Assessing student learning in your course: Linking to course and program outcomes

A workshop for the College of Humanities and Social Sciences facilitated by
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Center for Excellence in Teaching and Learning

Kennesaw State University
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What is assessment?

The "systematic collection, review, and use of information about educational programs undertaken for the purpose of improving learning" (Palomba & Banta, 1999)

Assessment addresses four fundamental questions:

1. What should our students be learning?

2. How do we know our students have learned?

3. How successful have we been at helping our students learn?

4. What are we changing to help our students learn better?

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Creating shared purpose: Classroom and Program Assessment

Classroom-level Assessment

Used to facilitate improvement in **teaching and learning**

Program-level Assessment

Used to facilitate improvement in **curricula**

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Agenda

- Designing assessments for your course

  – Selecting direct and indirect measures

  – Collecting data with rubrics or other scoring systems

  – Summarizing your data for reporting

- Discussion

  – Linking course, program, and college level assessment

  – Creating a common base of understanding

Workshop objectives

After today's workshop, you should be able to:

- Choose from a mixture of direct and indirect measures you can apply in your class to address student learning outcomes.

- Create a plan to collect data about student learning using rubrics or other scoring systems .

- Select a strategy for preparing a report to organize and summarize evidence of student learning.

- Converse with colleagues in CHSS about assessment from a common base of understanding

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Narrative assessment process for one outcome in a single course:

SLO: Students can compare and contrast a historical issue from both a U.S. and a target-culture perspective

Department/Program: History and philosophy/B.A. History

Course: HIST 3332 - U.S. Social and Cultural History, FA15

Assignment: Course project with oral presentation

Description of measure: Assignment rubric describing expectations for quality in comparing and contrasting perspective, critical U.S. perspectives, and critical target-culture perspectives

Results and findings: 12 projects were completed, with an average score of 3.6/4 on the rubric. Four projects scored 4/4, three projects scored 3/4, and one project scored 2/4. All projects were able to identify strong issues to compare and contrast, but some struggled to account for the different perspectives, especially for the target culture.

Actions planned: One day in the course will be revised to address different perspectives specifically, with an assignment that has been revised to include this issues and to help students use specific resources illuminating these perspectives.

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Summary assessment process for one outcome in a program:
Students create digital artifacts w/ awareness of theory, audience and historical context

Assignment/ activity	Who and where	Measurement tool	Results
Digital public service announcement Assignment	DWMA 3430 – Visual Design I for Content Creators (instructor A)	Holistic grading rubric	Fall 2015: n=34, avg. 2.9/4. Distribution: 4(13), 3(11), 2(4), 1(6) Strengths and areas for improvement noted
Group project	DWMA 3800 – Front End Development II (instructor B)	Project rubric	Spring 2015 : n=7, avg. 3.4/4. Distribution: 4(4), 3(2), 2(1), 1(0) Strengths and areas for improvement noted
Student survey	DWMA 4800 – Project Portfolio (assessment coordinator)	Selected survey question	2015: n=5, avg. score 2.9/5. Target 3.2

Actions: Continued emphasis on audience and context in the selected courses has resulted in continued improvement on this outcome in both courses. Due to some groups struggling with their project it was decided at a department meeting in August 2015 that two assignments on the project would be turned in for feedback before the final product the next time the course is taught.

Assessment always flows from intended student learning outcomes (SLOs)

You have specific:

1. Program SLOs
2. Course SLOs that should relate to your program SLOs

Let's consider a common one: *writing to demonstrate critical thinking*

When students do this really well, what does it look like?

Reminder: quality outcomes

Have a clear and *Specific* purpose

Result in *Measureable/observable* products/behaviors

Focus on *Improvable* products/behaviors by students

Describe *Relevant* and meaningful learning

Are *Time-bound*

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Designing your assessments

- Three major tasks

  - Selecting direct and indirect measures

  - Collecting data with rubrics or other scoring systems

  - Summarizing your data for reporting

Selecting direct and indirect measures

Usually courses contain:

     - multiple outcomes for which you can choose

     - multiple measures to address each outcome

	Course Learning Outcomes				
	Critical thinking via writing	Outcome b	Outcome c	Outcome d	Outcome e
Paper	x		x	x	
Exam		x			x
Learning Journal	x			x	
Student Survey		x	x		
Other			x		x

Assessment data streams
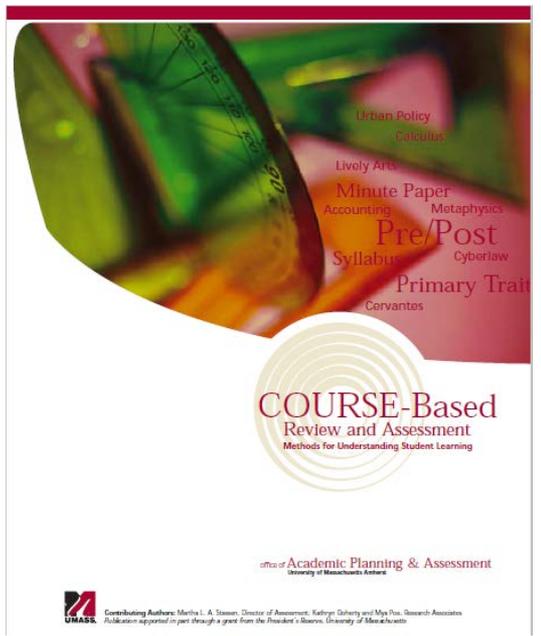
Choosing among direct and indirect measures of student learning

- Direct Evidence

  Measure student learning outcomes by direct observation of student performances or work products

- Indirect Evidence

  Measure opinions or thoughts about students' own knowledge, skills, attitudes, learning experiences, etc.

ABET

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Measuring your outcomes: common direct assessment techniques

- ❑ Written exams

- ❑ Homework assignments

- ❑ Oral presentations

- ❑ Projects

- ❑ Case studies

- ❑ Simulations/role play

- ❑ Portfolios

- ❑ Standardized tests

Measuring your outcomes: indirect assessment techniques

- ❑ Course-related self-confidence surveys

- ❑ Peer evaluations

- ❑ Midterm assessment

- ❑ Focus groups or interview with students

Activity: Think-Pair-Share (handout)

Choose one direct measure and one indirect measure for your course and describe how you might implement these assessments.

- **What tasks will students do that address your outcomes?**

- **What instructions might students receive?**

Collecting Data: Rubrics & Other Scoring Systems
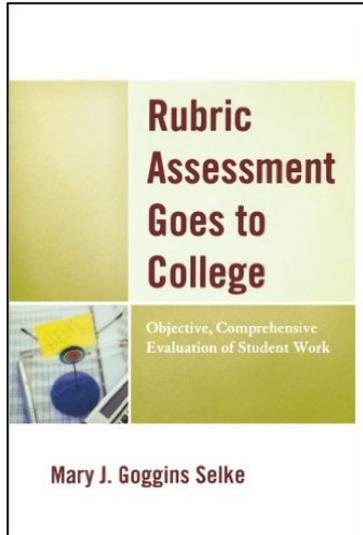
Selke, M. J. (2013). *Rubric assessment goes to college: Objective, comprehensive evaluation of student work.* Lanham, MD: Rowman & Littlefield Education.

Available for online reading via KSU's Library.
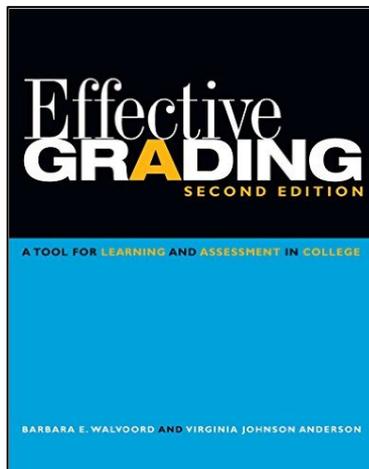
Walvoord, B. E., & Anderson, V. J. (2010). *Effective grading: A tool for learning and assessment in college (2nd ed.).* San Francisco, CA: Jossey-Bass.

Available for online reading via KSU's Library.

Advantages of an Effective Rubric (Selke, 2013)

- Communicates consistent, fair, & equitable expectations

- Reduces subjectivity in grading

- Helps students plan their work

- Provides developmental feedback to students

- Contributes to determining course grades

- Fosters student skills in self-assessment

Consciously Unskilled	**Consciously Skilled**
Unconsciously Unskilled	**Unconsciously Skilled**
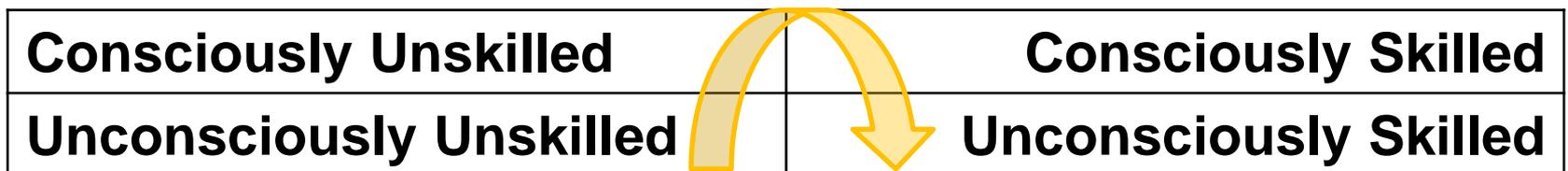
Holistic Rubric: EMRF (Stutzman & Race, 2004)

Does this work demonstrate understanding of the concept? AND
Does this work meet the expectations outlined in the assignment?

YES Is it complete and well communicated?		NO Is there evidence of partial understanding?	
Yes: E	**No: M**	**Yes: R**	**No: F**
Excellent example Meets or exceeds expectations Complete, clear communication Clear understanding Any error is trivial	**M**eets expectations Understanding is evident. Needs some revision or expansion, but written comments are enough. No additional teaching is needed	Needs **R**evision Partial understanding is evident, but significant gap(s) remain. Needs more work, teaching, communication Rc = Communication Rs = Significant error Ri = Incomplete	**F**ragmentary Clearly misunderstands Insubstantial attempt made

Stutzman, R. Y., & Race, K. H. (2004). EMRF: Everyday rubric grading. *The Mathematics Teacher*, *97*(1), pp. 34-39.

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Analytical Rubric for Disciplinary Writing: Burke et al. (2012)

Audience orientation	Assessment (Scale of 1 to 4)			
Thesis relevance	marginal	adequate	valuable	visionary
Thesis clarity	ambiguous	understandable	well stated	eloquent
Cohesiveness of perspective	absent	very fragmented	somewhat fragmented	artful
Discipline Knowledge	1	2	3	4
Selection of citations	random	basic	thoughtful	masterful
Depth of disciplinary knowledge	sketchy	fundamental	impressive	profound
Representation of knowledge	rote	sound	substantial	masterful
Analytical Quality/Critical Thinking	1	2	3	4
Logic of development	unconnected	uneven	well planned	seamless
Validity of evidence	peripheral	limited	acceptable	irrefutable
Application of knowledge	flawed	inconsistent	accurate	innovative

Burke, K., Ouellette, J., Miller, W., Leise, C., & Utschig, T. (2012). Measuring writing as a representation of disciplinary knowledge. *International Journal of Process Education*, 4(1), pp. 13-28. Retrieved from http://www.processeducation.org/ijpe/2012/writing.pdf

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Analytical Rubric for Disciplinary Writing: Burke et al. (2012)

Synthetic Quality	Assessment (Scale of 1 to 4)			
Interpretation of evidence	questionable	elementary	sensible	persuasive
Connection to thesis	disjointed	limited	convincing	compelling
Quality of insights/conclusions	simplistic	fundamental	mindful	powerful
Use of Language	1	2	3	4
Grammar/mechanics	poor	adequate	excellent	flawless
Use or structure (eg: paragraphs/sections)	random	simplistic	appropriate	masterful
Rhetorical eloquence	ineffective	interesting	persuasive	inspirational
Strengths (including why)	Narrative feedback			
Areas for improvement (including how)	Narrative feedback			
Insights (including significance)	Narrative feedback			
Share any additional comments/feedback	Narrative feedback			

Burke, K., Ouellette, J., Miller, W., Leise, C., & Utschig, T. (2012). Measuring writing as a representation of disciplinary knowledge. *International Journal of Process Education*, 4(1), pp. 13-28. Retrieved from http://www.processeducation.org/ijpe/2012/writing.pdf

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What grade should the following student receive?

Student Learning Outcome	Fragmentary 1	Needs Revision 2	Meets expectations 3	Exceeds expectations 4
SLO1			x	
SLO2			x	
SLO3			x	
SLO4			x	
SLO5			x	

Avoid simple percentages!
Maximum points = 20   3+3+3+3+3=15 15/20 = 75% = C? or B?
Selke (2013) recommends examining scoring patterns, not percentages
e.g., B = No Fragmentary; no more than 1 Needs revision
        A = At least three Exceeds; all others Meets
            (perhaps require Exceeds in SLO1 and SLO2)
Choose patterns that make sense for the assignment.

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Checklists and Gateway Criteria (Walvoord & Anderson, 2010)

Checklist: List the criteria and standards that students must meet

Walvoord's Checklist for Analysis of Newspaper Editorials

__I have chosen an editorial that takes a position on a debatable issue of public policy at the local, state or national level.

__I have attached a copy of the editorial to this paper.

__I have summarized the editorial's main point in a few sentences. The summary is less than 10 percent of the length of my analysis.

__I have NOT focused on whether I agree or disagree with the author's position; instead, I have analyzed the editorial.

__I have analyzed the editorial in the ways we have been learning in class, including:

  __ how the writer explains the background and sets the stage

  __ what audience the writer appears to be addressing

  __ how the writer states what she or he wants the audience to do or believe.

etc.

from Walvoord and Anderson (2010, p. 38)

Gateway Criteria

- Student work must first comply with specific requirements
  Page length
  Number of references
  Paper format
  Grammar/Punctuation

- Noncompliance results in penalties
  No grade assigned (Score of 0 or F)
  Required revision and resubmission

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Using a Spreadsheet for Rubrics or Checklists

Student 1	
94	MAXIMUM OF 100 POINTS: A=90-100 points; B=80-89 points
	You met the specs for an A. Good work. See the comments I included in your paper for suggestions on how to improve your writing for future courses.
40	GATEWAY CRITERIA: 40 points (10 points each)
	I will only provide additional feedback on your paper if you meet the following requirements.
10	You submitted a draft of your paper by the due date/time as indicated in the syllabus.
10	You submitted the revision of your paper by the due date/time as indicated in the syllabus.
10	Your revised paper adheres to the template provided.
10	You proofread your revised paper and corrected e...
18	ORGANIZATION of the paper: 20 points (2 poi...
2	You provided a title and your name on the first pag...
2	You provided a title that adequately describes the...
2	Your first paragraph prepares your reader for the s...
2	Your first paragraph prepares your reader for the c...
2	Your first paragraph includes appropriate citations...
2	You edited the heading for the summary to include...
2	You provided a meaningful heading at the start of...
2	You cited articles appropriately throughout your pa...
2	You organized your paper into meaningful paragra...
0	You edited the References list to include only the a...
	You should have removed the reference to McCrae and John because you didn't cite it.
20	SUMMARY of Allen and Laborde (2014) or Soto and Tackett (2015): 20 points (4 points each)
4	You cite the authors and refer to them as subjects of your sentences.
4	Your summary captures the authors' gist (main focus) of the article.
4	Your summary discusses the authors' main points that support the gist of the article.
4	Your summary does not misrepresent or misstate the contents of the article.
4	Your summary paraphrases the article, includes no quotations, and does not plagiarize.
16	COMPARISONS to other articles from this course: 20 points (2 points each).
	You make direct comparisons between your summary and one other article from this course.
2	You cite the author(s) of the other article and refer to them as subjects of your sentences.
2	You discuss the positions of the authors of both articles in your comparison.
2	You make one or more relevant comparisons between the two articles.

0	You provide accurate comparison(s); you are not misrepresenting either article.
	You misattribute the term "social clock" to Erikson; that's not one of his concepts.
0	Your comparison focuses on main point(s) of both articles and is not superficial.
	You could improve the comparison by focusing only on the stages in Erikson's theory that are most directly relevant to Soto and Tackett's article. Are there any similarities/differences in how Erikson discusses these stages compared to Soto and Tackett?
	You make direct comparisons between your summary and a second article from this course.
2	You cite the author(s) of the other article and refer to them as subjects of your sentences.
2	You discuss the positions of the authors of both articles in your comparison.
2	You make one or more relevant comparisons between the two articles.
2	You provide accurate comparison(s); you are not misrepresenting either article.
2	Your comparison focuses on main point(s) of both articles and is not superficial.

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Summarizing Data: The Trouble with Grades

3000-level course with the following learning outcomes for two papers:
Students will write papers that are well-organized.
Students will write accurate summaries of readings in their papers.
Students will compare readings highlighting similarities and differences.

Final grade distribution: 4 A's   9 B's   6 C's   0 D's   1 F
How well did students demonstrate the skills listed above?

Did students improve their skills from Paper 1 to Paper 2?

Grades on Papers	Paper 1	Paper 2
90 to 100%	2	4
80 to 89%	9	8
70 to 79%	6	6
60 to 69%	2	2
Below 60%	1	0

Grades alone are unlikely to be sufficiently diagnostic for assessment reporting

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Summarizing Data: Using Grading Criteria

3000-level course with the following learning outcomes for two papers:
Students will write papers that are well-organized.
Students will write accurate summaries of readings in their papers.
Students will compare readings highlighting similarities and differences.

GRADING CRITERIA:	Organization 10 points		Summary 25 points		Comparisons 15 points	
Points earned	Paper 1	Paper 2	Paper 1	Paper 2	Paper 1	Paper 2
90 to 100%	16	15	5	5	2	5
80 to 89%	3	4	6	8	4	7
70 to 79%	1	0	5	4	4	3
60 to 69%	0	1	3	3	3	2
Below 60%	0	0	1	0	7	3

Did students improve from Paper 1 to Paper 2 on any of the learning outcomes?

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Summarizing Data: Maintaining Data

Gradebook entries: Provide data on each criteria for each student. Summarize.

Points earned	Organization (10 points)	Summary (25 points)	Analysis (15 points)	Organization (10 points)	Summary (25 points)	Analysis (15 points)
Student 17	10	22	8	10	17	8
Student 18	7	5	7	9	18	10
Student 19	9	18	12	9	18	8
Student 20	9	17	6	6	17	9
	Summary data: Number of students who achieved a certain percentage of points					
A (90%)	16	5	2	15	5	5
B (80%)	3	6	4	4	8	7
C (70%)	1	5	4	0	4	3
D (60%)	0	3	3	1	3	2
Lower	0	1	7	0	0	3

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Other Sources of Student Data: Classroom Assessment
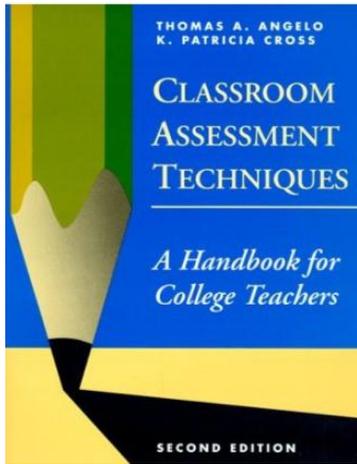
Classroom Assessment Techniques

(Angelo & Cross, 1993)

Online: http://eric.ed.gov/?id=ED317097

Field-tested Learning Assessment Guide

http://www.flaguide.org/
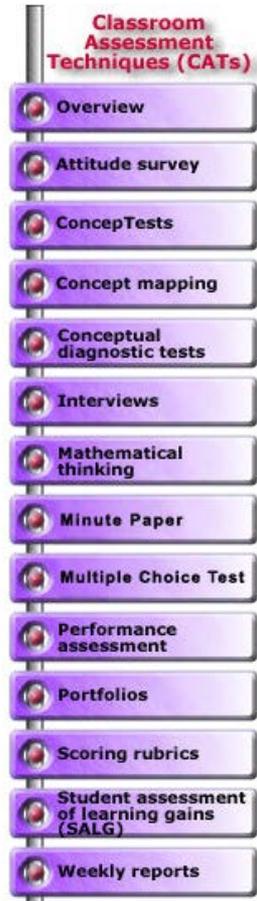
Examples:

Background Knowledge Probe: Start (and end) of course

 Ungraded 'test' of student knowledge (or perceptions)

 Compare pretest to posttest to assess student gains

Teacher-Designed Feedback Forms: Mid-semester

 Ask: What is helping you learn?
    What is hindering your learning?
    What suggestions do you have?

Classroom Assessment Techniques (CATs)

- Overview
- Attitude survey
- ConcepTests
- Concept mapping
- Conceptual diagnostic tests
- Interviews
- Mathematical thinking
- Minute Paper
- Multiple Choice Test
- Performance assessment
- Portfolios
- Scoring rubrics
- Student assessment of learning gains (SALG)
- Weekly reports

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Discussion

- Linking course, program, and college level assessment

- Creating a common base of understanding

Aligning perspectives on assessment

Stakeholder

- You and your program

- Office of Assessment

- KSU

Assessment purpose

- Improve quality of student learning

- Enable units to make data driven decisions

- Above plus maintain accreditation

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Discussion – assessment involves dialogue

Different Dialogues

Student   ↔   Instructor

Instructor   ↔   School/Dept

Instructor   ↔   University

University   ↔   Stakeholders

Assessment use:

Compare results intended with results achieved

Provide feedback for

- teaching effectiveness

- course and curriculum planning

- evidence of program accountability to stakeholders

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Closure Activity:

Please complete the CETL evaluation form

Thank you!

Contact information:
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