Assessment for Improvement and Accountability

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by

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Assessment

Is like a dancer’s mirror.

It improves one’s ability to see and improve one’s performance.

Alexander Astin
1993
Assessment of Individual Student Development

- Assessment of basic skills for use in advising
  - Placement
  - Counseling
- Periodic review of performance with detailed feedback
- End-of-program certification of competence
  - Licensing exams
  - External examiners
Key Results of Individual Assessment

- Faculty can assign grades
- Students learn their own strengths and weaknesses
- Students become self-assessors
A Second Look

• Across students

• Across sections

• Across courses
Where is learning satisfactory?

What needs to be retaught?

Which approaches produce the most learning for which students?
Group Assessment Activities

- Classroom assignments, tests, projects
- Questionnaires for students, graduates, employers
- Interviews, focus groups
- Program completion and placement
- Awards/recognition for graduates
- Monitoring of success in graduate school
- Monitoring of success on the job
ASSESSMENT . . .

“a rich conversation about student learning informed by data.”

-- Ted Marchese --

AAHE
Use of Results of Group Assessment

- **Program improvement**
- **Institutional and / or state peer review**
- **Regional and / or national accreditation**
Organizational Levels for Assessment

National
Regional
State
Campus
College
Discipline
Classroom
Student
Some Purposes of Assessment

1. Students learn content
2. Students assess own strengths
3. Faculty improve instruction
4. Institutions improve programs/services
5. Institutions demonstrate accountability
Outcomes Assessment Requires Collaboration

- In setting expected program outcomes
- In developing sequence of learning experiences (curriculum)
- In choosing measures
- In interpreting assessment findings
- In making responsive improvements
Some Evaluative Questions
If we undertake a new approach:

- Is instruction more effective?
- Are students learning more?
- Are students more satisfied?
- Are faculty more satisfied?
- Do outcomes justify costs?
Good assessment is good research . . .

- An important question
- An approach to answer the question
- Data collection
- Analysis
- Report

-Gary R. Pike
To Foster Collaboration

- Name interdisciplinary committees
- Read and discuss current literature on learning/assessment
- Attend conferences together
- Bring experts to campus
- Share good practices
Most Faculty Are Not Trained as Teachers

FACULTY DEVELOPMENT

Can Help Instructors:

- Write clear objectives for student learning in courses and curricula
- Individualize instruction using a variety of methods and materials
- Ask questions that make students active learners
- Develop assessment tools that test higher order intellectual skills
# Planning for Learning and Assessment

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<td>1. What general outcome are you seeking?</td>
<td>2. How would you know it (the outcome) if you saw it? (What will the student know or be able to do?)</td>
<td>3. How will you help students learn it? (in class or out of class)</td>
<td>4. How could you measure each of the desired behaviors listed in #2?</td>
<td>5. What are the assessment findings?</td>
<td>6. What improvements might be based on assessment findings?</td>
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Direct Measures of Learning
Assignments, exams, projects, papers

Indirect Measures
Questionnaires, inventories, interviews
- Did the course cover these objectives?
- How much did your knowledge increase?
- Did the teaching method(s) help you learn?
- Did the assignments help you learn?
Primary Trait Scoring

Assigns scores to attributes (traits) of a task

**STEPS**

- Identify traits necessary for success in assignment
- Compose scale or rubric giving clear definition to each point
- Grade using the rubric
Can Develop a Research Paper

1. Narrows and defines topic
2. Produces bibliography
3. Develops outline
4. Produces first draft
5. Produces final draft
6. Presents oral defense

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Bibliography

Outstanding – References current, appropriately cited, representative, relevant

Acceptable – References mostly current, few citation errors, coverage adequate, mostly relevant

Unacceptable – No references or containing many errors in citation format, inadequate coverage or irrelevant
# Mapping Course Outcomes to Program Outcomes

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<tr>
<th>Outcomes</th>
<th>Course 1</th>
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Harvard Assessment Seminars
Penn State Pulse
Program Review at the University of Nebraska - Lincoln
US Military Academy at West Point
Group Assessment Has Failed to Demonstrate Institutional Accountability

- Focus on improvement at unit level
- Rare aggregation of data centrally
- Too few faculty involved
- HE scholars focused on K-12 assessment
Now We Have

the

Press to Assess with a Test
We need a simple way to compare institutions.

The results of student learning assessment, including value added measurements (showing skill improvement over time) should be . . . reported in the aggregate publicly.
Voluntary System of Accountability

Report Scores in critical thinking, written communication, analytic reasoning using CAAP, MAPP, CLA.
At the University of Tennessee

CAAP

Academic Profile (now MAPP)

COMP (like CLA and withdrawn by 1990)

College BASE
In TN We Learned

1) No test measured 30% of gen ed skills
2) Tests of generic skills measure primarily prior learning
3) Reliability of value added = .1
4) Test scores give few clues to guide improvement actions
An Inconvenient Truth

.9 = the correlation between SAT and CLA scores of institutions thus 81% of the variance in institutions’ scores is due to prior learning
How Much of the Variance in Senior Scores is Due to College Impact?

- Student motivation to attend that institution (mission differences)
- Student mix based on
  - age, gender
  - socioeconomic status
  - race/ethnicity
  - transfer status
  - college major
How Much of the Variance in Senior Scores is Due to College Impact? (continued)

- Student motivation to do well
- Sampling error
- Measurement error
- Test anxiety
- College effects

19 %
Word from Measurement Experts

Given the complexity of educational settings, we may never be satisfied that value added models can be used to appropriately partition the causal effects of teacher, school, and student on measured changes in standardized test scores.

- Henry Braun & Howard Wainer
Handbook of Statistics, Vol. 26: Psychometrics
Elsevier 2007
Student Motivation

- Samples of students are being tested

- Extrinsic motivators (cash, prizes) are used

  We have learned:

- Only a requirement and intrinsic motivation will bring seniors in to do their best
OECD’s AHELO
for
10 HEIs from 3-4 countries

1. Generic skills (CLA)
2. Disciplines (Engineering and Economics)
3. Value added
4. Contextual information indicators
Better Ways to Demonstrate Accountability

1. Performance Indicators
   • Access, social mobility
   • Diversity
   • Workforce development
   • Economic development
   • Engaging student experience
Better Ways to Demonstrate Accountability

2. Measures of Learning
   - Standardized tests in major fields
   - Internship performance
   - Senior projects
   - Electronic portfolios
   - External examiners
Student Electronic Portfolio

- Students take responsibility for demonstrating core skills
- Unique individual skills and achievements can be emphasized
- Multi-media opportunities extend possibilities
- Metacognitive thinking is enhanced through reflection on contents

- Sharon J. Hamilton
IUPUI
Multi-dimensional Assessment Model

Objects

Communication Skills
- Intro
- Intermed
- Adv.
- Exper

Critical Thinking
- Intro
- Intermed
- Adv.
- Exper

Integration & Application of Knowledge
- Intro
- Intermed
- Adv.
- Exper

Understanding Society & Culture
- Intro
- Intermed
- Adv.
- Exper

Values & Ethics
- Intro
- Intermed
- Adv.
- Exper

Etc ...

Time/level/Linear

Artifact

Crs grade

Assess

Interact

Reflect

Aggregate

(Reports)

All reflections for each criterion on a specific level

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Accompanying Benefits

• Teach faculty how to develop better classroom assessments
• Involve faculty in using results to improve learning
• More collaboration across disciplines and institutions
• Closer ties with community
Build Assessment into Valued Processes

1. Assessment of learning
2. Curriculum review and revision
3. Survey research
4. Program review
5. Scholarship of Teaching & Learning
6. Evaluation of initiatives
7. Faculty development
8. Promotion & tenure
9. Rewards and recognition