Designing Effective Assessments

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Session Objectives

- Discuss the purpose of assessment, why does it matter?
- Define and explain learning outcomes
- Define and describe different types of assessments
  - Affective
  - Knowledge/Cognitive
  - Skill
  - Behavioral
- Discuss the role of the Office of Research and Planning in assessment
- Design an assessment for at least one outcome

ACCJC SLO Rubric

Where we need to be in 2012:

Where we need to be in 2014:

Accrediting Commission for Community and Junior Colleges
Western Association of Schools and Colleges

Rubric for Evaluating Institutional Effectiveness – Part III: Student Learning Outcomes
(See cover letter for how to use this rubric.)

Levels of Implementation	Characteristics of Institutional Effectiveness in Student Learning Outcomes *(Sample institutional behaviors)*
Awareness	• There is preliminary, investigative dialogue about student learning outcomes. • There is recognition of existing practices such as course objectives and how they relate to student learning outcomes. • There is exploration of models, definitions, and issues taking place by a few people. • Pilot projects and efforts may be in progress. • The college has discussed whether to define student learning outcomes at the level of some courses or programs or degrees; where to begin.
Development	• College has established an institutional framework for definition of student learning outcomes (where to start), how to extend, and timeline. • College has established authentic assessment strategies for assessing student learning outcomes as appropriate to intended course, program, and degree learning outcomes. • Existing organizational structures (e.g. Senate, Curriculum Committee) are supporting strategies for student learning outcomes definition and assessment. • Leadership groups (e.g. Academic Senate and administration), have accepted responsibility for student learning outcomes implementation. • Appropriate resources are being allocated to support student learning outcomes and assessment. • Faculty and staff are fully engaged in student learning outcomes development.
Proficiency	• Student learning outcomes and authentic assessment are in place for courses, programs and degrees. • There is widespread institutional dialogue about the results of assessment and identification of gaps. • Decision-making includes dialogue on the results of assessment and is purposefully directed toward aligning institution-wide practices to support and improve student learning. • Appropriate resources continue to be allocated and fine-tuned. • Comprehensive assessment reports exist and are completed and updated on a regular basis. • Course student learning outcomes are aligned with degree student learning outcomes. • Students demonstrate awareness of goals and purposes of courses and programs in which they are enrolled.
Sustainable Continuous Quality Improvement	• Student learning outcomes and assessment are ongoing, systematic and used for continuous quality improvement. • Dialogue about student learning is ongoing, pervasive and robust. • Evaluation of student learning outcomes processes. • Evaluation and fine-tuning of organizational structures to support student learning is ongoing. • Student learning improvement is a visible priority in all practices and structures across the college. • Learning outcomes are specifically linked to program reviews.

Assessment Process

- The assessment process is a method we use to continuously improve what we do as educational experts by looking directly at student work[1]

- Assessment helps us implement and evaluate strategies that respond to the diverse needs of our students and to meet the ever-changing community and workforce demands[1]

- **Most of us already engage in this type of assessment**

Why do we Assess?[1]

- To measure how and what students learn
- To develop new and varied educational experiences that our students need to develop their talents and abilities
- To reveal whether our students master the skills and knowledge that our courses and programs promise
- To determine whether changes and interventions we have made actually help students succeed

Most Important Purpose of Assessment[2]

- Not for accountability
- **The common aim is for students to get the best possible education**
- Mission, goals, General Education (GE) outcomes and Institutional Learning Outcomes are promises the college is making to its students, their families, employers, and society
- Today's society needs skilled writers, thinkers, problem-solvers, leaders, people who act ethically and participate meaningfully in a diverse and global society
- Assessment is the tool to help make sure we fulfill those promises that we make to our students and society

Step I: Learning Outcome Statement

- A well-crafted SLO statement will indicate what a student will be expected to know, think, feel, or do
- Learning outcomes need to…
  - Be singular
  - Be clear
  - Reflect key program concepts
  - Be reasonable given students' ability
  - Be measurable

Step II: Choose a Method to Measure the Student Learning Outcome

- How will the outcome be assessed?
- Where will the assessment occur?
- How often will the assessment occur?
- How will assessment data be collected?
- How will assessment data be analyzed?
- How will assessment results be documented?
- Who will reflect on the results? When?

Possible Methods of Assessment

- Affective Measures
  - Attitudes, Beliefs, Opinions, Confidence, Motivation
- Knowledge Measures
  - Content, Cognitive
- Skill Measures
  - Application, Demonstration of Ability, Use of Knowledge/Skill

=Competency

Affective Measures

Examples of Affective Measures

- Questionnaires or Surveys Completed by:
  - Current students
  - Students exiting the program
  - Alumni/Former students
  - Employers of graduates

Questionnaires/Surveys Provide the Following

- Opinions about the program
- A means of assessing value development and life skills
- Attitudes/opinions about student learning outcomes

Considerations in Attitudinal Assessment

- Standardized vs. locally developed instruments
- Representativeness
- Response rate
- Indirect means of assessment viewed as "supportive evidence"

Advantages and Disadvantages of Standardized Means of Assessments

Advantages	Disadvantages
Developed by external panel of experts	Does it fit or reflect program outcomes?
Reduces charges of subjectivity or bias	Are results reported or available in a manner that is meaningful to the program?
Availability of existing instruments	Agreement on common instrument
Ability to make normative comparisons	Are normative comparisons meaningful?
Comprehensive subject coverage	Often very costly to purchase/score
Easy to administer	Turn-around time on results
Validity and reliability already established	How to incorporate finding in program improvement

Advantages and Disadvantages of Locally Developed Means of Assessments

Advantages	Disadvantages
Content can be tailored to a program's learning outcomes	Time commitment required of faculty: development, scoring, maintenance
Increased format flexibility	Lack of comparative data
Adaptable	Lacks validity and reliability; difficult to establish
More detailed analysis possible	Possible administration/scoring/reporting issues
Faculty/program have ownership	External credibility
Increased likelihood results will be used	
Increasingly favored by regional Accreditors	

Knowledge/Cognitive Measures
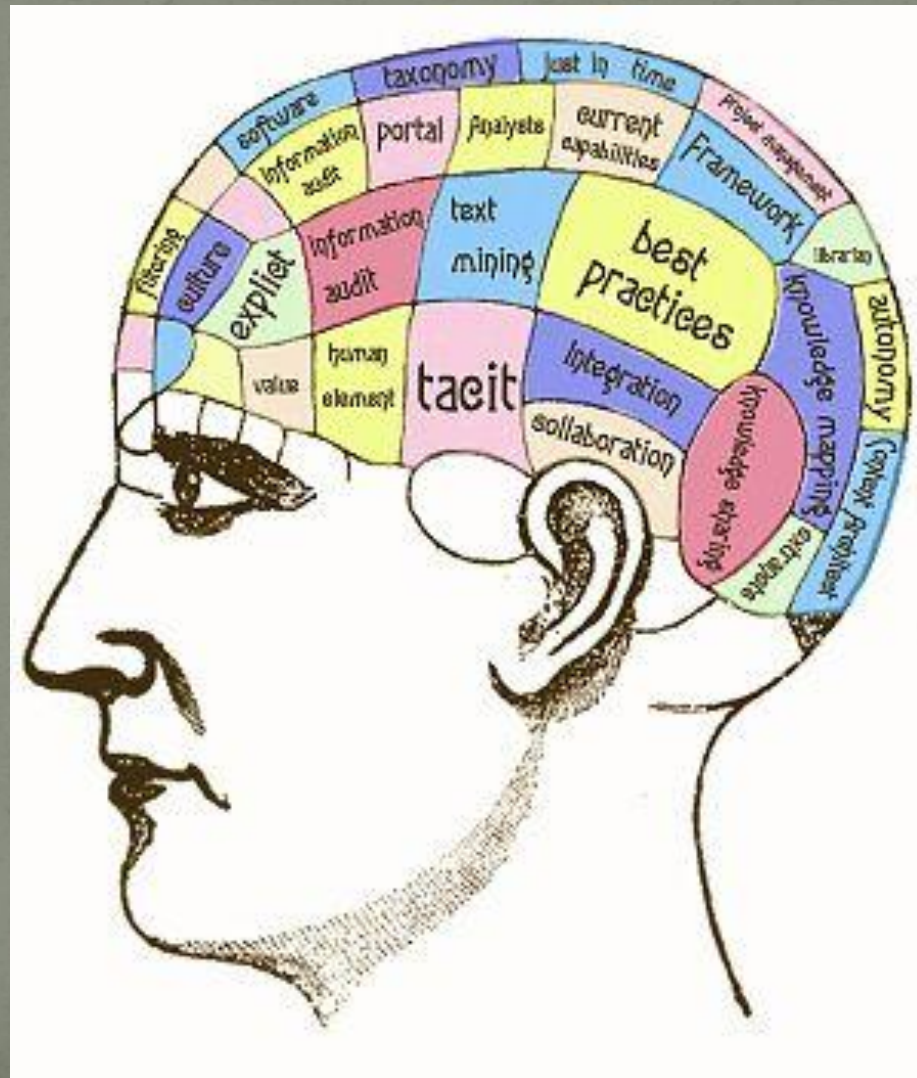
Knowledge/Cognitive Assessment

- Absolute measure of learning or achievement
- Measures change over time
- Standardized vs. locally developed instruments are similar to issues in affective assessment

Considerations in Knowledge/Cognitive Assessment

- Test Selection/Construction
  - Type (Multiple choice, essay, calculation, etc.)
  - Length
  - Subscales
- Who gets assessed?
- Scheduling
- Keeping focus – program vs. course assessment
- Student motivation

Skill Measures

Skill Measure Assessment

- Demonstration of ability as opposed to knowledge
- "Authentic" assessment – the activity is grounded in a "real world" application of the knowledge or skill learned
- What you see is what you get
- Considered "direct evidence" by regional Accreditors
- **Extremely time consuming, and logistically intensive**
- ACCJC Standard – college has established **authentic assessment** strategies for assessing student learning outcomes **as appropriate** to intended course, program, and degree learning outcomes

Examples of Skill Measurement

- Hands-on (motor skill) performances
- Oral presentation
- Capstone projects
- Portfolios
- Public performances
- Simulations
- Internships
- Case studies
- Juried competitions

Another Possible Type of Measurement – Behavioral Assessment

Behavioral Assessment

- Linkage of observed or reported behavior to student learning outcome
- Extended tracking, observation, and assessment
- Among the most difficult (and most gratifying) to acquire information/feedback about

Examples of Behavioral Assessment

- Performance after employment
- Performance after transfer
- Example: If learning outcome is to develop a life-long love of reading, then assessed behavior after graduation might include program alumni reporting that they read 10 works of fiction annually

Role of the Office of Research and Planning (ORP)

Role of the ORP in Assessment

Identification of learning outcomes, means of assessment, criteria, and use of results is a

Faculty-Driven Process!

The ORP Can Assist with the Following

- Survey development
- Developing templates (e.g.: rubric templates)
- Online and hard copy data collection formats
- Identifying baseline data/information to facilitate informed decision-making
- Identifying assessment data sources (e.g.: transfer data, employers of students, alumni, etc.)
- Data analysis
- Technical support
- Facilitate the tracking of learning outcomes
- The development of the outcomes assessment process

Activity
Designing an Assessment

- ILO: Students demonstrate critical thinking through decision-making, problem-solving, analysis of information, and creative thinking across the disciplines

- SAO: Constituencies engaged in Planning and Program Review (PPR) or Annual Planning will be able to easily access data specified in the 2010-2011 PPR Handbook by Program

- SLO: Students can describe the structure of a web page using hypertext markup language

Activity Hint

- How will the outcome be assessed? Which method is realistic and best assesses the outcome?
  - Affective
  - Knowledge
  - Skill
  - Behavioral
- Where will the assessment occur?
- How often will the assessment occur?
- How will assessment data be collected?
- How will assessment data be analyzed?
- How will assessment results be documented?
- Who will reflect on the results? When?

References

1. Fulks, J., Chaplot, P., & Pacheco, B. (June, 2010). BRIC (Bridging Research Information & Culture) Technical Assistance Program: Inquiry Guide, Assessing Student Learning Outcomes. *Research and Planning Group of California Community Colleges*. Retrieved from http://www.rpgroup.org/sites/default/files/BRIC%20Inquiry%20Guide%20-%20Assessing%20SLOs.pdf on November 16, 2010.

2. Suskie, L. (October, 2010). Why are we assessing? *Inside Higher Ed*. Retrieved from http://www.insidehighered.com/views/2010/10/26/suskie on November 16, 2010.