TEAK/TA Teaching Workshop

Session 4: Classroom Assessment Techniques

Dr. Elizabeth DeBartolo, Mechanical Engineering  
Dr. Margaret Bailey, Mechanical Engineering  
Sarah Cass, RIT Teaching and Learning Center
Session Activities…

• Assessment and evaluation techniques

• Objectives:
  • Recognize value of assessment and evaluation
  • Help students learn through assessment
  • Apply a new technique to a lesson you are developing
Terminology

What is the difference between Assessment and evaluation?
Assessment...

• ...is the systematic, on-going, iterative process of monitoring learning in order to determine what we are doing well and what we could improve.
  • Assessment involves observing, describing, collecting, recording, scoring, and interpreting information.
Evaluation…

• … determines the effectiveness of a program in light of the attainment of pre-set priorities and goals.
  • Evaluation helps document whether a program is accomplishing its goals or not.
  • It identifies program weaknesses and strengths and the areas that need revision.

Grades
• Translation of an assessment into a specific measurement scale
Our challenge:

To find ways to use assessment to promote learning.

How?

• What techniques are effective?
• What tools are available?
• How much time will it take?
Examples

Assessment experiences that:
1. Require active listening from students.
2. Help instructors identify students who need special help or who lack adequate preparation for the course.
3. Help students identify for themselves how they are doing.
4. Help students understand that they are learning something substantial.

Let's look at some viable techniques…
Ways to assess student learning

- Traffic Light
- Student-based Assessment
  - Self Assessment
  - Peer Assessment
  - Student Feedback to Instructor
- One Sentence Summary
- Partner Progress
- Summary Swap
Traffic Light

• At the beginning of the quarter, or class, distribute three cards (green, yellow, red).

• Instructs students to:
  • Keep the green card visible if they are following what is being communicated.
  • Display the yellow card if they are confused.
  • Flash the red card if they are lost or disagree with what is being said.
Student-based Assessment

• Self Assessment
  • Contingent on ability to deal with feedback.
  • Portfolios support development of self-assessment skills.

• Peer Assessment
  • Students learn how to use criteria to gauge their reaction to the work of others and to provide constructive feedback.
  • In group work, can use peer-to-peer feedback sheets to affect behavioral changes.
Student-based Assessment

- Student Feedback to the Instructor
  - Instructor asks question about her/his teaching and invites student responses.
  - Allows feedback to flow both ways.
  - Can be on paper or electronic

- “What is going well in the course/activity?”
- “How could the course/activity be improved?”
One Sentence Summary

• One-sentence Summary
  • Challenges students to summarize a given subject in one long summary sentence.
  • Can be given credit in participation grade
Partner Progress

• Ask students to turn to one another and compare notes or exchange any questions or concerns about the class content.
  • Give them 3-5 minutes.
  • After this activity ask what they learned about the content or another person’s perspective.
  • Ask what questions they have as a result of the partner exchange.
Summary Swap

• After a period of time (10 min.), ask students to summarize the key learnings from that class segment.
  • On an index card with name noted, use one side to record their summary (2 min.)
  • Ask everyone to exchange the card with someone. The person who received the card reads it and adds anything they think is important that the card “owner” left out.
  • Exchange cards 2-3 times with different students and at end return card to “owner.”
Wrap-Up and Practice

• Discussion: How could you incorporate an assessment technique in your Micro-Teaching lesson?

• Micro-Teaching Activity:
  • Create conceptual plan for incorporating an assessment technique
  • Recognize potential difficulties that may arise
  • Estimate time required and create test plan
  • How will you use the results?
Resources

• Maryellen Weimer
  • Learner-Centered Teaching

• Classroom Assessment Techniques
  http://www.flaguide.org/cat/cat.htm

Before you go…

• Please fill out an evaluation form
• Prepare for (recorded) microteaching activity next time!
• If you have any questions in the meantime, feel free to contact the instructor.
Support for this work was provided by the National Science Foundation's Course, Curriculum, and Laboratory Improvement (CCLI) program under Award No. DUE-0737462. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.