MIRACLES CAN HAPPEN IN ASSESSMENT:

DEVELOPING AN ASSESSMENT ACADEMY
YOUR DIVINER

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Professor of Mathematics
Aims Community College
WHY DEVELOP AN ASSESSMENT ACADEMY?
A FIRST A BRIEF HISTORY...

Baggage

Pitfalls

Lessons

Yep...we got em’

"C’mon, c’mon—it’s either one or the other."
What is assessment?

the systematic collection of information about student learning, using the time, knowledge, expertise, and resources available, in order to inform decisions about how to improve learning.

(Walvoord, 2004)
BIG PICTURE GOALS
FOR ASSESSMENT OF
STUDENT LEARNING

1. Build common language

2. Help faculty to use best practices in assessment to improve student learning

3. Attempt to change culture around assessment
CHANGE IS HARD, BUT...

IF YOU CHANGE NOTHING, NOTHING WILL CHANGE.

thingsweforget.blogspot.com
FRAMEWORK QUESTIONS

• Offer how many times a year?
• When?
• Length?
• Pay to attend (stipend) or contract day? If so, at what rate?
• Food?
• What to include (framework)?
• Who should attend?
ASSESSMENT ACADEMY FRAMEWORK

• Offer three times a year
  • Prior to the start of each term
  • August, January, May

• Two FULL days
  • 7 hours each day
  • Working lunch
ASSESSMENT ACADEMY FRAMEWORK

• Pay or contract day...it depends. Look at
  • type of employee, under contract that term, before contract days start

• Must feed
  • Buy the good stuff!
  • Light breakfast (coffee!!), snacks, lunch
ASSESSMENT ACADEMY DESIGN

• Framework depends on
  • goal of the academy
  • needs of attendees
  • more on this to come

• Anyone who teaches a course and anyone who supervises these people
  • Faculty, full and part-time
  • Staff who teach courses, full and part-time
  • Academic deans, Chief academic officer
SO WHO SHOWS UP...

The Player

The glass is half full!

The glass is half empty.

The Critic

Half full... No! Wait! Half empty! No, half... what was the question?

Hey! I ordered a cheeseburger!

The Spectator

The four basic personality types

The Saboteur
Day 1

- Warm-up, 3 questions activity
- Assessment basics
  - Only “interactive lecture” during workshop
- Learning goals activity
  - Angelo and Cross
- Outcome vs objective
  - Brief PPT
- Learning goals and project brainstorming
- Project discussion, basic outline
Day 2

- Follow-up to 3 questions activity
  - Must address fears
- Writing learning outcomes activity
  - Find one that fits your college
- Drafting learning outcomes for project
  - Must connect course/program outcomes to learning outcomes
- Assessment technology overview
- Rubric conversation
  - Needs of the group
- Project depth development and planning
  - Connections to learning outcomes developed
SUPPLEMENTAL READINGS AND REFERENCE

Assessing Student Learning: A Common Sense Guide
Linda Suskie
Second Edition
At the end of the academy, participants should be able to clearly state (classify) types of assessments used in their courses to measure student learning.

At the end of the academy, participants should be able to write a learning outcome using the ABCD method.

At the end of the academy, participants should be able to create an assessment project to implement/pilot in a course/program by _____ term 201__. (asking to do by next term)
ACTIVITY AND INTERACTION TIME

GOT A PENCIL?
DAY 1
WARM-UP

Why did you decide to attend the Assessment Academy? If your dean made you come, please share another reason for attending as well.

What do you hope to get from the Assessment Academy?

What scares you the most about assessment of student learning and why?
WHAT SCARES YOU THE MOST ABOUT ASSESSMENT OF STUDENT LEARNING AND WHY?

From the Spring 2015 academy:

1. Time

2. Effort/work

3. Lack of value to me or to students

4. Reflects poorly on me...what I thought I was doing and what I am really doing...gap

5. Unethical use of data/punitive/evaluation tool
TWO KEY ACTIVITIES

Uncovering Learning Goals and Writing Learning Outcomes
FIRST-LEARNING GOALS
CHAPTER 2: TEACHING GOALS INVENTORY SCORE SHEET
PURPOSE

Threefold:

• help college teachers become more aware of what they want to accomplish in individual courses

• to help faculty locate Classroom Assessment Techniques they can adapt and use to assess how well they are achieving their teaching and learning goals

• to provide a starting point for discussions of teaching and learning goals among colleagues.
HERE WE GO...

1. Choose course or program on which to focus

2. Complete inventory independently using the rating system

   (5) Essential a goal you always/nearly always try to achieve
   (4) Very important a goal you often try to achieve
   (3) Important a goal you sometimes try to achieve
   (2) Unimportant a goal you rarely try to achieve
   (1) Not applicable a goal you never try to achieve
<table>
<thead>
<tr>
<th>#</th>
<th>Learning Goal for the chosen course</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Develop ability to apply principles and generalizations already learnt to new problems and situations.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Develop analytical skills.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>3</td>
<td>Develop problem-solving skills.</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Develop ability to draw reasonable inferences from observations.</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Develop ability to synthesize and integrate information and ideas.</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Develop ability to think holistically: to the whole as well as the parts.</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Develop ability to think creatively.</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Develop ability to distinguish between fact and opinion.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

Tally for each rating column in the above section. (Higher-Order-Thinking)
1. In all, how many of the fifty-two goals did you rate as “essential” (rating=5)? 9

2. How many “essential” goals did you have in each of the six clusters listed below?

<table>
<thead>
<tr>
<th>Cluster Number and Name</th>
<th>Goals included in Cluster</th>
<th>Number of “Essential” Goals in Each Cluster (rated as 5)</th>
<th>Cluster Rank (1 through 6, based on # of “essential” goals)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I  Higher-Order Thinking Skills</td>
<td>1 – 8</td>
<td>2</td>
<td>2nd</td>
</tr>
<tr>
<td>II Basic Academic Success Skills</td>
<td>9 – 17</td>
<td>2</td>
<td>2nd</td>
</tr>
<tr>
<td>III Discipline-Specific Knowledge and Skills</td>
<td>18 – 25</td>
<td>1</td>
<td>3rd</td>
</tr>
<tr>
<td>IV Liberal Arts and Academic Values</td>
<td>26 – 35</td>
<td>0</td>
<td>4th</td>
</tr>
<tr>
<td>V Work and Career Preparation</td>
<td>36 – 43</td>
<td>1</td>
<td>3rd</td>
</tr>
<tr>
<td>VI Personal Development</td>
<td>44 – 52</td>
<td>3</td>
<td>1st</td>
</tr>
</tbody>
</table>
STEP 3
THE TRICKY ONE

the mathematics portion of the exercise...

3. Compile results (you will have to so do some math!)

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Develop ability to apply principles and generalizations already learnt to new problems and situations.</td>
<td>X</td>
</tr>
<tr>
<td>2</td>
<td>Develop analytical skills.</td>
<td>X</td>
</tr>
<tr>
<td>3</td>
<td>Develop problem-solving skills.</td>
<td>X</td>
</tr>
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<td>4</td>
<td>Develop ability to draw reasonable inferences from observations.</td>
<td>X</td>
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<td>5</td>
<td>Develop ability to synthesize and integrate information and ideas.</td>
<td>X</td>
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<td>6</td>
<td>Develop ability to think holistically: to the whole as well as the parts.</td>
<td>X</td>
</tr>
<tr>
<td>7</td>
<td>Develop ability to think creatively.</td>
<td>X</td>
</tr>
<tr>
<td>8</td>
<td>Develop ability to distinguish between fact and opinion.</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Tally for each rating column in the above section. (Higher-Order Thinking)</td>
<td>2 2 4</td>
</tr>
<tr>
<td>9</td>
<td>Improve skill at paying attention.</td>
<td>X</td>
</tr>
</tbody>
</table>

Tally for each rating column in the above section. (Higher-Order Thinking)
## Use the Rating Sum to Rank

<table>
<thead>
<tr>
<th>Cluster Number and Name</th>
<th>Goals included in Cluster</th>
<th>Rating Sum of Goals in Cluster</th>
<th>Divide Sum by this Number</th>
<th>Average Cluster Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>I  Higher-Order Thinking Skills</td>
<td>1 – 8</td>
<td>30</td>
<td>8</td>
<td>3.75</td>
</tr>
<tr>
<td>II Basic Academic Success Skills</td>
<td>9 – 17</td>
<td>32</td>
<td>9</td>
<td>3.56</td>
</tr>
<tr>
<td>III Discipline-Specific Knowledge and Skills</td>
<td>18 – 25</td>
<td>28</td>
<td>8</td>
<td>3.50</td>
</tr>
<tr>
<td>IV Liberal Arts and Academic Values</td>
<td>26 – 35</td>
<td>25</td>
<td>10</td>
<td>2.50</td>
</tr>
<tr>
<td>V  Work and Career Preparation</td>
<td>36 – 43</td>
<td>23</td>
<td>8</td>
<td>2.88</td>
</tr>
<tr>
<td>VI Personal Development</td>
<td>44 – 52</td>
<td>34</td>
<td>9</td>
<td>3.78</td>
</tr>
</tbody>
</table>
ALMOST THERE

4. Compare results as a department
   • see table in handouts

5. Develop 3-5 goals for this course/program
   • Backside of department table handout
LEARNING GOALS FOR ANY MATH CLASS

Engage students in sound mathematical thinking and reasoning.

Provide a setting that prepares students to read and learn mathematics on their own.

Explore multiple representations of topics including graphical, symbolic, numerical, oral, and written.

Analyze the structure of real-world problems and plan solution strategies.

Develop a mathematical vocabulary by expressing mathematical ideas orally and in writing.
TURNING GOALS (OR OBJECTIVES) INTO LEARNING OUTCOMES

Learning Goals (big ideas) or Objectives (teacher actions) and revise to write Learning Outcomes (student actions)
SECOND-WRITING LEARNING OUTCOMES

Outcome Writing – The 3 Ms

**Meaningful:**
How does the outcome support the departmental mission or goal?

**Manageable:**
What is needed to foster the achievement of the outcome? Is the outcome realistic?

**Measurable:**
How will you know if the outcome is achieved? What is the assessment method?
SECOND-WRITING LEARNING OUTCOMES

Student learning outcomes statements clearly state the expected knowledge, skills, attitudes, competencies, and habits of mind that students are expected to acquire at an institution of higher education.

National Institute for Learning Outcomes Assessment
http://www.learningoutcomeassessment.org/TFComponentSLOS.htm
Example of drafting, clarifying, and improving intended learning outcomes

Phrenology 101

1. On completion of this course, you should be able to:

   A. Demonstrate enhanced knowledge of the basic tenets of phrenology and its history

   B. Demonstrate understanding of what was current best practice of phrenology, as it was practiced in England of the 1840s

   C. Appreciate the relationship of phrenology to neuroscience


Vague and hard to measure

See Examples handout/online for stages of improved revisions
ABCD STRUCTURE OF A LEARNING OUTCOME:

**Audience/Who**

- Who does the outcome pertain to?

**Behavior/What**

- What do you expect the audience to know/be able to do? *(This needs to include an action verb to describe the learning, chosen from the Bloom’s Taxonomy work bank on page 2.)*

**Condition/How**

- Under what conditions or circumstances will the learning occur?

**Degree/How much**

- How much will be accomplished, how well will the behavior need to be performed, and to what level?

Thank you to Campus Labs
PROGRAM OUTCOME OR LEARNING OUTCOME?

For each of the statements below, identify…

Is the statement a program or learning outcome statement?

What information is missing? How could the outcome be strengthened?

1. The Undergraduate Research Office will increase support for student attendance at regional, national, and international conferences.

2. Students will be able to demonstrate effective communication skills as a result of participating in the Leadership Program.

3. The Wellness Program will increase the number of smoking cessation seminars offered by 20% by hiring a graduate assistant to conduct the seminars.
READY TO PRACTICE?
IDENTIFYING THE PARTS OF A LEARNING OUTCOME

Students who attend advising sessions will choose courses that fulfill their chosen degree requirements.

Audience: Students

Behavior: will choose courses

Condition: who attend advising sessions

Degree: that fulfill their chosen degree requirements
COMPONENTS

Students should be able to produce a detailed mathematical narrative for each step of a problem using appropriate terminology, processes, and structure using a Boardwork model side by side design approach.

Audience:

________________________________________________________________________

Behavior:

________________________________________________________________________

Condition:

________________________________________________________________________

Degree:

________________________________________________________________________
Students should be able to produce a detailed mathematical narrative for each step of a problem using appropriate terminology to address both mathematical processes and structure using a Boardwork model side by side design approach.

**Audience:** Students

**Behavior:** should be able to produce a detailed mathematical narrative

**Condition:** to address both mathematical processes and structure using a Boardwork model side by side design approach.

**Degree:** for each step of a problem using appropriate terminology
HIGHLIGHTS FROM THE ACADEMY

Fall 2014
• 16 full/part time faculty
• Majority attended because asked to do so by chair or dean

Projects were to be implemented by Spring 2015
• 1 departmental project
• 3 individual class projects
• 2 course/departmental projects still in exploring/developing stage

Spring 2015
• 34 full/part time faculty
• Majority attended because they were interested in learning more about assessment

Projects are to be implemented by Fall 2015
• 6 departmental projects in development
• 3 individual class projects piloting
• 2 course/departmental projects still in exploring stage
What is the most important thing you learned at the Assessment Academy?

“My most important take away is how valuable this can be for students. Assessment is a tool that can help us show our students how and why they are learning what they are learning. It’s a way for students to understand the investment they can make in themselves for their own success and we're there to facilitate that success.”

Marge Lambeth ~ Sociology
QUESTIONS?
REFERENCES


DO YOU NEED AN ASSESSMENT ACADEMY?

I can help you start one at your institution or run one for you.
THANK YOU!
DR. SHELLY RAY PARSONS
shelly.parsons@aims.edu