

The Assessment Tool Kit for Faculty

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Overview of Workshop

- Brief overview of the assessment process and components of an assessment plan
- Reminder of importance of good outcomes
- Overview of available tools to measure student learning and how they are properly implemented
- Individual activity/group report-out
- Discussion of possible partnerships in assessing student learning
- Individual activity/group report-out

The Iterative Systematic Assessment Cycle

Adapted from Peggy Maki, Ph.D.
by Marilee Bresciani, Ph.D



Typical Components of an Assessment Plan

- Mission
- Objectives
- Outcomes
- Evaluation Methods
 - By Outcomes
- Implementation of Assessment
 - Who is Responsible for What?
 - Timeline
- Results
- Decisions and Recommendations

Meaningful Assessment Plans Must Have...

Meaningful and
Measurable
Outcomes...

Outcomes

- Outcomes are more detailed and specific statements derived from the goals.
- These are specifically about what you want the end result of your efforts to be. It is not what you are going to do to the student, but rather what you want the student to know or do.
- They use active verbs such as demonstrate, articulate, illustrate, conduct, etc

Additional Assistance Constructing Learning Outcomes: Bloom's Taxonomy

- <http://www.teachers.ash.org.au/researchskills/dalton.htm>
- http://www.kent.wednet.edu/KSD/MA/resources/blooms/teachers_blooms.html
- <http://www.coun.uvic.ca/learn/program/hndouts/bloom.html>
- Terms: construct, locate, dissect, categorize, compose, invent.....

Questions to Ask Yourself About Outcomes

- Is it measurable?
- Is it meaningful?
- Is it manageable?
- Who is the target audience of my outcome?
- Who would know if my outcome has been met?
- How will I know if it has been met?
- Will it provide me with evidence that will lead me to make a decision for continuous improvement?

Examples of Outcomes

- Students will be able to compare and contrast various aspects of 14th century Italian art with Post-Renaissance Art.
- Students Observing a student critique what is not working in an assigned chemical interaction experiment in the lab
- Students will apply statistical calculations in SAS to the problems identified in their senior capstone projects.

Evaluation Methods

Choosing Methods to
Evaluate Your
Outcomes

Before Choosing an Assessment Method...

- Think about what meeting the outcome looks like
 - Be sure to describe the end result of the outcome by using active verbs
 - This helps articulate the criteria for identifying when the outcome has been met
- Describe how your program is delivering the outcome
 - There may be clues in the delivery of the outcome that help you determine how to evaluate it

Before Choosing an Assessment Method, Cont.

- Think about collecting data
 - from different sources to make more meaningful and informed decisions for continuous improvement (*e.g., surveys, observations, self-assessment*) and for triangulation of data
 - that you believe will be useful in answering the important questions you have raised
 - that will appeal to your primary constituents or to those with whom you are trying to influence

Measurement Methods

(Palomba and Banta, 1999)

- Evidence of learning- basically two types
 - Direct-methods of collecting information that require the students to display their knowledge and skills
 - Indirect- methods that ask students or some one else to reflect on the student learning rather than to demonstrate it

Another Way to Look at It (Ewell, 2003)

- There are **naturally occurring assessment techniques** (e.g. project-embedded assessment methods such as essays, observed behavior, student interactions, student debates)
- There are those **designed** as a means to evaluate (e.g., surveys)

Some Methods That Provide Direct Evidence



- Student work samples
- Collections of student work (e.g. Portfolios)
- Capstone projects
- Project-embedded assessment
- Observations of student behavior
- Internal juried review of student projects
- Evaluations of performance

Direct Evidence Cont.

from Peggy Maki, Ph.D.

- External juried review of student projects
- Externally reviewed internship
- Performance on a case study/problem
- Performance on problem and analysis (Student explains how he or she solved a problem)
- Performance on national licensure examinations
- Locally developed tests
- Standardized tests
- Pre-and post-tests
- Essay tests blind scored across units

Some Methods That Provide Indirect Evidence

from Peggy Maki, Ph.D.

- Alumni, Employer, Student Surveys
- Focus groups
- Exit Interviews with Graduates
- Graduate Follow-up Studies
- Percentage of students who go on to graduate school
- Retention and Transfer Studies
- Job Placement Statistics

Indirect Evidence Cont.

- Faculty/Student ratios
- Percentage of students who study abroad
- Enrollment trends
- Percentage of students who graduate within five-six years
- Diversity of student body
- CAS Standards

Choosing A Tool

- It is important to choose tools based on what you are trying to assess, not on what tool is most appealing to you
- Consider what will influence your constituents
- Consider what will provide you with information to make decisions
- Be able to justify your choice of tool and method

Things to Consider When Choosing an Instrument

- What outcome(s) are you measuring?
- What criteria will determine if the outcome is met?
- Who is being assessed? How often do I have access to them? Do I know who they are?
- What is my budget?
- What is my timeline?
- What type of data is most meaningful to me: direct/indirect and qualitative/quantitative

Things to Consider, Cont.

- Who will analyze the data and how?
- Who needs to see this data?
- How easily can I fit this method into my regular responsibilities? (every day, week, semester, year)
- Who needs to make decisions with this data?
- How will I document the evidence and the decisions made from that evidence?

Example:

- Naturally –Occurring evidence: Observing a student critique what is not working in an assigned chemical interaction experiment in the lab
- Designed evidence: Asking for the student to select from a self-report survey the extent to which they learned that which was expected from them in the lab experiment

Examples Continued:

- Naturally Occurring evidence: Asking students to identify and then compare and contrast the aspects that are present in a 14th century Italian art artifact and Post-Renaissance Art artifact.
- Designed evidence: Asking the students whether they learned how to compare and contrast the aspects that are present in a 14th century Italian art artifact and Post-Renaissance Art artifact (Self-report)

Which Tools Seem Most Appropriate to Measure Your Outcomes?

~Not everything that can be counted counts, and not everything that counts can be counted. -Albert Einstein

(Patton, 2002, pg 12)

Tools for Measuring Learning

- Interviews
- Focus Groups
- Observations
- Surveys
- Criteria and Rubrics
- Case Studies
- Portfolios

Why Use Interviews and Focus Groups?

- Gather rich data-more detail
- Subjects for which you want to be able to follow up on comments
- Gather data on subjects that you know very little about so you can better design surveys
- Supplemental information for other methods
- To explain survey results - follow-up on more general survey questions

Which Method Is Most Useful To Me? (flexible, meaningful, manageable)

- **What is the topic?** Is it a very sensitive subject? Is confidentiality particularly important? More/varied views
- **What is your timeline?** Focus groups-more people at one time but can be hard to schedule
- **How large is the population?** Focus groups-more people at one time
- **Do you have help?** Focus groups-need a note taker
- **Do you have a budget?**
- **How easily can I fit this method into my annual responsibilities?** Individual interviews conducted regularly may be easier
- **You can always do both!**

Interviews/Focus Groups

- Possible Outcomes:
 - Students will describe characteristics of a classroom environment that advocates for diversity.
 - Students will identify and relate media coverage to anxiety related behavior in high profile settings.
- Use interviews or focus groups to ask questions that allow students to demonstrate these outcomes. You can also ask questions about how they learned the information and how to improve the interpretation and dissemination of the information.

Observations

- Observing people as they engage in an activity.
- Continuum: participant-observer

Observations

- Possible outcomes:
 - Students will demonstrate the ability to collaborate and work productively within groups.
 - Student will critique what is not working in an assigned chemical interaction experiment in the lab.
 - Students will be able to explain statistic results to a non-statistically inclined audience.
- Observations of actual student work can be used (with identified criteria) to determine if student are meeting outcomes. The observer may have a check list that is used at the time of the observation or take notes and review the notes for the criteria at a later time.

Surveys-

- Create your own, which will most likely be self-report.
- Use a national standardized survey such as the NSSE to measure students' personal code of values and ethics or contribution to the welfare of their community.

What is a Rubric?

A rubric is "a set of criteria and a scoring scale that is used to assess and evaluate students' work. Often rubrics identify levels or ranks with criteria indicated for each level."

- - Campbell, Melenyzer, Nettles, and Wyman, 2000

Why Use a Rubric

- Provide faculty and students with rich and detailed descriptions of what is being learned and what is not
- Combats accusations that faculty does not know what he/she is looking for in learning and development
- Can be used as a teaching tool – students and faculty begin to understand what it is they are or are not learning or are or are not able to demonstrate what they know and can do

For example

- You can use a rubric to
 - Norm faculty and students' expectations
 - Inform students of what you are looking for
 - Give students an opportunity to see how they have improved
 - Make rankings, ratings, and grades more meaningful
 - Help students identify their own learning and development or absence thereof
 - Assess a student, course, or a program

Some Types of Rubrics

- Checklist - A simple list of criteria and possibly a rating scale

1. 2-minute description of ethical dilemma _____
2. Explanation of reason for ethical dilemma _____
3. Explanation of ethical dilemma _____
4. Depth of awareness of potential barriers to resolving ethical dilemma _____
5. Illustration of expected results in resolving dilemma _____

Y = Yes

N = No or

4 = Excellent

1 = Poor

Excerpt for Oral Presentation Outcome

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		Oral Presentation Rubric		
Presenter's Name: _____				
	Distinguished	Intermediate	Novice	
Volume	Presenter is easy to hear.	Audience is able to hear as a whole, but there are times when volume is not quite adequate.	Presenter is difficult to hear.	
10	10	5	0	
Rates	Rates of speech are appropriate.	Speaker may at times seem like s/he is rushing or exaggerating pauses.	The rates of speaking are too slow or too fast.	
10	10	5	0	
Mannerisms	Speaker makes eye contact with everyone and has no nervous habits. Speaker has excellent posture.	Eye contact may focus on only one member of the audience or a select few members. Mildly distracting nervous habits are present but do not override the content.	Very little eye contact is made with the audience. It may sound like the speaker is reading the presentation. Nervous habits that distract the audience are present.	
10	10	5	0	
Engagement	Presentation involves audience, allowing time for audience to think and respond.	Audience is involved but inadequate processing or response time is provided.	Speaker does not involve audience.	
10	10	5	0	

Case Studies

- Scenarios designed to encourage critical thinking and discussion about a topic.
- Case studies allow the students to teach each other as well as gather evidence of student learning and development which can be used for program improvement.

Case Studies

- Example outcome – Students will be able to identify ethical dilemmas in research and propose various solutions.
- Students are provided scenarios involving possible ethical dilemmas in research and are asked to discuss and provide various realistic solutions to the dilemmas.

What is a Portfolio in the Context of this Workshop?

- Portfolios are a collection of artifacts to demonstrate that one has accomplished that which he/she said he/she would accomplish
- Portfolios can be used to assess a
 - student's learning and development,
 - a program's accomplishments,
 - an institution's accomplishments,
 - or a professional's achievements
- Portfolios can come in a variety of forms

Electronic Portfolios as Knowledge Builders

by Barbara Cambridge

- Portfolios can feature multiple examples of work
- Portfolios can be context rich
- Portfolios can offer opportunities for selection and self-assessment
- Portfolios can offer a look at development over time

Electronic Portfolios

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- Students can store artifacts of learning across the course of their entire academic career
- Students can store evidence of learning from the curricular and co-curricular, from internships and service
- Can allow for sharing of artifacts across departmental lines and across College lines
- Can provide evidence of shared institutional learning principles or competencies (e.g., general education)

Work Time

- Choose a learning/development outcome that you wrote earlier.
- How might you measure this?
- Ask the questions found earlier in this presentation

If You are Still Having Trouble...

- Diagram or map which course, activity, program, project, or workshop is delivering or is producing each intended outcome.
 - Once you have identified how you are delivering each outcome, you can list out the activities and literally map them to the outcomes, which they are delivering.

An Example of a Concept Map

	Activity/Project/Course 1	Activity/Project/Course 2	Etc.	Etc.
Outcome 1				
Outcome 2				
Outcome 3				
Etc.				

Determine if the courses, activities, workshops, and/or projects, are useful and appropriate in achieving your stated outcome.

Identify the embedded artifact or naturally occurring assessment technique in the delivery of the course/activity/project, etc.

Choose an Outcome and

Work through
this Process

On-Line Resources

- <http://school.discovery.com/schrockguide/assess.html>
- <http://www.odyssey.on.ca/~elaine.coxon/rubrics.htm>
- <http://rubistar.4teachers.org/>
- http://intranet.cps.k12.il.us/Assessments/Ideas_and_Rubrics/ideas_and_rubrics.html
- http://teachers.teach-nology.com/web_tools/rubrics/

Questions?

http://www.ncsu.edu/undergrad_affairs/assessment/assessment.htm

References

- Bresciani, M.J., Zelna, C.L., and Anderson, J.A. (In Press, expected November 2003). *Techniques for Assessing Student Learning and Development in Academic and Student Support Services*. Washington D.C.:NASPA.
- Maki, P. (2001). *Program review assessment*. Presentation to the Committee on Undergraduate Academic Review at NC State University.
- Palomba, C.A. and Banta, T.W. (1999). *Assessment essentials: Planning, implementing and improving assessment in Higher Education*. San Francisco: Jossey-Bass.

One Minute Evaluation

- What is the most valuable thing that you learned from this workshop?
- What is one question that you still have?