Using Assessment to Improve the Quality of Education

August 2007
Jan Arminio
jlarmi@ship.edu
Professor, Shippensburg University
and President of CAS

Lafayette College
What is assessment?
What is assessment?

- Systematic collection and interpretation of data
- Locally designed and executed
Why assess?
Why assess?

- To improve education and student learning
- To examine congruence with institution's stated purpose
Also...

- accreditation
- performance funding
- to address concerns of effectiveness (access, cost, and decline in student learning)
- indicates seriousness
Plus…

- Ethical practice
- Curiosity
What differentiates…

- Sound assessments
- Poor assessments
Good Assessments

- Provide useful information
- Provide reasonably accurate information
- Protect privacy of students
- Are systematic and regular
- Are effective in terms of time, cost, and other resources
To examine congruence with institution's stated purpose:

Five Column Model
CAS

- Self assessment
History of CAS

- Consortium of professional associations established in 1979
- First standards published in 1986
- Currently 37 sets of standards and 37 member associations
- Purpose is to promulgate standards to ensure quality in educational programs
- Recently published 6th edition of standards
Standards

- What are they?
- What role do they serve?
- What does compliance to standards indicate?
How are CAS Standard written?
<table>
<thead>
<tr>
<th>Mission</th>
<th>Legal Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program</td>
<td>Equity and Access</td>
</tr>
<tr>
<td>Leadership</td>
<td>Campus and External Relations</td>
</tr>
<tr>
<td>Organization and</td>
<td>Diversity</td>
</tr>
<tr>
<td>Management</td>
<td>Ethics</td>
</tr>
<tr>
<td>Human Resources</td>
<td>Assessment and Evaluation</td>
</tr>
<tr>
<td>Financial Resources</td>
<td></td>
</tr>
<tr>
<td>Facilities, Technology,</td>
<td></td>
</tr>
<tr>
<td>and Equipment</td>
<td></td>
</tr>
</tbody>
</table>
CAS Standards

Part 1. MISSION

The purpose of the Campus Activities Program (CAP) must be to enhance the overall educational experience of students through development of, exposure to, and participation in programs and activities that improve student cooperation and leadership while preparing students to be responsible advocates and citizens and complementing the institution's academic programs.

These activities could be intellectual, social, recreational, cultural, multicultural, and spiritual in nature. Programs could pertain to leadership, governance, community service, healthy lifestyles, and organizational development.
CAS Self-Assessment Process

- Establish and Prepare Self-assessment Team
- Initiate Self Study
- Identify and Summarize Evaluative Evidence
- Identify Discrepancies
- Determine Appropriate Corrective Action
- Recommend Steps for Program Enhancement
- Prepare an Action Plan
Establish and Prepare Self-assessment Team

- Who should serve?
- Who should not serve?
- How should the team be trained?
Initiate Self Study

- When should the data be collected?
- What data should be collected?
- What other information is necessary?
Identify and Summarize Evaluative Evidence

- How should the materials be organized?

In this step reviewers ensure that evidence exists to support criterion measure ratings.
Identify Discrepancies

- Is a “good” review one in which no discrepancies are found?
Action Steps

- Determine Appropriate Corrective Action
- Recommend Steps for Program Enhancement
- Prepare an Action Plan
CAS Exercise
Go back to our 5 column model

- Goals
Measuring Learning Outcomes

- The formal education of students consists of the curriculum and the co-curriculum and must promote student learning and development that is purposeful and holistic. Programs must identify relevant and desirable student learning and development outcomes and provide programs and services that encourage the achievement of those outcomes.
Learning and Program Goals:

- Create your own
- Learning Reconsidered
- Learning Reconsidered II
- CAS
- General Education Goals
16 CAS Learning Domains

- intellectual growth
- effective communication
- realistic self-appraisal
- enhanced self-esteem
- clarified values
- career choices
- leadership development
- healthy behaviors
- meaningful interpersonal relationships
- independence
- collaboration
- social responsibility
- satisfying and productive lifestyles
- appreciation of diversity
- spiritual awareness
- achievement of personal and educational goals.
# Bloom’s Cognitive Taxonomy:

<table>
<thead>
<tr>
<th>Bloom</th>
<th>Verb *</th>
<th>Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Knowledge</td>
<td>Remember</td>
<td>Write, list, label, state, define</td>
</tr>
<tr>
<td>2 Comprehension</td>
<td>Understand</td>
<td>Explain, summarize, paraphrase, illustrate</td>
</tr>
<tr>
<td>3 Application</td>
<td>Apply</td>
<td>Use, compute, demonstrate, apply, solve, construct</td>
</tr>
<tr>
<td>4 Analysis</td>
<td>Analyze</td>
<td>Analyze, categorize, contrast, compare</td>
</tr>
<tr>
<td>5 Synthesis</td>
<td>Evaluate</td>
<td>Create, design, hypothesize, invent</td>
</tr>
<tr>
<td>6 Evaluation</td>
<td>Create</td>
<td>Justify, critique, recommend, judge</td>
</tr>
</tbody>
</table>

* From: Anderson & Krathwohl (2001)
**Bloom’s Affective Taxonomy:**

<table>
<thead>
<tr>
<th>Domain</th>
<th>Verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Willingness to Receive</td>
<td>acknowledge, ask, attend, be aware, choose, follow, give, hold, identify, listen, locate, receive, reply, select, tolerate, use, view, watch</td>
</tr>
<tr>
<td>Responding, Active Participation</td>
<td>agree (to), answer, ask, assist, communicate, consent, conform, contribute, cooperate, discuss, follow-up, greet, help, inquire, participate, pursue, question, react, read, reply, report, request, respond, seek, select, visit, volunteer, write</td>
</tr>
<tr>
<td>Valuing</td>
<td>adopt, approve, complete, choose, commit, desire, display, endorse, exhibit, explain, express, form, initiate, invite, join, justify, prefer, propose, sanction, select, share,</td>
</tr>
<tr>
<td>Organization, Integration of Values</td>
<td>adapt, adhere, alter, categorize, classify, combine, complete, defend, explain, establish, formulate, order, organize, prepare, rank, rate, relate, systemize</td>
</tr>
<tr>
<td>Internalization</td>
<td>act, advocate, continue, defend, devote, disclose, display, encourage, endure, exemplify, incorporate, influence, justify, practice, question, revise, retain, support, uphold,</td>
</tr>
</tbody>
</table>
# Learning Cognitive Domain

**Example: White Privilege**

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Comprehension</th>
<th>Application</th>
<th>Analysis</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Define Unearned assets one can count on</td>
<td>Identify Point out an example</td>
<td>Dramatize Act out example during a role play</td>
<td>Compare Differentiate experiences of self and others</td>
<td>Assesses Revise one’s worldview based on new knowledge and contemplate ways to behave differently</td>
</tr>
</tbody>
</table>
# Learning Affective Domain Example

**Goal:** Become Efficient in Assessment

<table>
<thead>
<tr>
<th>Willingness To Receive</th>
<th>Responding, Active Participation</th>
<th>Valuing</th>
<th>Integration of Values</th>
<th>Internalization</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Attend</strong></td>
<td><strong>Participate</strong></td>
<td><strong>Endorse</strong></td>
<td><strong>Systematize</strong></td>
<td><strong>Devote</strong></td>
</tr>
</tbody>
</table>
## Bloom’s Cognitive Taxonomy: Goal

<table>
<thead>
<tr>
<th>Goals</th>
<th>Verb (objective)</th>
<th>How to Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comprehension</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analysis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Synthesis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Learning Affective Domain

<table>
<thead>
<tr>
<th>Willingness To Receive</th>
<th>Responding, Active Participation</th>
<th>Valuing</th>
<th>Integration of Values</th>
<th>Internalization</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Go back to our 5 column model

- Write Student Learning Outcomes
Processes

- CAS Review
  - Establish and Prepare Self-assessment Team
    - Goals/Priorities
  - Initiate Self Study
  - Identify and Summarize Evaluative Evidence
  - Identify Discrepancies
  - Determine Appropriate Corrective Action
  - Recommend Steps for Program Enhancement
  - Prepare an Action Plan

- General Assessment
  - Goals
  - Select Program and Services Initiatives
  - Assessment/Evaluation
  - Use Results for Improvement
Learning Outcomes

How do we measure learning?
1. Identify goals and measurable objectives
2. Identify programs and services that accomplish associated goals
3. Measure learning through sound data collection and interpretation
4. Use results to improve learning opportunities
Processes

Measuring Learning Outcomes

1. Identify goals and measurable objectives
2. Identify programs and services that accomplish associated goals
3. Measure learning through sound data collection and interpretation
4. Use results to improve learning opportunities

General Assessment

- Goals
- Select Program and Services Initiatives
- Assessment/Evaluation
- Use Results for Improvement
Comprehensive Assessment Model

- User Data/Satisfaction
- Assessing Student Needs
- Campus Environments
- Outcomes
- Inputs
- Motivation
How to measure objectives:

- Surveys
- Interviews (including focus groups)
- Portfolios
- Rubrics (rubric exercise)
- Observation
Your assessment plan should use...

- Multiple measures
- Indirect and direct measures
Assessment Tips

- Add learning outcomes to program evaluations
- Add assessment expectations to position descriptions
- Ask questions about assessment experience when interviewing new staff
Tips (cont’d)

- Give reading assignments when training and offer pre-tests and post-tests

- Quick, lean, and over the phone or in combination with on-line surveys

- If using qualitative methodologies, be sure you are knowledgeable and trained
Tips (cont’d)

- Consider longitudinal studies
- Do not be afraid to communicate results and when you do offer executive summaries and access to the full report
- Consider electronic portfolios and automated data collectors
- Compare against national data
Tips (cont’d)

- Search for students who could serve as inexpensive consultants
- Have access to SPSS windows
- Systematize the process, for example include survey to a mailing you already distribute
Tips (cont’d)

- Do not confuse assessments with personnel evaluations, however, include willingness to assess.

- Do not engage in assessment if you are not willing to adapt to what the data indicates.