded?
- Did the classroom experiences align with or support the intended course SLOs and the assessment task so that students were prepared to succeed in the course?

Assessment Process

- Was the communication about the expectations of the assessment process clear and given early enough to all instructors of the course who participated in the full- scale implementation?
- Was the assessment administered with reasonable uniformity across all sections (e.g., approximately the same time frame of the semester, similar explanations to students, etc...)?
- Did instructors understand how to aggregate the data according to department protocols?

Assessment Results

- Describe the kind of evidence that was collected to evaluate student learning as stated by the SLO. Is the data adequate to establish key findings and draw conclusions?
- Has all the evidence been collected and documented? Is there any data missing or incomplete?
- Looking at the results, how many students met or exceed the stated SLOs expected level of achievement? What key findings can be attributed to this result?
- Were there students who were not assessed? Are the numbers of non-assessed students a significant factor in the overall success of the course or program being assessed?

- What overall key findings can you draw from the results? Are there significant patterns or trends in the data?
 - For instance, for the students who met or exceeded expectations, were there circumstances that allowed them to succeed?
 - For students who did not meet expectations, what circumstances affected their performance?
 - Did students do better on some elements of the assessment as opposed to others?
- Based on the key findings, what conclusions can be drawn in regards to what worked well or did not work well in the course or program as reflected by the data?
- **Look for Patterns of Consistency.**
 - Study data from the same outcome over a period of time. For instance, track aggregate data on student performance from semester to semester (or year to year).
- **Look for Patterns of Distinctiveness**
 - Examine the data across outcome categories. For instance, a program's faculty may examine performance on three course or program-level outcomes and notice that some of the outcomes reflect significantly higher or lower performance than others. These discrepancies indicate what areas may need attention and from what areas exemplary practice may be modeled.
- **Look for Patterns of Consensus:**
 - Disaggregate the data to see if all of the course or program's communities of interest achieve (or in the case, of a survey, rate an item) at the same level. For instance, faculty might choose to break down data by gender, first-generation students, non-traditional students, ESL students, or other significant populations in the course or program's community. This provides an opportunity to examine whether simple aggregate data masks performance differences or feedback from a significant population in the community. Reporting an average score on a course or program outcome measure may hide the fact that one segment of students is not performing as well as another segment of students in the course or program.

Derived from Crafton College (Gary Williams) and Montgomery College 7/20/09; Updated 1/24/14.
Derived from: Crafton Hills College, Gary Williams; Montgomery College; *The Departmental Guide and Record Book for Student Outcomes Assessment and Institutional Effectiveness*, Nichols & Nichols. Updated 12/16/2013

The Assessment Cycle: Share Results

ACCJC Standard I.B.I requires that “The institution demonstrates a sustained, substantive and collegial dialog about student outcomes, student equity, academic quality, institutional effectiveness, and continuous improvement of student learning and achievement.” Share the results with colleagues and collaborate on designing an action plan. The next section provides ideas for how results may be used to improve a course, course sequence, or program.

The Assessment Cycle: Identify and Implement Changes

Examples of Changes that *May* be Implemented as a Result of Analyzing Results

Changes to the Assessment Plan	<ul style="list-style-type: none">▪ revision of intended learning outcomes▪ revision of measurement approaches▪ changes in data collection methods▪ changes in targets/standards
Changes to the Curriculum	<ul style="list-style-type: none">▪ changes in teaching techniques▪ revision of prerequisites▪ revision of course sequence▪ revision of course content▪ addition of courses▪ deletion of courses
Changes to the Academic Process	<ul style="list-style-type: none">▪ revision of advising standards or processes▪ improvements in technology▪ changes in faculty staffing▪ changes in frequency or scheduling of course offerings

(Source: University of Central Florida, 2008)

The Assessment Cycle: Close the Loop

“Closing the Loop” involves the process of using assessment results to inform the improvement of a unit, instructional method, course, course sequence, program, etc. by completing all of the tasks in the assessment cycle ***and then assessing any changes made to improve a course/program/unit.***

In their discussion on the purpose of assessment, Kinzie, Hutchings, and Jankowski (2015) make a clear distinction between simply *doing assessment* and *using results*. They point out how:

Doing assessment, simply performing assessment activities, is not the same as using assessment results. Considerable assessment activity can occur at a college or university—administering standardized tests to all students, documenting pass rates on licensure exams, writing reports about the results, for example. **Until the institution uses the assembled evidence to answer questions about educational quality—about what students know and can do—and then uses the answers to guide change leading to improvement, it is just doing assessment”** (p. 56).

They go on to emphasize that “assessment’s true aim is using results, *harnessing evidence* to inform educational improvements” (p. 56).

How Often Should a Course SLO be Assessed?

From Long Beach City College (LBCC):

Frequency of Assessment: LBCC’s OAC suggests that if a large number of students will be completing a course, this course would be important to assess frequently to ensure that all the students are learning what they should be learning across all sections of the course.

Prerequisite courses or courses with prerequisites: LBCC’s OAC poses the following questions to consider: Does your department offer pre-requisite courses or courses that students can only enroll in if they have already taken pre-requisites? Do you feel like some of your courses should have pre-requisites? Consider including some of these courses in your assessment plan this semester.

Sequences of Courses: LBCC’s OAC recommends looking at a sequence of courses, which could reveal more information about the sequence. For instance, students may be passing the course and moving up in a sequence of courses, but were they prepared for the next course or was there an area that

should have been covered more in the previous course? For courses where you believe there should be a prerequisite, this could be an opportunity to collect data that could be used as evidence to support your claim.

Analyzing Results: LBCC notes that if the data has been collected for multiple semesters but has yet to be analyzed, this would be a good semester to get your department together to examine the data and talk about it.

(Retrieved from <http://archive.lbcc.edu/outcomesassessment/newslo.cfm>)

SLO Activities to Report on for Annual Unit Planning and Program Review

Each department/discipline will be responsible for reporting on SLO activities for annual unit planning and program review using the questions included below.

1. Describe any changes (e.g., addition/deletion of SLOs, postponement of assessments) your department has made to your SLO assessment cycle. Include a brief description of why these changes were necessary. **Changes may include reassessment of SLOs requiring further attention.**

2. Give examples of how your department/unit has used SLO assessment results to improve a course, course sequence, and/or program over this program review cycle. In your narrative, please pay particular attention to assessment of courses that directly lead to a certificate/degree/transfer (e.g., English 120, Psychology 120) and/or constitute a high enrollment course. For help with this prompt, please see the chart below:

Examples of Changes that *May* be Implemented as a Result of Assessment

Changes to the Assessment Plan	<ul style="list-style-type: none"> ▪ revision of intended learning outcomes ▪ revision of measurement approaches ▪ changes in data collection methods ▪ changes in targets/standards
Changes to the Curriculum	<ul style="list-style-type: none"> ▪ changes in teaching techniques ▪ revision of prerequisites ▪ revision of course sequence ▪ revision of course content ▪ addition of courses ▪ deletion of courses
Changes to the Academic Process	<ul style="list-style-type: none"> ▪ revision of advising standards or processes ▪ improvements in technology ▪ changes in faculty

	staffing <ul style="list-style-type: none"> ▪ changes in frequency or scheduling of course offerings
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3. What resources (time, professional development, curriculum approval process, etc.) did you need to carry out these improvements? Please explain.
4. What evidence did you collect to demonstrate that the planned improvements were successful? If you have yet to assess the improvements, what evidence do you plan to collect?
5. How will you use this evidence to ensure ongoing course/course sequence/program improvements are sustained?

Five (Mis) Perceptions about Assessment and Some Responses

Source: Roberts, J.E. (2008). Student Learning Outcomes in NOVA Programs and Classrooms.
https://www.nvcc.edu/assessment/_docs/PS1.SLOsinNOVAprogramsandclassrooms.pdf

1. We're doing just fine without it. Assessment is medicine for the sick only.
Okay, then let's use assessment to find out what works, and to help us document and build on our success.
2. We're already doing it. Assessment is just old wine in new bottles.
Okay, then let's audit all the assessments we already do to discover what we know and what we don't.
3. We're far too busy to do it. Assessment is an administrative burden.
Okay, but since we're already doing it, let's use assessment to see where and how we can save time and effort.
4. The most important things we do can't/shouldn't be measured. Assessment is too reductive and quantitative.
And not everything measurable should be measured, but let's see if we can agree on how we can tell when we're succeeding in these most important things.
5. We'd need more staff and lots more money to do assessment. Assessment is too complex and expensive.
Since we're unlikely to get more resources, how, what, and where can we piggyback, embed, and substitute?

Eight Questions that Assessments Can Answer

(Source: Linda Suskie, Middle States Commission on Higher Education as cited in https://www.nvcc.edu/assessment/_docs/PS1.SLOsinNOVApogramsandclassrooms.pdf)

1. Are our students meeting our standards?
2. Are our students meeting external standards?
3. How do our students compare to their peers?
4. How do our students compare to the best of their peers?
5. Are our students improving?
6. Are our teaching and curricula improving?
7. Are our students doing as well as they can?
8. What are our students' relative strengths and weaknesses?

Helpful Resources on Outcomes Assessment

(Last Updated on August 31, 2017. Please refer to the Outcomes Assessment website for additional information and resources available.)

<p>Academic Senate for CA Community Colleges (Presentation Materials from the SLO Symposium held in January 2017)</p>	<p>http://www.asccc.org/events/2017-02-03-163000-2017-02-03-230000/student-learning-outcomes-slo-symposium</p>
<p>Assessment Commons</p>	<p>http://assessmentcommons.org/</p>
<p>Community College Resources</p>	<p>Bakersfield College: http://www2.bakersfieldcollege.edu/courseassessment/ City College of San Francisco: https://www.ccsf.edu/en/about-city-college/slo/reports.html El Camino College: http://www.elcamino.edu/academics/slo/ Long Beach City College: http://www.lbcc.edu/OutcomesAssessment/ Northern Virginia Community College: https://www.nvcc.edu/assessment/docs/PS2.writingandmappingSLOs-1.pdf Santa Rosa Junior College: https://slo.santarosa.edu/</p>
<p>Other College/University Resources</p>	<p>Georgia Tech (Guidelines for Writing Program Outcomes): https://www.assessment.gatech.edu/resources/guidelines-for-writing-program-outcomes/ University of Hawaii at Manoa: http://manoa.hawaii.edu/assessment/ Virginia Tech Assessment Resources: https://assessment.vt.edu/Assessment_Resources.html UCSD http://academicaffairs.ucsd.edu/ug-ed/asmnt/</p>
<p>National Institute for Learning Outcomes Assessment (NILOA)</p>	<p>http://learningoutcomesassessment.org/PrinciplesofAssessment.html</p>
<p>Principles for Effective Assessment of Student Achievement (Supported by both national higher education associations and regional accreditation commissions)</p>	<p>http://learningoutcomesassessment.org/documents/EndorsedAssessmentPrinciples_SUP.pdf</p>

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