Critical Issues in Assessment

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First Annual Faculty Conference: Assessment
January 9, 2015
Select the best answer:

Assessment

a. Will vastly improve teaching
b. Is something we only do because of Middle States
c. Is a complete waste of time
d. Will ultimately degrade education
e. All of the above
Answer:

F. It depends . . .

. . . on how we address some critical issues
Some critical issues in the assessment process

• Are we measuring what we think we’re measuring?
• What do our results actually mean?
• Are we measuring what’s important?
Are we measuring what’s important?

Some things may not fit neatly into SLOs or PLOs?

Do we shy away from things that are more difficult to assess?
Technological Literacy Outcomes from 1st year ASET 101 was offered—2009-2010

Final Project Grade Distribution

A | B | C | D | F
---|---|---|---|---
% of Students | 15 | 25 | 30 | 20 | 10
Conclusions regarding 1st Year

• We appear to have an approximately normal distribution of grades for the final project
• Around 35% of students did not demonstrate attainment of technological literacy by the end of the course (Grades of D and F)

Conclusion: There’s lot’s of room for improvement!
Changes introduced 2010-2011

• Made final project instructions more clear—spent more time explaining
• Spent more class time in areas where students showed weakness (eg—clarifying differences between science and technology and public policy)
• Introduced new assignment—Technology In the News (TIN)
Results after 1 semester with TIN
Looked very promising

Final Project Grade Distribution
Fall Semester, 2010
Spring 2011

• Increased use of TIN assignment
• Spent more time explaining the difference between science and technology and public policy
• Required students to submit draft of final project to provide opportunity for feedback
Results during the next semester

Final Project Grade Distribution Spring Semester 2011

<table>
<thead>
<tr>
<th>Grade</th>
<th>% of Students</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>0.00</td>
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<tr>
<td>B</td>
<td>10.00</td>
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<tr>
<td>C</td>
<td>35.00</td>
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<tr>
<td>D</td>
<td>30.00</td>
</tr>
<tr>
<td>F</td>
<td>40.00</td>
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</tbody>
</table>
So we made some changes . . .

• More clearly defined course focus
• Removed some variables from the project
  – Projects done individually not in groups
  – Extensive oral presentations eliminated
• More narrow assessment focus
Redesigned final project, more focused assessments

Class Average (%)

Written Communication

2012: 56%
Made some changes to the assignment to address student weaknesses
Just a few more tweaks . . .
What does this illustrate?

• **VALIDITY**: Initially we weren’t measuring what we thought we were measuring

• **RELIABILITY**: We aren’t getting consistent results
  – How much variability is okay?

• **How do we validate our measurement instrument?**
What does this illustrate?

• Some of the variability we see is probably due to factors we are not taking into account.
  – Student preparation
  – Disruptions to the semester (weather, etc.)
  – Evening vs. day students
  – Summer vs. regular semester

• Is there a limit to how much improvement we can reasonably expect
  – How do we reasonably set our benchmarks?

• Is there a point of diminishing returns?
Time . . .

. . . Is a non-renewable resource
Select the best answer:

**Assessment**

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