**WHAT’S GOOD ENOUGH?**

**Setting Standards**

Assessment Office, University of Hawai‘i at Mānoa Aug 2013

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What’s good enough?

| “55” on the American Government College Level Examination Program (CLEP) exam |
| “3” score on the Chemistry Advanced Placement Exam |
| 76% of students scored 5 or higher for “writing” on the Speech Dept.’s senior capstone project |
What’s good enough?

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>“55” on the American Government CLEP</td>
<td>3 credits POLS 130</td>
</tr>
<tr>
<td>“3” score on the Chemistry AP Exam</td>
<td>3 credits CHEM 151</td>
</tr>
<tr>
<td>76% of students scored 5 or higher for “writing” on the Speech Dept.’s senior capstone project</td>
<td>76% of graduates are proficient writers. Target met.</td>
</tr>
</tbody>
</table>

Session Outcomes

- Understand the purpose of standard setting
- Become familiar with standard-setting methods
Agenda

1. Terminology
2. Purpose of Standard Setting
3. Key Concepts
   • Informed Judgment
   • Borderline Student
4. Multiple-choice Test
5. Task/performance: Paper, Project
6. Set Targets

Terminology

STANDARDS

Define the level of performance students are expected to obtain on the outcome

Performance standards
Cutoff scores
Performance levels
Proficiency levels
Why set standards?

Scores by themselves have no meaning.

Why set standards?

- Clarify performance expectations
- Motivate greater levels of achievement
- Allocate resources
- Decide whether to award a certificate, license, college credit
Why set standards?

• Clarify performance expectations
• Motivate greater levels of achievement
• Allocate resources
• Decide whether to award a certificate, license, college credit

Program Assessment of Student Learning

Informed Judgment

Standard setting is a blend of judgment, psychometrics, practicality.
Informed Judgment

Purpose

Knowledge of students

Process

Content knowledge

Use of standards (consequences)

Borderline Student

*Imagine students who are “just good enough” to meet a standard*

Just-qualified student
Minimally competent practitioner
Borderline Student

Proficient level, 125-200

Borderline

Borderline Students

Advanced

Proficient

Approaches Proficiency

Well Below Proficiency

Proficient level, 125-200

Borderline
Consult Existing Resources

• Disciplinary association standards
• Accreditation standards
• Peers’ program standards

• Employers

MULTIPLE-CHOICE EXAM
Standard-setting Method
Multiple-choice Exam Standard-setting (1/2)

1. Panel of faculty + stakeholders
2. Each panelist independently estimates the probability that a borderline student will answer each test item correctly
3. Each panelist’s probabilities are summed to arrive at a panelist standard

Multiple-choice Exam Standard-setting (2/2)

4. Share and discuss
   - Actual results may be shown to give panelists an indication of consequences of particular cut scores*
5. Panelists may revise probabilities
6. Panelists’ summed probabilities are averaged for the final standard ("cut score")

*If student results are available
Your Turn

HANDOUT:
Multiple-choice
Exam Standard
Setting Activity

TASK / PERFORMANCE:
PAPER, PROJECT, ORAL,
ETC.

Standard-setting Methods
Rubric-based Method (1/2)

1. Panel of faculty + stakeholders
2. Panelists discuss expectations for borderline student
3. Estimate the number of borderline students out of 100 borderline students who would receive each score possible on the rubric
4. Calculate weighted mean for each panelist.

Your Turn

HANDOUT: Task/performance (research paper rubric)
Rubric-based Method (2/2)

5. Share and discuss
   - Actual student results may be shared to give panelists
     indication of consequences of particular cut scores*

6. Discuss. Panelists may revise

7. Average the panelists’ weighted means for the
   final standard (“cut score”)

* If student results are available

Work-based Method (1/2)

**Needed**: already-scored student work

1. Panel of faculty + stakeholders

2. Panelists review samples of student work for each score point on the rubric (without knowing the scores)

3. Panelists select the student work they view as representing the borderline student (“just good enough”)
Work-based Method (2/2)

4. Discuss
5. Panelists may revise their selection
6. Later, facilitators average the scores of the work selected as *borderline* to obtain the cut-off score(s)
Set Target for Program Success

• Examples:
  • 95% will score at the “proficient” or “advanced” level
  • 100% will meet the performance standard on doctor-patient ethics

Locally-developed Instruments

• Use results from previous years as a comparison or baseline

<table>
<thead>
<tr>
<th>YEAR</th>
<th>% proficient</th>
<th>% advanced</th>
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</thead>
<tbody>
<tr>
<td>2010</td>
<td>90%</td>
<td>4%</td>
</tr>
<tr>
<td>2011</td>
<td>93%</td>
<td>3%</td>
</tr>
<tr>
<td>2012 target</td>
<td>95%</td>
<td>5%</td>
</tr>
</tbody>
</table>
Licensure Programs

• National pass rate
  • Our students’ pass rate will match or exceed the national pass rate for public institutions
• Professional accreditation requirements
  • Law school: 75% pass-rate on the bar exam

Standardized Tests

• National comparison
  • Use results from UHM peer & benchmark institutions if possible
  • Social Work program BEAP target: Our students will exceed the Public BSW-only Program mean at the 80th percentile.
### Standard Setting: Multiple-choice Exam

**World War II History Exam Excerpt: College-entry Level**

<table>
<thead>
<tr>
<th>QUESTION</th>
<th>What is the probability that a borderline proficient student will answer correctly?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. President Harry Truman’s decision to use atomic bombs against Japan was primarily based on his belief that</td>
<td></td>
</tr>
<tr>
<td>A. an invasion of Japan would result in excessive casualties</td>
<td></td>
</tr>
<tr>
<td>B. Germany would refuse to surrender in Europe</td>
<td></td>
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<tr>
<td>C. an alliance was developing between Japan and the Soviet Union</td>
<td></td>
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<tr>
<td>D. Japan was in the process of developing its own atomic weapons</td>
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<tr>
<td>2. Which action best illustrates the policy of isolationism followed by the United States before it entered World War II?</td>
<td></td>
</tr>
<tr>
<td>A. signing of a collective security pact with Latin American nations</td>
<td></td>
</tr>
<tr>
<td>B. passage of neutrality legislation forbidding arms sales to warring nations</td>
<td></td>
</tr>
<tr>
<td>C. embargo on the sale of gasoline and steel to Japan</td>
<td></td>
</tr>
<tr>
<td>D. President Franklin D. Roosevelt’s exchange of American destroyers for British naval and air bases</td>
<td></td>
</tr>
<tr>
<td>3. Which precedent was established by the Nuremberg war crimes trials?</td>
<td></td>
</tr>
<tr>
<td>A. National leaders can be held responsible for crimes against humanity.</td>
<td></td>
</tr>
<tr>
<td>B. Only individuals who actually commit murder during a war can be guilty of a crime.</td>
<td></td>
</tr>
<tr>
<td>C. Defeated nations cannot be forced to pay reparations.</td>
<td></td>
</tr>
<tr>
<td>D. Defeated nations can be occupied by the victors.</td>
<td></td>
</tr>
<tr>
<td>4. “The great rule of conduct for us in regard to foreign nations is, in extending our commercial relations, to have with them as little political connection as possible.”</td>
<td></td>
</tr>
<tr>
<td>This quotation supports a foreign policy of</td>
<td></td>
</tr>
<tr>
<td>A. imperialism</td>
<td></td>
</tr>
<tr>
<td>B. appeasement</td>
<td></td>
</tr>
<tr>
<td>C. neutrality</td>
<td></td>
</tr>
<tr>
<td>D. economic sanctions</td>
<td></td>
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</tbody>
</table>

Standard Setting: Task/Performance

Estimate the number of students out of 100 borderline proficient students who would fall into each score category (total must be 100).

Research Paper Rubric

<table>
<thead>
<tr>
<th></th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FOCUS</strong></td>
<td>Sharp, distinct controlling point made about a single topic with evident awareness of task.</td>
<td>Apparent point made about a single topic with sufficient awareness of task.</td>
<td>No apparent point but evidence of a specific topic.</td>
</tr>
<tr>
<td><strong>CONTENT</strong></td>
<td>Substantial, specific, and/or illustrative content demonstrating strong development and sophisticated ideas.</td>
<td>Sufficiently developed content with adequate elaboration or explanation.</td>
<td>Limited content with inadequate elaboration or explanation.</td>
</tr>
<tr>
<td><strong>ORGANIZATION</strong></td>
<td>Sophisticated arrangement of content with evident and/or subtle transitions.</td>
<td>Functional arrangement of content that sustains a logical order with some evidence of transitions.</td>
<td>Confused or inconsistent arrangement of content with or without attempts at transition.</td>
</tr>
<tr>
<td><strong>STYLE</strong></td>
<td>Precise, illustrative use of a variety of words and sentence structures to create consistent writer's voice and tone appropriate to audience.</td>
<td>Generic use of a variety of words and sentence structures that may or may not create writer's voice and tone appropriate to audience.</td>
<td>Limited word choice and control of sentence structures that inhibit voice and tone.</td>
</tr>
<tr>
<td><strong>CONVENTIONS</strong></td>
<td>Evident control of grammar, mechanics, spelling, usage and sentence formation.</td>
<td>Sufficient control of grammar, mechanics, spelling, usage and sentence formation.</td>
<td>Limited control of grammar, mechanics, spelling, usage and sentence formation.</td>
</tr>
<tr>
<td><strong>SOURCES</strong></td>
<td>Skillful use of high quality, relevant, credible sources.</td>
<td>Consistent use of credible, relevant sources.</td>
<td>Attempt to use credible and/or relevant sources.</td>
</tr>
<tr>
<td><strong>Number of borderline proficient students</strong></td>
<td>________</td>
<td>________</td>
<td>________</td>
</tr>
</tbody>
</table>