SLOs 2.0 AT RIO HONDO COLLEGE

Refining and Expanding the Model
Standard IIA2b.: The institution relies on faculty expertise and the assistance of advisory committees when appropriate to identify competency levels and measurable student learning outcomes for courses, certificates, programs including general and vocational education, and degrees. The institution regularly assesses progress towards achieving those outcomes.
Needs for Institutional SLOs

- General Education SLOs must be developed
  - Our “Institutional SLOs” essentially are G.E. SLOs
  - “Is the General Education Program assessed as an institutional assessment or as a multi-disciplinary program? It depends upon the campus culture and organization.” - Janet Fulks, Assessing Student Learning in Community Colleges (2004), and Member of Rio Hondo WASC/ ACCJC Accreditation Team
Proposed Structure of SLOs at Rio Hondo College
General Education SLOs

- GE SLOs will be developed by small teams consisting of experts in the area.
- At least one team member should be a member of the SLO committee.
- I will participate as a team member as well to the greatest extent possible.
- GE SLOs should, where possible, draw from existing “Program-level SLOs”.
  - PSLOs are effectively being replaced by GE and/or Degree SLOs in most academic areas in this model.
General Education & Basic Skills Areas

- Writing
- Reading
- Mathematics
- Physical Education
- Natural Sciences
- Social and Behavioral Sciences
- Humanities
Example of GE SLOs

**Mathematics**

GE SLOs for this area could include

- Students will translate real and/or practical problems from text into a mathematical expression and determine a correct solution or set of solutions.
- Students will interpret visual depictions of data (e.g. graphs, charts, etc.) to determine the solution of a given problem.
- Students illustrate mathematical data in a graphical form appropriate to the given situation and/or problem.

Etc.
A substantial subset of students at Rio Hondo are enrolled in Basic Skills courses.

GE SLOs are mainly designed for assessment in transfer-level courses.

Basic Skills SLOs will be developed by the GE groups which address the reading, writing, and numerical analysis domains.

The resulting three sets of Basic Skills SLOs may be closely based on GE SLOs, but are intended to measure students’ abilities to master the skills necessary to engage in college-level work.
Degrees and Certificate SLOs assess the following, fundamental question:

“Upon completion of a given degree or certificate program, what skills/abilities should students be able to demonstrate?”

Coursework is a necessary, assessable component of the completion of the degree, so most measurement will likely occur at the course-level.

However, other opportunities for assessment may exist outside the classroom.

Further discussion and development of these SLOs will commence in Fall 2009.
Role of Course-Level SLOs

- Basic Skills
- General Education
- Course-Level SLOs
- Degrees
- Certificates
- Non-Credit/Community
Designation of Course-Level SLOs

- Course-Level SLOs will be categorized into the following general categories:
  - SLOs linked with a General Education or Basic Skills SLO
  - SLOs adopted from a GE or Basic Skills SLO
  - Degree or Course Specific SLOs
  - Course Specific
SLOs Linked with

General Education or Basic Skills

- These SLOs will be used in courses to collect information which will be used in assessment of both the course and a particular general education area.
- The text of the course-level SLO is identical to that of the GE SLO.
- Only those courses which are specifically identified by the relevant GE SLO sub-committee may be placed in this category.
- All will be evaluated using a “Proficient/Not Proficient” rubric only.
SLOs Adopted from General Education or Basic Skills

- In this context, adopt means copied and possibly modified
- These course-level SLOs are either identical to or closely based on an existing GE SLO
- Collected data is only assessed at the course-level
- This type of SLO recognizes the interdisciplinary nature of academic areas. Examples may include
  - Assessment of student writing in a history course
  - Assessment of student use and interpretation of numerical data in an economics course
  - Assessment of oral communication in the presentation of a scientific phenomenon in a physics course
- Rubric may be adopted “as is” or modified
Degree and Certificate Specific

- These course-level SLOs are used to collect information primarily in courses required only for certain majors or programs.

  - Examples: Organic Chemistry, Nursing Clinicals, Differential Equations, G.I.S., Public Safety, etc.

- The text of these SLOs is generally identical to that of a particular Degree of Certificate SLO to facilitate interpretation of assessment results at both levels.

- Strongly recommend that these be evaluated using a “Proficient/Not Proficient” rubric only.
Course-Specific SLOs

- These course-level SLOs are used to assess only a particular course or a related group of courses.
- Their scope may be of broad applicability to the course, but are not of a wider scope to programs or the institution as a whole.
- No restrictions on the rubric.
- Example for CHEM 231: Organic Chemistry II
  Students will elucidate the structure of compounds of intermediate complexity through the correct application of common spectroscopic and chemical methods.
Immediate Timeline

- Members of individual GE SLO subcommittees identified in coming weeks

- GE and Basic Skills SLOs developed by November 19

- SLOs will be disseminated to faculty to solicit opinions

- GE and Basic Skills SLOs formally adopted by SLO Committee before the end of Fall

- Beta-testing of process occurs in Spring 2010
Checklist for Writing Student Learning Outcomes

1. Have you describing something that the student will **DO**, and can be observed as described?
   (Avoid passive terms like understand. Avoid being sneaky by using a term like demonstrates an understanding of…)

2. Is it written as an outcome rather than objective?
   - Language indicates the BIG PICTURE rather than nuts and bolts
   - Asks students to **apply** their skills and knowledge by producing (writing, performing, solving, developing) something
   - Addresses student **competency** rather than content coverage

3. Is the SLO meaningful for the students?
   - Reflects the reasons students are taking the course.
   - Students comprehend the outcome as important?

4. Is the SLO appropriate for the course?
   - Represents a fundamental result of the course
   - Aligns with other courses in a sequence, if applicable
   - Represents college-level work

5. Can the outcome be measured?
   - It does not have to be quantitative assessment, but the standards should be written so that instructors in the course could agree on whether it meets the standard.

6. Other instructors:
   - Will another instructor understand the SLO?
   - Does it allow for academic freedom in teaching methods and creating assessments?
Criteria for Review of Course-Level SLOs

The series of questions below will be used in the evaluation of all course-level SLOs.

For each SLO listed for the course:

☑ Is the statement actually an outcome, or is it something else (course description, description of a particular assignment or an assessment tool, etc.)?
☑ Is the SLO measurable?
☑ Can the SLO be assessed through multiple assessment methods? (Note: it is possible that some outcomes may only be assessed by one method, particularly in vocational or performance-related areas)
☑ Is the SLO concise and well-written?
☑ Does each outcome employ verbs or verb phrases which are unambiguous as to the skills or traits being evaluated? (“Demonstrate knowledge” is an example)

For each active SLO:

☑ Are the major skill(s) addressed in the rubric split into multiple proficiency standards (criteria for evaluation) on the rubric?
☑ Do the benchmarks seem to be set at a reasonable level for each standard?
☑ Is enough information provided in the rubric to ensure that assessment of the SLO is unambiguous for all faculty members?

Considering all SLOs for a given course as a whole:

☑ Do the SLOs provide a reasonably broad coverage of the course?
☑ Do at least half of the SLOs address higher-level thinking skills (as per Bloom’s Taxonomy)?
☑ Are enough SLOs designated as active? See attached guidelines.
Guidelines for Developing Degree SLOs

Begin by considering only the courses which are required to earn the degree.

Review the course-level SLOs for these courses. For each SLO, ask yourself:

- Does this same SLO (or something similar) occur in any other courses—required or elective—for this degree?
- Does this SLO address key skills/knowledge/abilities which you would expect all students who earn this degree to possess?

If you answered ‘yes’ to these questions then you have probably identified a good candidate for a degree SLO. If you did not identify any potential degree SLOs from your existing course SLOs, try to develop outcomes which do satisfy the first two questions above. Ultimately, you should develop as many SLOs as are necessary to broadly address the major skills a student which this degree should possess.

To give you an idea as to what a representative set of Degree SLOs looks like for an academic area, consider these four (of nine) SLOs for the History degree at DePaul University:

1. Students can describe and discuss historical facts, themes, and ideas.
2. Students can identify, analyze, evaluate, and synthesize primary and secondary source evidence.
3. Students can identify and explain how the past is different from the present.
4. Students can analyze an event, source, idea, or person within its historical context.

There is much to commend these Degree SLOs. In particular,

- They are each general enough that they can be linked with a wide variety of courses.
- They include higher-level thinking skills (analyze, evaluate, synthesize).
- They are measurable and can be assessed in several different ways.
- They are well-written (although the constant use of “can” seems unnecessary).
- As a set, they broadly address a diverse set of outcomes for the degree.

You should keep these points in mind as you develop your own degree outcomes.

Before entering the SLO into the software, you should

a. Write the text of the SLO and check it for spelling and grammatical errors. Keep the SLO concise. Avoid vague phrases like “demonstrate knowledge.”

b. Come up with a set of possible assessment methods (exams, presentations, portfolios, performances, etc.)

I use the word “degree” throughout this document to include both degrees and certificates.
c. Determine whether or not the outcome should be linked with courses. This should always be the case unless the SLO requires achievement of some goal outside of the campus such as passing a vocational exam or obtaining employment.
d. Determine which courses will be linked with the SLO.
e. Decide whether or not the SLO will be in “active” status. All active SLOs must have a rubric. Sketch out the rubric before you put it in the software to minimize errors.

A few final points:

It is not possible to directly copy a course SLO to a degree SLO. Copying can only be done from program to course, not the other way around. This means that if you want to use an existing course SLO for a degree you will need to re-enter it manually into the system. However, to avoid having identical SLOs in the same course, it is possible to have the data in the original course SLO transferred to the new degree SLO so long as the rubric you create has the same number of rows/standards and either the same rubric scale or one with fewer columns (that is, you can change the scale from “Outstanding, Satisfactory, Unsatisfactory” to “Proficient/Not Proficient”, but not the other way around). This cannot be done directly in the system; email Matt Koutroulis for help on this.

If you have a degree and a certificate in the same area for which you plan to have the same SLOs, only work on one or the other to begin with. Once you have the SLO developed for the degree, it can be linked to the certificate as well.

Instructions explaining how to enter these SLOs into SLOlutions and link them with courses can be found on the SLOlutions website. Click on the “Resources” tab, then click on “Creating and Linking Program SLOs.” For more information on creating rubrics, click on “SLOlutions Primer”; the instructions in this document for creating a rubric for a course-level SLO are essentially the same as those for a program-level SLO.
Guidelines for Writing SLO Assessment Reports

Assessment reports for SLOs address several important issues, and include

- The results of the quantitative data submitted in each section
- Any specific comments or qualitative data the faculty may have submitted regarding student performance on that outcome
- Assessment methods commonly employed for this outcome
- How the faculty interpret the data
- What actions will be taken to raise student success on this and related outcomes
- What additional resources are required to support these actions and ultimately increase student success

Assessment reports should be completed on a regular basis for each active SLO. Ideally, for courses which are taught every semester, a report should be created for each active SLO once per year. Reporting should occur less often for courses which are taught on an annual basis. Reports should usually be written for active higher-level SLO (degree/certificate, general education, and student services) every year. The time required to discuss assessment results and write thorough reports should be carefully considered in determining the number of active SLOs for a given course.

Reports for Course-Level SLOs

Once course data has been collected, a summary of the data can be viewed in SLOlutions by

1. Clicking on “Course Outcomes”
2. Clicking on “View Assessment Results and Create an Assessment Report”
3. Selecting the department and then course on which you would like to report
4. Selecting the semester(s) which you would like to include in the data (to select more than one semester, hold down the control (Ctrl) key while clicking on the semester)
5. Clicking on the SLO in the displayed table

You should now see a summary of the course data. You may create a PDF file containing both quantitative and qualitative sections by clicking on “Create PDF”.

At this point, you should share the data with colleagues. Your discussion should address all of the following points:

Assessment Methods:

- Do the listed assessment methods accurately describe how the SLO was assessed?
Inferences:

- What information can you glean from the quantitative data and the instructor comments?
- Do the results appear to be accurate?
- Do the percentages of students demonstrating proficiency seem consistent with your own results and those of other faculty?
- If the data appears to be skewed in some way, what factors may have contributed to it?
- Were the benchmark values for each proficiency standard (i.e. rubric row) reasonable?
- What is the main “takeaway” message(s) of the data?

Action Plan:

- What changes in instruction/delivery do you propose to increase student success on this outcome if the results are not satisfactory? Will these changes be applied to all future sections of this course or a select trial group?
- If student success rates meet the benchmarks for this outcome, can the benchmark values be raised? If so, suggest the changes needed to achieve these new goals.

Resources:

- Which resources currently available to your area (your local resources) will need to be reallocated to implement the action plan? These resources may include budgeted funds or existing grant monies, increased class time in department computer labs, reallocation of teaching space and equipment, etc.
- Which of the following resources which fall outside of your area’s standard budget are needed to implement the action plan?
  - Facilities: Allocation of space not currently available to your area, repairs of basic infrastructure, dedicated office space for meeting with students
  - Financial: Money for purchases, either from District money or other sources, including Foundation funds or grant funds which are broadly available across campus
  - Human Resources: Additional faculty or support staff
  - Technology: Computers, iPads, specialty software, projectors, multimedia equipment, or repairs to area equipment

*Keep in mind that resources may be requested even though students may be proficient on an outcome if the goal is to raise student performance to higher levels!*

To complete the report in SLOlutions, carry out steps one through five above, then

6. Click the “Continue” button
7. Fill in the text boxes with statements/narratives based on your earlier discussions. Do not use the “Back” button on your browser, or you may lose all the text that you have entered!
8. If you wish to request non-local resources (facilities, financial, etc), click on the “Request Resources” button. Then, scroll back to the bottom of the page and complete the resource request. Identify the type of resource, an approximate dollar amount (do not enter commas or symbols!) and provide a concise justification for the request. These requests will be considered later as part of the College’s annual planning process and program review. You may click the “Request Resources” button again if you want to request additional resources. Please be careful as you enter requests as there is currently no method in the software to edit them once they have been submitted.

9. Proofread your report, then click “Save.”

Editing and Printing the Report

You may edit the assessment report by clicking on “Edit an Assessment Report” on the “Course Outcomes” menu, identifying the department and course, selecting the SLO covered in the report, then selecting which report you wish to edit (by semester). Unfortunately, resource requests cannot currently be edited.

The report may be printed by clicking on the “Reports” link on the home page or the sidebar, then clicking on “Print Assessment Reports.” Select “Course” as the type of SLO, select the department and course, then select the report you would like to print. You may also check the box under “Select All” to get all the reports in a single PDF file. Finally click on the “Get Report(s)” button.

In the near future an additional option will be made available for printing all assessment reports for a given department covering a specified time period. This should facilitate linking resource requests with planning and program review.

Reports for Program-Level SLOs

In general, the process for creating program-level reports is the same as that for course-level reports described above, with a few notable differences:

Program-level outcomes are often, but not always, based on course data. When viewing the summary data for those outcomes based on courses, the data is broken down by course and then summed over all sections of all courses.

For those outcomes which are not based on courses, assessment data is entered into the rubric immediately before the rest of the report is written. The report contains the same sections as the course-level outcomes. You should follow the same set of guiding questions in completing these reports, rejecting those questions which are course specific and replacing them with ones which are more finely tuned to your area.
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Primary Authors

Janet Fulks, Biology Faculty, Bakersfield College
Priyadarshini Chaplot, BRIC Project Coordinator, RP Group
Bob Pacheco, Director of Research, Development and Planning,
Barstow College
Overview of the Bridging Research, Information and Culture (BRIC) Project

BRIC is a Hewlett Foundation funded project with a general goal to help community college faculty, staff, and administrators discover or recapture passionate, thoughtful inquiry and then use it to help students. The project hopes to encourage more people to ask a wider collection of questions, and then to use their evidence and conclusions to enhance the broader student experience at their college. One tool to promote this goal is the RP Group’s collection of inquiry guides such as the one you are currently reading.

The BRIC Inquiry Guides

Collectively, the guides developed for BRIC provide a set of tools to address different areas of the college and the activities outlined in the BRIC Framework below. Where BRIC is able to serve schools directly through its Technical Assistance Program (TAP), these guides will be bolstered by facilitated conversations on the college campus during technical assistance site visits. For colleges that we are not able to serve directly through TAP, these guides can be used by the colleges to start their own campus conversations about these critical issues.

The guides have been designed to respond to the needs of college constituency groups—faculty, staff, institutional researchers, and administrators—in all areas of inquiry-based practice, including data collection and interpretation, data usage, research, planning, and evidence-based decision-making. The guides recommend best practices and strategies to promote increased and authentic use of inquiry and evidence, with suggestions for potential directions for processes, procedures, standards, and protocols. One important observation is that colleges will need to find their own fit between their campus culture and the set of possible approaches outlined in these guides. The suggestions made here are done in a spirit of collaboration and with an understanding that there are a range of tools and approaches that can result in the successful evolution of a culture of inquiry.
BRIC Framework

Institutional Domains –
What areas of the college and activities does BRIC hope to impact?

The BRIC Framework provides an organizational structure for responding to the various areas of data and information usage within a college in the following five broad domains:

- **Evaluation and Assessment**: The bundle of activities, skills, and practices a college uses to assess student learning and practices leading to student success.
- **Planning and Decision-making**: The practices a college uses to make decisions, evaluate effectiveness, and create short and long-term plans.
- **Communication**: The mechanisms and approach a college implements to communicate information at all levels and to all constituents.
- **Organizational Structures**: The processes, procedures, and policies that provide a frame or structure for college practices.
- **Culture and Climate**: The spoken/unspoken, accepted/unaccepted guidelines for behaving in a college and creating an environment that is conducive to collaboration and to effective teaching and learning.

Expected Outcomes –
What does BRIC hope to achieve?

The following five overarching outcomes are the goals of BRIC. The college will:

- **Develop Actionable Data** by applying evaluation and assessment techniques, practices, and models that are grounded in good assessment principles and result in evidence that is used to help students succeed.
- **Interpret Data through Discussion** by using research evidence and assessment data in meaningful and thoughtful discussions that leads to a wider variety of improved program interventions and classroom teaching and learning strategies.
- **Facilitate Dialogue** by employing facilitation skills in discussions of institutional research and assessment with an increased number of participants from all college constituency groups.
- **Integrate Data into Institutional Processes** by creating integrated planning strategies that are equity focused and have well-defined links to budget and other core decision-making processes.
- **Build an Inquiry-Based Practice** by developing an infrastructure for a culture of evidence that promotes thoughtful, evidence-based collaborative inquiry as a normal, ongoing activity.
The Purpose of this Booklet

This brief guide provides an overview of the student learning outcomes (SLO) assessment cycle and presents a framework to use in order to improve student learning through evidence-based assessment and analysis. All who interact with students and desire to foster student learning can benefit from the methods and practices presented in this booklet. It is designed to be a concise, easy-to-read summary of the essential principles of student learning outcomes assessment. For those professionals seeking more in-depth coverage of specific outcomes assessment topics, pedagogies, and practices, the hyperlinks within the text offer additional resources.

More importantly, this guide provides a systematic way for educators to talk about student learning. Implicit in this is our belief that SLOs are not only at the core of an institution’s continuous improvement, but also that their assessment provides a basis for improving practice and the allocation of resources. In fact, SLO assessment data should be integrated through collaborative, college-wide planning to support the goals, missions, visions, and values of the California community colleges.

Beginning the Conversation:

Throughout this guide you will find guiding questions. These questions are intended to shepherd the conversations you will have as you work through the guides. Consider these questions as prompts for robust discussions of where your institution is now and where you want it to be in terms of the assessment of student learning. Feel free to expand your conversations beyond the guiding questions so you may better capture the unique structures and qualities of your own community.

Guided Inquiry

1 Institutional Snapshot: Take a moment to think about the education your institution provides to its community, the state, and the nation. Consider the institution’s various structures and demographic profile. What important skills, knowledge, and values should graduates from this college have in common?

2 Moving Forward: Now more specifically, describe what kinds of conversations take place on your campus about outcomes assessment? Is there broad dialog about what students should know and be able to do within courses, programs, student services, administrative units, and the institution as a whole? What constituencies have been involved (e.g., instructional and student services faculty, administration, classified, trustees, students)?
Why Do We Assess?

The student learning outcomes assessment process is a method we use to continuously improve what we do as educational experts by looking directly at student work. Assessment helps us implement and evaluate strategies that respond to the diverse needs of our students and to meet ever-changing community and workforce demands. Successful assessment practices improve the effectiveness of our institutions by:

- Measuring how and what students learn
- Developing new and varied educational experiences that our students need to develop their talents and abilities
- Revealing whether our students master the skills and knowledge that our courses and programs promise

These assessment practices also help us determine whether adjustments and interventions we have made in our courses or student services actually help students succeed. They provide the empirical data and the critical reflection that validate our effective teaching practices.

There are four overarching principles to guide these purposes of assessment.

- Assessment is a collaborative, dynamic, and continuous process to improve courses, degrees, certificates, and programs. It is in the dialogue among practitioners where the seeds of true institutional improvement are sown.
- There is a considerable difference between using data for accountability and using it for institutional improvement. While there is a call for accountability by the public, accrediting agencies, federal and state governments, the onus is on the institutions to evaluate themselves to assure quality education for our respective communities and to place value on improvement through reflection on assessment data.
- A focus on learning is the goal of teaching, research, and educational leadership. All professionals who interact with students play a critical role in the way students learn and develop as individuals.
- Assessment is integrated in our daily classroom and service practices and not something over and above what we already do. The solution lies in striking a balance between making the process thoughtful and meaningful rather than simplistic and compliant while still dealing with the reality of our already taxed workloads.

Guided Inquiry

1 Institutional Snapshot: Based on your reading of the section “Why Do We Assess?” describe how your institution addresses the bulleted list of principles.

2 Moving Forward: How could these overarching principles be integrated into your current college culture?
Community colleges today are faced with a series of important questions:

- How do we know what students are really learning?
- Are the teaching practices used today equally effective for diverse students?
- How do we improve our practices to address student success?
- Are we assessing whether students can apply information to real world applications?

Clearly it is important to articulate what students should learn and be able to do, in order to assess whether and what students are actually learning. With carefully documented outcomes, direct assessments inform adjustments, improve our practice, and increase student success.

This cycle of student learning outcomes and assessment has a long history. In the early 1990s, a growing emphasis on regular improvement in education, coupled with accountability for funding, resulted in a perspective shift nationwide. As it became apparent that improving education required more than just simple metrics attached to funding, an educational paradigm shift emerged, moving from teaching-centered strategies (which focus on what we invest in a class or a student interaction) to learning-centered strategies and learning outcomes (which indicate what the students have gotten from the class or a student interaction). Real-time assessment became essential to improving education, located as it was at the interface of teaching and learning. This shift of focus was also evident in accreditation practices. In 2002 the Accrediting Commission for Community and Junior Colleges (ACCJC) adopted SLO assessment standards, and these standards must be fully addressed by 2012. Previously college quality was judged by the use of resources, but the new accreditation standards determine quality not by teacher/resource input, but rather student output—what they have learned and what they can do.

At the heart of student learning outcomes and assessment is a simple question: “Are students truly learning and acquiring skills and values, and how do we know?” The important answer to this question is our motivation for student learning outcomes assessment. To find the answer we engage in a self-reflective process concerning our practice, whether it is in the classroom, in a student service interaction, in the library, or on the athletic field.

In fact, student learning outcomes assessment should become a professional habit, one of evaluating our own work. We look not at what we put into it, but what students take away from it. In order to conduct this type of assessment we should examine not only our own content and delivery, but also what students take away from our classes. The SLO assessment process moves our work away from intuition and our past experience to individual self-reflection, formalized assessment, collegial discussion, and evidence-based improvement. At the core, this is a process focused on student populations, not
individuals, and on improving practice, not evaluating individual employees.

For more on the history of student learning outcomes assessment, see:
http://online.bakersfieldcollege.edu/courseassessment/Section_2_Background/Section_2_WhatAssessment.htm

**Guided Inquiry**

1. **Institutional Snapshot:** What kind of reflective processes do you currently use to assess whether students have learned something?

2. **Moving Forward:** How do you translate student learning into improving your professional practice?
The learning outcomes assessment process builds an environment of good educational practices that enhance student learning through the improvement of programs and services. This occurs through both formative and summative means. Formative assessment uses immediate or intermittent feedback to guide the student to improve learning towards a final outcome. Summative assessment, on the other hand, is the final analysis of students’ knowledge, skills, or attitudes in a course or program and reviews the cumulative learning at the conclusion of this learning experience.

Assessing student learning enables us to systematically inform ourselves and students about what is happening in courses and programs. From there, we can reframe, modify, or redesign existing courses, programs, services, and teaching practices. Additionally, it enables us to determine the effectiveness of a given educational experience (e.g., a course, a program, an institution). Through the assessment process, educators can engage in dialogue about what a successful student looks like (e.g., what they should know or be able to do). Within these discussions, educators can also determine what is important to them and decide how a set of educational experiences (i.e., a course, a program of study) can contribute to student learning. Through self-reflection and collaborative inquiry, the learning outcomes assessment process can facilitate a shared vision for student success.

While the benefits of learning assessment efforts are apparent, the assessment cycle also requires awareness and additional resources. Though assessment can stem from existing practices and provide a systematic framework in which improvement can be made, it also asks faculty and staff to prioritize this task in their already taxed workload. Additionally, the reflection that necessarily follows the assessment phase requires practitioners and institutions to both carve out time for analysis and evaluation as well as provide the relevant support necessary for effective practice (e.g., support for institutional research, IT, and SLO coordination). Finally, the institution must create the infrastructure for ongoing and campus-wide dialogue surrounding the findings and the actions stemming from these results. Note that a truly healthy and engaged space for discussions about institutional improvement through the assessment of learning outcomes must address the perceived relationship between SLO assessment and faculty evaluation.

**Guided Inquiry**

1. **Institutional Snapshot:** What institutional practices should connect to and embed assessment of student learning outcomes?

2. **Moving Forward:** Which existing institutional infrastructure or activities can be leveraged to offer additional opportunities for dialogue surrounding the assessment process?
Six Building Blocks to Assessment

As institutions move through the assessment process, there are six fundamental steps that serve as the building blocks that need to be reviewed to assure continuous quality improvement. The steps are seamless and interconnected to assure a unified, cohesive outcomes process.

This guide links each phase of the process with guiding principles to help practitioners review the elements of the prior stage, address the issues at the current stage of assessment, and set a foundation for the subsequent stages of the assessment process.
I. BUILDING BLOCK #1 – RESEARCH & REFLECT ON OUTCOMES

This process involves a recursive and in-depth look at the aspirations of the institution and its students. It also includes research that compares what other colleges, professional organizations, and discipline groups define as essential. At the outset of the assessment process, it is critical to reflect on student learning at all of the levels of learning—course, program (instructional and student services), and institutional level. This should be an inclusive process where all campus constituents are involved in the conversation to assure that relevant student issues are identified. The faculty plays the central role in the outcomes process since the primary responsibility for teaching and learning lies within the classroom and student services. Importantly, however, effective decision-making involves all departments and units of a learning institution; all stakeholders in student learning should participate in the process. After all, sustainable assessment is a collaborative endeavor and college-wide improvement occurs when all areas of the college are involved in generating their own solutions—not simply accepting uniform answers from outside the college. Those involved in the reflection and research stage of the assessment process should discover the pressing learning issues and develop the relevant questions about how students learn. Specifically, the reflection process considers:

- The skills, knowledge, abilities, and attitudes to be learned from a course, degree, certificate, instructional program, or student service program
- The way that mastery of the outcomes is defined
- The way we improve practice after we have measured student learning

After this internal reflection takes place, it is essential to look outward and verify that you have included the important elements as identified by other colleges or discipline experts. This exploration helps to make the work simpler. For instance, when creating institutional outcomes and assessment, survey the landscape to see what other institutions are doing. When developing course outcomes and assessment practices, it can be very helpful to go to professional organizations and statewide discipline groups to compare their focus with yours. Then:

- Align the key elements that other colleges and organizations have stated as important knowledge, skills, and values
- Review the uniqueness of the students at your institution and identify what may require additional areas of outcomes focus
- Define framed outcomes and assessment processes with rigor equivalent to similar institutions, programs, and courses
- Look to any outside agencies that define knowledge, skills, or values that must be considered (e.g. nursing, business, or engineering boards; ICAS literacy and math competencies, or discipline groups such as AMATYC, ECCTYC, CATESOL, CRLA, NABT etc)
II. BUILDING BLOCK #2 – DEFINE MEASURABLE SLOs

Learning outcomes provide the guiding beacon for instruction and student and administrative services interventions. Specifically, a student learning outcome defines observable or measurable results that are expected from the student at the end of a learning experience. SLOs address the knowledge, skills, or attitudes of students that relate to the cognitive, behavioral, and affective domains of established taxonomies of learning (e.g., Bloom, Webb). More importantly, SLOs are the overarching result of a course, program (including student services), degree, or certificate. To reach an outcome, students master many discrete and individual skills, called objectives, to produce a final demonstration of integrated and complex learning outcomes. Thus, outcomes are larger than course objectives. Note that grades differ from SLOs because grades focus on individual students and include many components within a course often without linkage to outcomes. The SLO process is a class-focused one and ultimately aligns with institutional practices and outcomes.

Specifically the SLO process asks:

- What should a student know, be able to do or value at the end of the course, program, student service, or institutional experience? (Reference: http://online.bakersfieldcollege.edu/courseassessment/Section_3_SLOs/Section3_1.htm)
- Are these outcomes consistent with real world applications? (i.e., are they ‘authentic’?)
- Do these SLOs reflect major professional and discipline concepts associated with this course of study?
- Are the SLOs measureable? (i.e., can meaningful conclusions be made about the outcomes?)
- Do the SLOs measure higher level learning as exemplified by Bloom’s taxonomy? (References: http://www.learningandteaching.info/learning/bloomtax.htm or http://uwadmnweb.uwyo.edu/wyhpenet/wahperdhandouts.htm)

Guided Inquiry

1. Institutional Snapshot: Describe what outcomes and assessment strategies your institution has developed to measure learning at the institutional, program, and course levels.

2. Moving Forward: Based on your description of the above, what might your logical next steps be in your development of effective assessment structures?
III. BUILDING BLOCK #3 – DEFINE AND CONDUCT ASSESSMENT

Learning assessment refers to the methods used by an instructor or program professional to generate and collect evidence to evaluate processes, courses, and programs. Importantly, assessment is not one single test, paper, event, or result. Rather, assessment is a process that generates a continual flow of evidence to demonstrate student learning and to suggest areas in which programmatic and course level improvements can be made.

The measurement of learning produces data, or evidence, in the form of scores, observations, and results. Data for data’s sake does not help the assessment process along and it is easy to get lost in the wealth of evidence available and in the lexicon of educational measurement terms. Thus, the data gathered must be manageable and directly tied to decision-making at a variety of levels. The evidence can be either quantitative (capable of numerical manipulation and analysis) or qualitative (performance or observation-based experience). The type of evidence collected will depend on the questions being asked. Consider the old adage “what you measure is what you get.” Clearly the design of the assessment must be carefully considered so that it addresses the validity and reliability of the results. Effective assessment design is often informed through a successful relationship between the faculty/student services practitioners and the institutional researcher(s).

A critical concern for assessment is how to keep the process manageable, yet still worthwhile. As one professional puts it, “How do you balance rigor and reality?” All educators have demanding schedules and duties, and it is essential to integrate assessment whenever possible into existing practices and assignments so that faculty and staff are not overburdened. Embedded assessment, as it is called, occurs within a regular curricular or programmatic activity. Assignments are linked to student learning outcomes through primary trait analysis and assessment instruments are used to inform grading.

When creating effective assessment opportunities, ask:

- Does the assessment design assure mastery of the content as described in the SLO?
- Do assessment methods mirror real world situations?
- Are there opportunities and flexibility in assessment methods for all students to show their mastery of the SLO?
- Are the assessment results consistent if administered over time?
- Where and how will the assessment results be recorded and stored?

Guided Inquiry

1 Institutional Snapshot: What embedded assessment strategies are already being used or can be integrated into your classroom/program practice?

2 Moving Forward: Describe the infrastructure for assessment that your institution already has in place. What do you need to support your assessment processes?
IV. BUILDING BLOCK #4 – ANALYZE THE RESULTS

The next step in the process is to interpret and analyze the assessment results. This stage looks at the snapshot of our class or program resulting from the assessment data and describes what students are learning. Assessment results show two kinds of student performance: 1) an absolute level of achievement or “mastery” and 2) growth as a result of a course or program. The key here is to match the assessment measure to the information desired.

**Absolute achievement or mastery** measures student attainment against a set of criteria established by the faculty/student services practitioner. A student’s work is examined to determine whether work is, for example, advanced, proficient, basic, or below basic performance. If the goal is to measure student mastery of a concept, then a criterion-referenced design using a rubric would be an appropriate assessment measure.

**Growth or value added**, on the other hand, sets baseline levels of performance, implements an intervention or a lesson design, and then retests the performance level afterwards. Each student’s growth can be measured to see the relative impact of the intervention or lesson. For growth analysis, a pre-test and post-test research design might be used to provide a direct comparison of student work to measure improvement.

Each assessment design has its strengths, weaknesses, and limitations regarding the conclusions that can be drawn from the results. For example, in a criterion-referenced analysis, it is critical to ensure that the reviewers of the student work evaluate the product in the same way (sometimes called “norming” or “inter-rater reliability”). As with all analysis of human conduct, it is rare that the results will show a direct cause and effect relationship—so it is important not to assume one. It is impossible to consider all of the factors that improve or hamper success. Yet, the assessment process does chip away at the hurdles to learning, and in this way, increases the body of knowledge and helps us better understand the learning process.

When analyzing assessment results, consider the following issues:

- The practitioner who will be part of the dialogue about the results
- Any critical factors that relate to the context of these results
- Whether the assessment results confirm or challenge existing assumptions
- Potential trends or patterns that may appear over time
- The way the results may be used to inform teaching, learning, and/or services
- Mechanisms necessary for the college to follow up on the results
- Communication and distribution of the data, interpretations, and necessary improvements
V. BUILDING BLOCK #5 – REPORT THE RESULTS

The assessment process needs to be distributed in a final document or file that allows easy review and analysis by the decision-makers who will look at the outcomes in order to promote change. While assessment reports differ from college to college, there are some guiding principles for a final assessment report. Specifically, assessment reports should:

- Identify the true purpose of the assessment
- Be useful and helpful to decision-makers
- Tell the story of outcomes assessment effectively
- Focus assessment summaries on decisions that the results can inform
- Celebrate and publicize good assessment results
- Identify areas of improvement or further inquiry
- Be created in a sustainable format—simple, easily completed, read, interpreted, and organized

As with the design of the assessment itself, the generation of the final report varies on the level of the assessment and reporting. At the program and institutional level, it is beneficial to have a common template for the report developed collegially through a working relationship between the faculty/student service practitioner and the institutional researcher(s).

Particularly, when publicly reporting assessment results, make certain:

- The overall message is one that is judgment-free and stimulates professional reflection
- The reports adequately reflect what was planned in the assessment design
- That privacy is maintained, for both students and professionals
- The reports are disseminated to all who can use the evidence to make improvements
VI. BUILDING BLOCK #6 – IMPROVED PRACTICE

The ultimate goal of the assessment process is continued quality improvement in what we do as learning professionals. Assessment guides our unyielding search for effective methods, critical strategies, and pedagogies that are shown to maximize student learning. Assessment is designed to promote positive change both in student performance and in our own work product.

When examining the improvements to practice, consider:

- How instruction could be modified to improve courses
- How to provide better feedback to students to improve results
- Programmatic changes to address desired outcomes
- Processes for integrating outcomes results into program review, or influencing discipline, departmental, or unit priorities
- Linking results to inform integrated planning and resource allocation

Guided Inquiry

1 Institutional Snapshot: Describe how your institution uses the learning outcomes process as a continuous improvement feedback loop. What challenges exist to implementing full assessment cycles at your college? Describe how your college incorporates assessment results into integrated planning and resource allocation.

2 Moving Forward: Given your answers above, how might you develop a collaborative and integrated assessment process at your institution? What existing infrastructures can you use to more fully involve the college community in assessment? How might you engage your community at the institutional, program, and course level in assessment design and reflection?
Student learning outcomes assessment involves a variety of internal, locally-determined outcomes statements, which are assessed using locally-appropriate authentic methods, and generate data that are analyzed within the institutional context. It is a faculty and institution-driven process that supports and improves our uniquely diverse institutions in a culturally appropriate manner. The requirement to develop student learning outcomes and assess them with a vision for improvement is the only “standard” applied. Within that mandate, institutions are free to determine diverse methods in order to address both accountability and improvement. Below are some practical applications of the process applied at different colleges in very different ways. You will notice: (1) the important linkage between course outcomes and “passing the course”; (2) program outcomes are integral to program review efforts and educational master planning; and (3) institutional outcomes are linked to strategic planning.

Course Assessment – Glendale College

Examples of course assessment resulting in improvement abound in California community colleges. One example of changes at the course level includes work done at Glendale Community College, which began with a simple linkage statement between assessment and grade distribution data—"For the rest that passed with a C or better, they all achieved the stated Student Learning Outcomes." The process evolved beyond using this “grades for data” approach to more defined SLO assessment. By the third assessment cycle, faculty were able to focus on more specific outcomes. For example, the faculty observed that in general, students did worse on the questions that had to do with the vocabulary related to the chapter themes than the vocabulary that dealt with calcos, idiomatic expressions, “Spanglish,” and homophones. This finding indicated that the students were paying attention to the problems that heritage speakers tend to have and that homework and in-class activities were generally effective, but students did not spend much time studying vocabulary. This information provided specific valuable feedback to adjust teaching practices.

Program Level – Bakersfield College

In 2002-2003 the Bakersfield College biology department, organized as a single academic program by discipline, began examining its program and curricular student learning outcomes. This outcomes perspective guided faculty to conclude that the biology department really served three significant programs of study contributing to different outcomes.

The majority of students taking biology were pre-allied health, followed by the next largest number of students only taking a single course for general education, and distantly followed by a handful of Biology majors, most of whom never completed an associate’s degree. The outcomes and expectations for students taking only one course to meet a general education science requirement differed significantly from outcomes for pre-allied health students and biology majors.
It was evident that a single set of outcomes and a single degree for all students taking biology was not reasonable. The intensity, breadth, focus, and depth of study varied significantly for each pathway. The Biology Associate of Science degree was reframed in the context of student learning outcomes as a Biology Associate of Science degree with an emphasis in Human Biology (the pre-allied health track) or a Biology Associate of Science Degree with an emphasis in Biology (for majors). The program assessments used for each degree were different because the final outcomes were different. The General Education Biology (GE) course became part of the GE program and was assessed as a course. Data were used to improve success and curriculum in all three biology pathways.

Aligning outcomes with the degrees increased the number of biology degrees awarded ten-fold (see table below). Students expressed extreme satisfaction in graduating and being awarded a degree for completing an educational pathway that truly represented an accomplishment and completion of a course of study with explicit outcomes.

<table>
<thead>
<tr>
<th>Old Biology Program</th>
<th>New Biology Program</th>
</tr>
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<tbody>
<tr>
<td>Required: Courses in chemistry, math, biology</td>
<td>Emphasis in Biology</td>
</tr>
<tr>
<td>Target: Students transferring as a biology major</td>
<td>Required: Courses in chemistry, math, biology</td>
</tr>
<tr>
<td></td>
<td>Target: Students transferring as a biology major</td>
</tr>
<tr>
<td></td>
<td>Emphasis in Human Biology</td>
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<tr>
<td></td>
<td>Required: One course in chemistry, one course in math, biology courses related to the human biology</td>
</tr>
<tr>
<td></td>
<td>Target: Students seeking multiple local Allied Health pathways including transfer in Allied Health areas</td>
</tr>
</tbody>
</table>

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</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>9</td>
<td>10</td>
<td>7</td>
<td>5</td>
<td>12</td>
<td>18</td>
<td>46</td>
<td>58</td>
<td>56</td>
<td>87</td>
</tr>
</tbody>
</table>
Student Services – Santa Monica College

The counseling department at Santa Monica College (SMC) has an extensive SLO assessment process that has closes the loop and is linked to SMC’s Institutional SLOs. The counselors determined that some outcomes were easily assessed through examining the student education plan process as well as the actual student education plans. The following outcomes were assessed:

- Students will formulate a realistic self-appraisal of their educational status and its relationship to their overall goals
- Students will identify their math and English course sequence and chart their individual math and English course sequence to achieve their educational goals as a result of the educational planning presentation in the Counseling 20 class and subsequent counseling session(s)

The student education plans and process were examined through three different assessment strategies: 1) Education Plan Competencies were evaluated by counselors using a common rubric, 2) students were given a common quiz based upon a case scenario, which was administered approximately eight weeks after the counseling sessions, and 3) at which time a student survey was also conducted to gather student feedback on the process and final plan. The data from these three authentic assessment methods provided both direct and indirect information about what the students were able to do as a result of the counseling class and sessions. The data were collected in 2008 and 2009 and then compared to see whether the process helped students translate the information into a plan, whether the quality of the plans improved, and whether the process itself needed improvement.

Ultimately SMC counselors learned that over the last two years the students were improving in their expertise in educational planning as measured by the rubric. The counselors also learned that they needed to spend more time on certain topics during the counseling class and session. They also learned that students felt that it was important to have more individual time with counselors on certain topics.

Institutional Level - College of Marin

Research at the College of Marin led the entire college to re-think the use of "butts in seats" measures and to look instead at what each program was trying to achieve for students and align measurable goals with outcome assessment. As a result of research and vision, Marin re-organized the college around student pathways: basic skills/ESL; transfer; career and occupational training; and personal growth and enrichment. Outcomes were written for each pathway. For example, “Full-time transfer students will be able to complete their programs and transfer within two years.” Baseline data and longitudinal data track the progress of each pathway to demonstrate student success (and non-success).
Three years ago, the College of Marin Academic Senate went through a radical transformation in thinking about the way they measured their success. The college had traditionally looked to input measures to determine the success of programs: head count, WSCH/FTE (load), class size. Research prepared by a faculty member and presented to the Senate led to an understanding that program effectiveness would be captured better if they looked at output measures including: job placement, number of transfers, the success of transfer students, the number of degrees granted, the efficiency of programs, completion rates, ESL transitioning, and student satisfaction.

Guided Inquiry

1 Institutional Snapshot: Describe ways that your institution uses elements of these practical applications.

2 Moving Forward: What elements of the Practical Application examples might be effectively integrated into your institution’s assessment processes?
The process by which student learning outcomes are developed and assessed can be evaluated through several means. Additionally, this evaluation can be expanded to include the relationship between SLOs and other institutional practices such as program review and resource allocation. Such evaluation is most successful if a college has designated venues for discussion and feedback appropriate to the college. Evaluation plans should be designed prior to implementation of a new process and should be based upon the criteria that make this process valuable and effective for the institution. In addition, the evaluation process should be transparent with clear expectations for everyone.

One method of evaluating the effectiveness of learning outcomes assessment is to designate a college committee focused on student learning outcomes to coordinate efforts, review a sample of the college’s SLO assessment efforts, and identify areas of collective achievement, opportunities, and growth. This effort can be facilitated through the development of a rubric that outlines the college’s shared principles and practices for effective learning outcomes. The findings from this effort can be shared with the faculty and student services leadership, with the intention that the institution will showcase exemplary efforts and design additional professional development addressing the areas of growth.

Another method to examine the effectiveness of learning assessment efforts would be to use existing venues or create new ones to enable ongoing dialogue. For example, a part of the faculty professional development day could be devoted to facilitating departments in evaluating the quality and rigor of their own assessment efforts using an institutional rubric or guiding principles. From this activity, departments could identify their strengths and areas for growth and launch discussions about strengthening their outcomes efforts.

**Guided Inquiry**

1. **Institutional Snapshot:** What institutional practices connect to the assessment of student learning outcomes? Which existing institutional infrastructure or activities can be leveraged to offer additional opportunities for dialogue surrounding the assessment process?

2. **Moving Forward:** What might your next steps be in your efforts to improve or develop effective methods of assessment?
Based on your responses to the Guiding Inquiry questions in each section of this guide, identify the specific steps you could take to develop and/or improve the assessment of student learning at your institution.

Consider each of the building blocks to assessment and identify next steps.

- Engaging in reflection and research at the institutional, program, and course level
- Defining measurable SLOs
- Designing and conducting assessment
- Analyzing assessment data
- Reporting assessment results at the institutional, program, and course levels
- Improving practice and providing opportunities for professional development

Developing an Action Plan
1. Assessing Student Learning Outcomes  
   Primary Audience: *Instructional Faculty*

2. Using an Equity Lens to Assess Student Learning  
   Primary Audience: *Instructional Faculty, Student Services Staff*

3. Assessing Strategic Intervention Points in Student Services  
   Primary Audience: *Student Services Staff*

4. Assessing Institutional Effectiveness  
   Primary Audience: *Institutional Researchers and Administrators*

5. Assessing Basic Skills Outcomes  
   Primary Audience: *Instructional Faculty*

6. Maximizing the Program Review Process  
   Primary Audience: *Instructional Faculty, Institutional Researchers*

7. Turning Data into Meaningful Action  
   Primary Audience: *Institutional Researchers*

8. A Model for Building Information Capacity and Promoting a Culture of Inquiry  
   Primary Audience: *Administrators, Institutional Researchers*
Instructions for Managing Program-Level SLOs

Includes General Education, Degrees/Certificates, Student-Services and other higher-level outcomes

Creating a New Program-Level SLO

1. From the SLOlutions main menu, click on “Program/Institutional Outcomes”.
2. Click on “Create a New Program SLO”
3. From the “Program Type” menu, select the type of program (e.g. General Education, Degree/Certificate, etc.) that you are interested in.
4. A new drop down menu should appear, titled “Program”, which is populated with all programs of this type for which you have administrator-level access. If you do not have access to the program you need, contact someone with global administrative access to the SLOlutions program.
5. Enter the text of the SLO, proposed assessment methods, and (if you wish) any comments related you would like to store about this outcome.
6. If you intend to derive all your data from courses, click on the checkbox by “Data is Derived from Courses.”
   This should be checked for most program-types, especially GE and Degree outcomes. Most student services outcomes will not derive their data from courses.
7. Indicate whether or not you would like this SLO to be designated as “Active.” As with course SLOs, any “active” SLO must have a rubric available for entry of data. The software will prevent you from making this SLO active unless you finish creating a rubric. You can always come back at any point and create a rubric if you wish to do so at a later time.
8. Click “Submit”. If you chose to make the SLO active, you will then be prompted to proceed and create the rubric.
9. The process for creating a rubric is the same for programs as for course-level outcomes. Review the instructions under “Course-Level Outcomes” before proceeding.

Linking a Program-Level SLO with a Course

Before linking a program-level SLO, it is very important that the SLO be designated as “Active”. Make sure the outcome is active before beginning. The process for activating Program-Level outcomes is the same as that for course-level outcomes, and can be found in the “Using SLOlutions” primer.

1. From the SLOlutions main menu, click on “Program/Institutional Outcomes.”
2. Click on “Link a Program Outcome with a Course.”
3. Select the Program Type, Program, and Term for which the link should be effect. Note that if you link an outcome in the current semester, the link will automatically be rolled over to the next (and subsequent) semesters as they are entered into the program until they are unlinked.
4. Select the SLO you wish to link.
5. Select the department which offers the course you wish to link.
6. From the menu to the left, click on any course you would like to link with this outcome. To select more than one course at a time, hold the “Control (Ctrl)” key down while clicking, then
click on the “Link” button. This has the effect of adding the SLO to the course and copying any rubrics associated with it to the course as well.

7. Change the department if you wish to add courses from another department.
8. All changes are performed in the database as you link or unlink courses. When you are finished, you may log out or navigate elsewhere in the software.
## Sample Student Learning Outcomes

<table>
<thead>
<tr>
<th>Course</th>
<th>Situation:</th>
<th>Behavioral objective:</th>
<th>Performance standards:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychology-Human Services</td>
<td>Given the following condition(s)/information ...</td>
<td>The student will be able to ...</td>
<td>To the following standards: Apply behaviorist, humanistic, psychoanalytic, and biological psychology perspectives and methods to interpreting and altering the behavior</td>
</tr>
<tr>
<td></td>
<td>Given a particular behavior and the context in which it occurs</td>
<td>Describe a variety of perspectives for interpreting and altering behavior</td>
<td></td>
</tr>
<tr>
<td>Community Child Health Services</td>
<td>Given a description of an infant with a particular disability</td>
<td>Students will identify ways to provide support and education to parents.</td>
<td>Including on-site, in-home, and services available in this community, as appropriate to the age, disability and situation of the family.</td>
</tr>
<tr>
<td>Composition 100</td>
<td>Given an in-class writing task based on an assigned reading</td>
<td>Students will write an essay demonstrate appropriate and competent writing</td>
<td>States a thesis, supports assertions, maintains unity of thought and purpose, is organized, and is technically correct in paragraph composition, sentence structure, grammar, spelling and word use.</td>
</tr>
<tr>
<td>General Science</td>
<td>Given a simple hypothesis,</td>
<td>Design experiments and interpret data according to the scientific method in order to evaluate the hypothesis.</td>
<td>Apply the scientific method in a variety of ways, formulate questions, design experiments that answer the questions; and evaluate the experimental data to reach conclusions.</td>
</tr>
</tbody>
</table>
SLO Coordinators

Student Learning Outcomes Coordinators act as agents of change on their campuses; not change for the sake of change, but change anchored in campus culture and targeting improved learning. SLO coordinators lead the faculty on their campuses in efforts to design and implement the assessment of student learning outcomes for instruction, the library and student services. One of the primary responsibilities is to ensure that the college is making progress in integrating SLOs and assessment into the institutional processes including program review, planning, and budget cycles. In this leadership role, SLO coordinators must balance the concerns of faculty and administrators as well as work to overcome resistance to changing processes. The leadership role is a challenging one and this page is designed to help SLO coordinators find the information they need to achieve their goals. On the Senate website, you will also find links to this year's Accreditation/SLO Committee and to both past and upcoming SLO Institutes. The SLO Institute is held annually in July, typically in the northern part of the state in even numbered years and in the south in odd years. The links to previous years' Curriculum Institutes include handouts and PowerPoint presentations from many of the breakout sessions. Finally, if you have a question regarding accreditation or student learning outcomes for which you cannot find an answer, please feel free to contact the Academic Senate at info@asccc.org.
Designing Effective Assessment Activities

Presented by Matt Koutroulis
SLO Coordinator and Committee Chair
Presentation Overview

- Traditional Assessment, Authentic Assessment, and Student Learning Outcomes
- Examples of Authentic Assessment
- Different Approaches to Rubric Design
- Measuring High-Level Learning with Multiple Choice Questions
Traditional Assessment

- Traditional assessment generally focuses on measuring what knowledge students have obtained through their courses and other experiences.
- Assessment activities are largely determined by the course outline.
- Assessment attitude: “I have presented this material to my students. Now, I will evaluate whether or not they have learned what was taught.”
Assessment activities largely based on contrived exercises
- Matching questions
- Fill-in-the-Blanks
- True-False
- Multiple Choice

Typically no evidence of *constructed* knowledge

The student is more of a spectator than a participant in the learning material
- “What have you seen and remembered,” not “What are you able to do?”
Authentic Assessment and SLOs

- Authentic assessment is based on a “planning backwards” approach
- In designing curriculum, we ask ourselves first “What should a student who successfully completes this course or program be able to do as a result of their experience?”
- Teaching is directed at advancing students towards demonstrating proficiency in these tasks, which we call the “Student Learning Outcomes”, or SLOs
- Assessment drives curriculum!
Authentic Assessment and SLOs

- Authentic assessment focuses on measurement of student achievement in accomplishing some “real-life” task
- Assessment vehicles involve significantly more participation on the part of the student
  - Creation or performance of artistic and/or written works
  - Demonstration of scientific laws through experiments
  - Completion of a “final” project or capstone course
  - Presenting arguments showing how historical events are relevant to us in the modern day
Is this the point: Authentic Good, Traditional Bad?
No! Traditional assessment and authentic assessment should complement one another
In evaluating students, we must have some insight into what they know
Without authentic assessment, our picture of the student is incomplete
They may have absorbed knowledge, but what can they do with it?
Haven’t we really been doing this all along, and now we’re just giving it a fancy name?

Is there really any difference between the traditional, forward-planning approach and the authentic, backwards-planning approach? Is this just semantics?
Backwards Thinking: An Aside

“Taxol”

Pacific Yew
Examples of Authentic Assessment

- Authentic assessment activities require a constructed response
  - Students “construct new knowledge” by taking what they already know and applying it to some new situation
  - Emphasis is on synthesis of ideas and concepts
- Some typical assessment activities:
  - Short-answer essays
  - Designing concept maps (see Mindmap software)
  - Peer editing
  - Generation of own questions
Examples of Authentic Assessment

- Evaluation of portfolios of student work is perhaps the most often-cited method of authentic assessment.
- Virtually all work is constructed.
- Allows for longitudinal comparison of student progress.
  - Instructor and student see progress.
- May include out-of-class work and “under the gun” in-class assignments.
“Table Perimeters” An Example from Elementary Geometry:

Task: You have invited some family and friends over for a celebration dinner. 23 people have responded that they can make it. Since you do not have room in your house to seat this many people you decide to rent some table and chairs to set up in your spacious backyard.

You call the rental store and they tell you they have 2.5 ft x 7.5 ft tables. Each chair needs at least 2.5 feet of space along a table. Hmm. You begin to wonder the best way to arrange the tables and chairs... one big row, a large square, each separate... there are many possibilities. You tell the rental place you will get back to them with exactly how many tables and chairs you want.
Table Perimeters (continued):
Determine how many tables are needed if you keep all tables separate. Then draw a different arrangement where tables are pushed together, and determine how many tables would be needed if you chose this arrangement. Compare and contrast the two set-ups.

Source: http://jonathan.mueller.faculty.noctrl.edu/toolbox/examples/bossenga08/table%20perimeters.pdf
Discussion Questions: Pros and Cons of Authentic Assessment

- Is this activity a good example of authentic assessment? Why or why not?
- What are the pros and cons of assessing students with such an activity?
With activities based on constructed knowledge, there is the potential for tremendous variety in the responses we may receive.

Rubrics provide the structure needed to evaluate constructed responses:
- Keep educators focused on the outcomes
- Grading is generally more objective
- Grading is more transparent from the student’s perspective

Rubric for “Table Perimeters” Assignment
Authentic Assessment with Rubrics

- This rubric was very specific to the given assignment
- Rubrics for our course SLOs are usually less specific
  - A particular assignment may be suggested, but not mandated
  - In most cases, constructed knowledge can be demonstrated through a variety of different tasks
- Rubrics for program SLOs are, by necessity, even more general
Suppose we teach a course which is linked to the following General Education SLO: “(Students) Formulate strategies to locate, evaluate and apply information from a variety of sources – print and/or electronic.”

At Rio Hondo, the general structure of the rubric is defined along with the SLO, including the *rubric scale* and the *proficiency standards*.

*Source of GE SLO:* Assessment Plan for General Education/College-Wide Learning Outcomes, College of Marin.
All courses linked with this SLO must have the same *structure*, but the guiding text may differ based on the specific content and/or level of the course.

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<thead>
<tr>
<th></th>
<th>Not Proficient</th>
<th>Proficient</th>
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<tbody>
<tr>
<td>Location</td>
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<tr>
<td>Evaluation</td>
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<td>Application</td>
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*Rubric Structure*
# Authentic Assessment with Rubrics

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<td>Application</td>
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**GE (Program) Rubric Structure**

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**Course Rubrics Have Same Structure**

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<td>Application</td>
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To facilitate grading, the structure of the rubric for an assignment should either be identical to the SLO rubric or designed to be easily aligned with it:

- Proficiency standards should be kept in mind
- Most thought goes into differentiating degrees of proficiency

Note: There is no requirement to construct or submit rubrics for individual assignments, but they may help for getting information into your SLO rubrics.
Authentic Assessment with Rubrics

- An alternative type or rubric scale one may wish to consider relies more on categorizing the “level” of student learning rather than simply whether or not a student is proficient.
- For example, consider a Student Services SLO related to Financial Aid:
  - Is a student really ever “proficient” at Financial Aid?
- A more useful rubric scale might be appropriate.
Example: Proficiency Scale for an unspecified Financial Aid SLO (ranked low to high)

1. Awareness
2. Participation—Highly Dependent
3. Participation—Less Dependent
4. Self Sufficience
The dreaded phrase “teaching to the test” often comes up in discussions of standardized testing. Some advocates of authentic assessment state that, under this model, you are encouraged to do just that. Should students have access to assignment rubrics before their work is assessed? After?
Assessment through multiple choice questions typically does not require construction of knowledge by the student.

Consider the following question, which requires no construction or high-level thinking whatsoever:

The planet closest to the sun is:

Multiple choice questions can measure high-level learning, but such questions take time to develop:

- Remember, in authentic assessment, we want students to construct knowledge, not just merely select from a list.
- In writing these questions, a list of action verbs derived from Bloom’s Taxonomy can prove quite useful in reminding us which skills we are trying to measure.
- The answer choices themselves require substantial thought to ensure that students arrive at their conclusion through a form of constructed knowledge and not by simple guessing.
Questions from a Music Appreciation Final Exam (my own examples):

Section Instructions: The following questions are based on a brief excerpt from a larger work which will be played for you twice. Since this work was not presented in class or in any assignment it is likely the first time that you will have heard it. Your answers depend on your ability to evaluate this work based on your previous experience in the class. I will divide the excerpt into three sections, and identify them as the music is played.
Multiple Choice Questions and High-Level Thinking

1. The structure of the first section played is best described as
   a. a cadenza       b. theme and variations
   c. a rondo        d. a fugue
   e. a recitative

2. From the given choices, in which year was this work most likely completed?
   a. 1695       b. 1783
   c. 1820       d. 1865
   e. 1957
3. In the second section, all of the following percussion instruments are heard except
   a. triangle     b. timpani     c. xylophone
   d. cymbals     e. gong/tam-tam

4. This portion of the composition is meant to depict a specific event. What is this event?
   a. The coronation/crowning of a new king
   b. A particularly dangerous storm
   c. The death of a famous actress
   d. A military massacre of unarmed civilians
   e. The launch of a rocket into space
Q & A Session
I have used several resources in developing this presentation. I relied heavily on material from the web site of Prof. Jon Mueller (North Central College, Naperville IL). *Bloom’s Taxonomy* is another constant source of inspiration for assessment issues, and was particularly useful in developing the last part of this talk.
Designing Effective Assessment Activities

Thank you for participating!
An Introduction to Student Learning Outcomes

Presented by Matt Koutroulis
SLO Coordinator and Committee Chair
Presentation Overview

- What is an SLO?
- What is the “SLO Process” at Rio Hondo College?
- Frequently Asked Questions
- Future Directions for SLOs at the College
- Closing Q & A
Some context first:

- **Goal** is a statement of intent or vision that is not necessarily measurable. A course description is an example of a goal.
- **Objectives** are small steps that lead toward the goal.
- **SLOs** are overarching, specific, observable characteristics, developed by local faculty, to determine that learning has occurred as a result of a specific course, program, activity, or process.
The course objectives are a list of essential topics which are to be presented in the class
  ▪ The emphasis of objectives is placed on the instructor and the course framework
SLOs indicate skills and/or knowledge students are supposed to have gained through participation in the course
  ▪ The emphasis here is clearly on the student
  ▪ It’s not “What did I teach?” but rather “What have students taken out of the class?”
This difference of perspective is the key to understanding SLOs and their role
What is an SLO?

- Consider the difference between objectives and SLOs for a Student Services program:
- The program’s objectives state the purpose of the program and how it functions relative to students and the College
- SLOs, by contrast, are used to evaluate the degree to which students have benefited from their involvement in the program
Consider the three items below. Identify each as a goal, objective, or SLO.

1. This course introduces senior engineering students to design of concrete components of structure and foundation and integrating them into overall design structures.
2. Given a scenario concerning a specific population, the student will define and assess the health status of that population and identify factors influencing the use of health services.
3. The student will understand the use of commas.
Other Examples of SLOs

- Students will be able to analyze a documented nutritional problem, determine a strategy to correct the problem, and take action on the devised strategy.
- Given a two- to three-component mixture of chemical compounds, students will devise and execute an efficient procedure which isolates each compound in a pure form.
- Given data, students will analyze information and create a graph that is correctly titled and labeled, appropriately designed, and accurately emphasizes the most important data content.
Writing SLOs

- A good starting point for writing SLOs for a course is the “Exiting Skills” section of the course outline.
- These skills have already been written and agreed to by faculty and received the approval of the Curriculum Committee.
- The skills statements should be altered as necessary to produce a measurable outcome.
- In some cases, the exiting skill statement itself may be sufficiently descriptive (and measurable!) to serve as an SLO with little or no modification.
Writing SLOs: An Example

I start with an exiting skill for Chemistry 131:
“...Predict whether a specified reaction will occur spontaneously given appropriate thermodynamic data.”

The statement is easily expanded upon and made into an SLO:
“Given adequate quantitative and/or qualitative data describing a simple chemical system, students will determine whether or not a reaction will occur spontaneously and effectively explain how they came to this conclusion using appropriate terms and physical laws.”

Note that SLOs do not necessarily need to begin with the “Given such-and-such a problem/situation” construct.
Writing SLOs

- For programs—and Student Services programs in particular—the starting point for developing SLOs should be the program’s mission statement.
- The Mission Statement itself describes the values and functions of a particular program.
- The program SLO assesses the extent to which students have benefited from participation in the program.
- In other words, have students been able to use the knowledge and abilities gained in the program and put them to use to advance their education.
The Language of SLOs

- SLOs measure more complex skills than simply “knowing facts”
- SLOs generally contain “action verbs” which call upon higher-level thinking
- Bloom’s Taxonomy is an excellent resource for the construction of SLOs, as are many of the publications which are based on its ideas
- Bloom recognizes three domains of learning
  - Cognitive
  - Psychomotor
  - Affective
The Language of SLOs

- The Cognitive Domain
- Action verb handouts
The SLO Process at Rio Hondo

- Multiple SLOs are defined for each course
- These SLOs are written by faculty and agreed to within each area
- In writing the SLO, acceptable assessment methods and a descriptive standard for proficiency are developed
- For each course, a subset of these SLOs are designated as “active”; the remainder are “not active.”
The SLO Process at Rio Hondo

- Assessment data is collected for each of the “active” SLOs each semester
- After collecting 1-2 semesters’ worth of data, the assessment results are analyzed by faculty
- The faculty develop an action plan to improve student learning based on the results collected
- If assessment results are deemed satisfactory, the SLO may be deactivated and replaced by one of the “not active” SLOs
- A similar set of procedures is followed for programs
For the purposes of SLOs, the following are designated as programs:

- General Education
- Basic Skills
- Student Services programs

Course data is the primary source of assessment data for General Education and Basic Skills SLOs

Student Services assess data which is most appropriate to their particular program
The SLO Process at Rio Hondo

- SLOs must also be defined for each degree and certificate
- Assessment may be based on course data, results of licensing exams, final projects and/or portfolios, and other relevant sources of information
Frequently Asked Questions

- Why do we have to do this?
- Aren’t SLOs just a passing trend like all the other education fads we’ve seen come and go?
- How many SLOs must a course have?
- Do all faculty teaching a course assess the same SLOs?
- Do all faculty have to use the same assessment tool for an SLO?
- How often do we need to assess an SLO?
- Will assessment data be used to evaluate my teaching?
- Do SLOs interfere with Academic Freedom?
Future Directions

- General Education & Basic Skills SLOs
- Degree & Certificate SLOs
- Student Services SLOs
- Additional SLO training
- Links with Institutional Planning
- Quality Control for SLOs
- SLOlutions software
Q & A Session
Many of the definitions and examples cited in this presentation can be attributed to Janet Fulks at Bakersfield City College and her extensive handouts on assessment.

The document “SLOs and Assessment: Mapping the Route to the Lost Ark,” presented at the 2008 Curriculum Institute by Marcy Alancraig, Janet Fulks, and Michael Heumann was another major source of information and examples.
An Introduction to Student Learning Outcomes

Thank you for participating!
Using the SLOlutions Software: A Primer

This handout provides a basic introduction to the SLOlutions software, which we will be using at Rio Hondo College to assess student learning outcomes (SLOs) and to respond to the results. The software is, as of this writing, completely functional, although the inevitable bug does show up from time to time, particularly in deleting outcomes and reports.

Accessing the SLOlutions System

The system can be accessed using your favorite web browser through AccessRio (i.e. the Portal). You should check the “Update Your Information” link (under the “Your Account” section) to ensure that your name and primary email is correctly entered into the system. The system is also accessible on the web at http://rio.solutions.com. Usernames are usually the same as AccessRio usernames, and employee ids are passwords.

You may return to the homepage at any time by clicking on “Home” at the upper-left of the page. Also, you may log out by clicking on “Logout”; these links are built into every page in the system.

The Course Outcomes Menu

The “Course Outcomes” menu is accessed by clicking the corresponding link on the sidebar to the left or on the homepage. Each option on this menu is explained below.

Viewing SLOs for a Course

All users and visitors to the web site may view the SLOs for any course by clicking on “View SLOs for a Course.” You may then select a department and a course to view these outcomes. Only the text of the outcomes is shown here to users without administrative privileges; rubrics, assessment methods, and additional comments are hidden. You may print out a list of all SLOs for the course as a .pdf file by clicking the “Create PDF” button. This allows you to quickly generate an SLO page to attach to a course syllabus.

Viewing SLOs for your Courses

Any faculty member may view the SLOs for courses they are teaching or have taught in the past (assuming these outcomes have been put into the system). Begin by selecting the term, and then click on the section for which you would like to view the outcomes. Note that, although multiple sections of the same course may appear the SLOs will be the same for each. Those outcomes which are currently designated as “active” appear in yellow; those which are inactive appear in pink. Clicking on the SLO brings up additional information about the outcome, including assessment methods, additional comments, and access to the rubric if it exists. You may also render this information more conveniently as an Adobe Acrobat (.pdf) document.
Entering Assessment Data for Courses

Each faculty member may enter assessment results for their courses by clicking on the corresponding link. Begin by selecting the term and then the section for which you would like to enter data. You will then see a list of the active SLOs for this course highlighted in yellow (data does not need to be entered for inactive SLOs). Finally, click on the text of the SLO. This will take you to a copy of the rubric containing embedded textboxes. In each box, enter the number of students who assessed at the given level for each proficiency standard. Enter a zero (0) if no students fall under the given category. **Do not leave any boxes blank, or you will not be allowed to submit your results!** If there are any invalid entries in the boxes, the system will not do anything when you attempt to submit results. When you submit the results for a given SLO, the yellow highlighting on that SLO should disappear. You will know that you have submitted all the necessary data when none of the SLO text is highlighted for any of the sections you are teaching. The data values are stored in the system and may be updated by revisiting the section and SLO where you may view the data you entered before.

Emailing Other Users Teaching a Course

Clicking on this link will allow you to either send an email to all users teaching a course that you are teaching in a given term or to prepare a quick distribution list with their email addresses which you may copy and paste into some other email program. Users with “faculty in charge” permissions and administrators may also email any faculty teaching a particular course for which they have access or selectively send a reminder email to those users who have not yet submitted assessment results for a given term.

All remaining features require some level of administrative credentials. Users designated as a “Faculty in Charge” (FIC) may carry out these tasks for specific, assigned courses, while users with administrative access may perform them for all courses in a given department and/or division.
Before undertaking any actions in the software, please thoroughly read the instructions for the task you wish to complete before beginning any work. You are much less likely to make a mistake if you know in advance what information will be required of you.

Create a New Course SLO

Begin by selecting the department and course from the provided drop down lists. Enter the text of the outcome, assessment methods, and any additional comments in the boxes provided (comments are optional). Avoid copying and pasting text from MS Word or other word-processing programs as certain characters (particularly single and double quotation marks, hyphens, and backslashes) do not translate well to web-based forms. Determine whether or not you would like to designate this outcome as “active”, meaning that all sections of this course must collect assessment data on this outcome. If the checkbox is left blank, the SLO is created without a rubric and is left inactive. If the checkbox is checked, you will be reminded that a rubric must be created for the outcome in order for it to be active. If you elect to create a rubric, the outcome will be saved in the system and you will be redirected to a web page for creating the rubric. However, the SLO will not be made active unless the rubric is submitted, since it is not possible for faculty to enter assessment data without it. Rubric creation is described in a subsequent section; please completely review the section on rubric creation before creating an SLO!

Edit or Delete an Existing Course SLO

This operation is similar to the creation of a new course SLO. Upon clicking on the outcome, you will be presented with the outcome text, assessment methods, and comments. These may be changed and saved, or the outcome may be deleted entirely (along with all data and rubrics associated with it). The text of the original outcome is not saved in either case. If you wish to keep a record of these changes, simply copy and paste the old outcome text into the “Comments” box. Note that it is not possible to edit or delete a program level outcome (e.g. General Education, Basic Skills, Degree, etc.) using this link, even if they are associated with this course. These changes must be made under the “Program/Institutional Outcomes” section by a user with the necessary administrative credentials.

Create, Edit, or Delete a Rubric/Proficiency Standards for an Existing Course SLO

Rubric creation is accomplished in a series of steps. Once the department, course, and outcome have been selected, a rubric scale must be selected. Note that users who have just written a new SLO and wish to activate it begin here. The system contains some generic rubric scales which may be used, the simplest of which is “Not Proficient, Proficient”. You may use one of the scales already in the system or you may elect to use a custom rubric scale. To create a custom rubric scale contact Matt Koutroulis and he will enter it into SLOlutions for you.
Three Rubric Scales in the Current SLOlutions System:

- a. Not Proficient, Proficient
- b. Not Proficient, Near Proficient, Proficient, Exceeds Expectations
- c. Unsatisfactory, Satisfactory, Excellent

<table>
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<th>Proficiency Standards</th>
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<tbody>
<tr>
<td>Proficiency Standard 1</td>
<td>Guiding Text</td>
<td>Guiding Text</td>
</tr>
<tr>
<td>Proficiency Standard 2</td>
<td>Guiding Text</td>
<td>Guiding Text</td>
</tr>
<tr>
<td>Proficiency Standard 3</td>
<td>Guiding Text</td>
<td>Guiding Text</td>
</tr>
</tbody>
</table>

Figure 1: Elements of a Rubric

Creating Proficiency Standards: The proficiency standards allow you to more finely tune your assessment of an outcome by breaking it down into specific categories which may be assessed individually. You may create anywhere from one to eight proficiency standards; if you would like to use more than four you should seriously consider whether or not this outcome should be separated into two or more SLOs. In general, if you use only one proficiency standard it is appropriate to simply paste the text of the original SLO into the proficiency standard box. Assign an appropriate benchmark value to the proficiency standards. This number represents the minimum percentage of students which you feel should be able to demonstrate proficiency on the given standard. Enter a numerical value from 1 to 100 here; do not include the percent sign (%) or any other text. Think carefully about this number!

An example I like to give here would be for an SLO about the fundamentals of driving a car. Would a benchmark of 70% of drivers being able to effectively use the breaks and accelerator on a car be appropriate? I think not! A much higher benchmark (essentially 100%) would be appropriate here. For more complex outcomes (e.g., effective and compelling use of metaphor in an introductory creative writing course) a lower benchmark may be appropriate as a starting point.

Click on “Continue” when you are finished.

Entering Descriptive Guiding Text: In each of the provided text boxes enter instructions which will guide faculty in appropriately assessing student work for each proficiency standard. Descriptive text is ultimately much more useful and appropriate than absolute statements like “Earns 85% on first exam,” which will present valid criticisms:
85% on who’s first exam? What if my exam is more challenging than the SLO authors’ exams? What if my exam contains different material? You haven’t revised your first exam since 1982?! Etc.

While you are not required to create guiding text, it will make assessment easier, particularly in courses with multiple sections. Finally, click save when you are done.

Rubrics may be edited to a limited extent. Only changes which do not fundamentally alter the structure of the rubric are allowed. You may

- Edit the text of the existing proficiency standard(s)
- Change the benchmark values
- Edit the guiding text

These operations are accomplished in the same way as when the rubric was first created. More substantial changes require that the rubric be deleted and recreated.

**Activate or Deactivate an Existing Course SLO**

This option allows you to specify whether or not data should be collected for a given outcome at present. For an SLO to be designated as active, it must already have a rubric in place. When an SLO is activated, all users teaching a particular course will have the opportunity to enter assessment results for that outcome when they visit the “Enter Assessment Data for Courses” section of the web site.

Begin by selecting the department and course. A grid is displayed showing the text of any SLOs associated with the course, not including those associated with a program-level SLO. The system also tells you if a rubric exists for a given SLO and whether or not the SLO is active. If a rubric does not exist for an SLO, its “Active” checkbox will be disabled. Deactivating an SLO does not delete any data already collected for that outcome in the system. For this reason it is generally preferable to deactivate a given SLO rather than delete it, unless the SLO was created by mistake, the requirements for the course are significantly revised, or the SLO is otherwise unsalvageable.

**Copy an Existing Course SLO to a Different Course [Requires Faculty-In-Charge (FIC) Level Permissions or Higher]**

This feature allows you to duplicate an SLO and related information (assessment methods, comments, and rubric) from one course to another. The copied SLO may be edited as necessary to accommodate the new course. Outcomes may be copied from any course, regardless of the department in which the course resides, encouraging interdisciplinary assessment of student work. A copied outcome is not linked to the outcome it is based on, so any changes made will not alter the original SLO.

Begin by selecting the program and course (the source) of the original SLO, then select the SLO to be copied. Select the program and course where the outcome is to be copied (the destination). Edit the outcome and related items in the same way as was described earlier, then save the SLO.
Create an Assessment Report and View Assessment Results/ Edit Assessment Report [Requires Faculty-In-Charge (FIC) Level Permissions or Higher]

This area of the site summarizes assessment data collected across all sections of a given course. Begin by selecting a course, and then select one or more terms you wish to include in the summary. To include more than one term, hold the control key down while left-clicking on each term (use the ⌘key if you are using a Macintosh). You are then presented with a table containing all active SLOs. The table also indicates how many sections have assessment data for each outcome and which terms (if any) already have completed assessment reports for the given outcome. Clicking on the SLO shows you a summary of all assessment data, including whether or not the benchmark set for each proficiency standard has been met. This data should be shared and discussed with all faculty (or at least a representative group) involved in teaching this course before continuing to prepare an assessment report. If these discussions have not yet occurred, you may click on the “Home” link or any of the other menu options to navigate to another section of the site. Alternatively, if you are ready to prepare an assessment report, click on the “Continue” button.

The assessment report allows users to reflect on the data collected and indicate what actions will be taken in response. Additionally, users may make resource requests based on the data. An Institutional Planning and Program Review component is currently under development to supplement the SLOlutions software. It will be possible to import these resource requests into program plans. More thorough instructions on this process are described in the document titled “Guidelines for Creating Assessment Reports” posted under the “Resources” tab on SLOlutions.

Emailing Other Users Teaching a Course

Clicking on this link will allow you to either send an email to all users teaching a course that you are teaching in a given term or to prepare a quick distribution list with their email addresses which you may copy and paste into some other email program. Users with “faculty in charge” permissions and administrators may also email any faculty teaching a particular course for which they have access or selectively send a reminder email to those users who have not yet submitted assessment results for a given term.

The Program/Institution Outcomes Menu

Most features on this menu are similar to the corresponding options on the Course Outcomes menu. There are, however, a few significant differences:

- Users must have “Program Administrator” level access or higher to access most features on this menu. All users (including the general public) may view the text of any program outcomes.

- Rather than selecting departments and courses, users select program types (e.g. General Education, degrees, custom programs, etc.) and then the name of the program.

- In creating a program outcome, users are asked to indicate whether or not assessment data is derived directly from courses. If it is, the SLO must be “linked” with the appropriate course(s)
using the corresponding menu option. If data is not derived from courses, then it will be entered directly when the user completes the assessment report. This process is described in greater detail in the document titled “Creating and Linking Program SLOs” posted under the “Resources” tab on SLOlutions.

- When viewing assessment results for programs which are linked with courses, you will be presented with the assessment data for each individual course as well as all courses combined. Note that the rubrics may be customized to a limited extent for each course through the “Course Outcomes” menu.

Rev. 8/16/2012
Introduction

The purpose of the SLOPEM (Student Learning Outcome Procedures and Evaluation Manual) is to collect in one place the instructions and procedures for developing and assessing SLOs. This includes course-level, program level (degree and certificate), and institutional (general education) SLOs, as well as SAOs (Service Area Outcomes) and their assessment.

Faculty write and assess SLOs. For Course SLOs, it is good practice to identify a Faculty member in Charge of the SLOs of the course. This faculty member communicates with other faculty teaching the course and can send reminders about which SLOs to assess and to input data each semester.

This document is made up of presentations and worksheets that can serve as a guide through the process of developing and assessing SLOs. This document will change as our procedures change. The SLO Committee will make changes as necessary.

In addition to processes specific to Rio Hondo College, this document also contains references to other works for those interested in additional information.

The SLO Committee
SLOPEM: Contents

An Introduction to Student Learning Outcomes
- What is an SLO?
  - Definition, Objectives vs Outcomes
  - Examples
  - Writing SLOs
- What is the “SLO Process” at Rio Hondo College?
Worksheets:
  - Checklist for Writing SLOs
  - Sample SLOs
  - Criteria for Reviewing SLOs

Designing Effective Assessment Activities
- Traditional and Authentic Assessment, and SLOs
- Examples of Authentic Assessment
- Different Approaches to Rubric Design
- Measuring High-Level Learning
Worksheet: Guidelines for Assessment Reports

Program and Institutional SLOs
- GE SLOs
- Program SLOs: Degree and Certificate SLOs
- Linking Course-level SLOs with GE and Program level SLOs
Instructions:
  - Guidelines for Developing Degree SLOs
  - Instructions for Managing Program Level SLOs

Using the SLOlutions Software: A Primer

Checklist for Writing Student Learning Outcomes

1. Have you describing something that the student will DO, and can be observed as described?
   (Avoid passive terms like understand. Avoid being sneaky by using a term like demonstrates an understanding of…)

2. Is it written as an outcome rather than objective?
   □ Language indicates the Big Picture rather than nuts and bolts
   □ Asks students to apply their skills and knowledge by producing (writing, performing, solving, developing) something
   □ Addresses student competency rather than content coverage

3. Is the SLO meaningful for the students?
   □ Reflects the reasons students are taking the course.
   □ Students comprehend the outcome as important?

4. Is the SLO appropriate for the course?
   □ Represents a fundamental result of the course
   □ Aligns with other courses in a sequence, if applicable
   □ Represents college-level work

5. Can the outcome be measured?
   □ It does not have to be quantitative assessment, but the standards should be written so that instructors in the course could agree on whether it meets the standard.

6. Other instructors:
   □ Will another instructor understand the SLO?
   □ Does it allow for academic freedom in teaching methods and creating assessments?
## Sample Student Learning Outcomes

<table>
<thead>
<tr>
<th>Course</th>
<th>Situation</th>
<th>Behavioral objective</th>
<th>Performance standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychology Human Services</td>
<td>Given a particular behavior and the context in which it occurs</td>
<td>Describe a variety of perspectives for interpreting and altering behavior</td>
<td>Apply behavioral, humanistic, psychodynamic, and biological psychology perspectives and methods to interpreting and altering the behavior</td>
</tr>
<tr>
<td>Community Child Health Services</td>
<td>Given a description of an infant with a particular disability</td>
<td>Students will identify ways to provide support and education to parents</td>
<td>Including on site, in home, and services available in the community, as appropriate to the age, disability and situation of the family</td>
</tr>
<tr>
<td>Composition 100</td>
<td>Given an in-class writing task based on an assigned reading</td>
<td>Students will write an essay demonstrating appropriate and competent writing</td>
<td>States a thesis, supports assertions, maintains unity of thought and purpose, is organized, and is technically correct in paragraph composition, sentence structure, grammar, spelling and word usage</td>
</tr>
<tr>
<td>General Science</td>
<td>Given a simple hypothesis</td>
<td>Design experiments and interpret data according to the scientific method in order to evaluate the hypothesis</td>
<td>Apply the scientific method in a variety of ways, formulate questions, design experiments that answer the questions, and evaluate the experimental data to reach conclusions</td>
</tr>
</tbody>
</table>
Criteria for Review of Course-Level SLOs

The series of questions below will be used in the evaluation of all course-level SLOs.

For each SLO listed for the course:

- Is the statement actually an outcome, or is it something else (course description, description of a particular assignment or an assessment tool, etc.)?
- Is the SLO measurable?
- Can the SLO be assessed through multiple assessment methods? (Note: it is possible that some outcomes may only be assessed by one method, particularly in vocational or performance-related areas)
- Is the SLO concise and well-written?
- Does each outcome employ verbs or verb phrases which are unambiguous as to the skills or traits being evaluated? (“Demonstrate knowledge” is an example)

For each active SLO:

- Are the major skill(s) addressed in the rubric split into multiple proficiency standards (criteria for evaluation) on the rubric?
- Do the benchmarks seem to be set at a reasonable level for each standard?
- Is enough information provided in the rubric to ensure that assessment of the SLO is unambiguous for all faculty members?

Considering all SLOs for a given course as a whole:

- Do the SLOs provide a reasonably broad coverage of the course?
- Do at least half of the SLOs address higher-level thinking skills (as per Bloom’s Taxonomy)?
- Are enough SLOs designated as active? See attached guidelines.