

Outcomes-Based Grading: A Direct Measure of Instructional Effectiveness

Karen McClendon

MTI College

Eileen Eckert

Instruction Redesign Consulting Group

*This presentation has been modified to incorporate information that was conveyed by the speakers. Please contact us with questions or comments.

Expected Learning Outcome

By the end of this presentation, you will be able to articulate the role of outcomes-based grading in the evaluation and documentation of instructional effectiveness.

Session Overview

- Current practices and rationale for change
- Definition, examples, and features
- Implementation
- Implications for institutional research and accountability

Current Practices

- Point-based grading systems
- Assumption that the assignments and assessments facilitate and demonstrate the students' achievement of the outcomes
- Relationship between achievement of outcomes and final grade is implied and indirect.
- In some cases, there is no relationship between SLOs and grades.

Rationale for Outcomes-based Grading

- Relationship between SLOs and final grade is clear and direct: when a student passes a course, it means s/he consistently and competently demonstrates expected student learning outcomes.
- Increased transparency and accountability as institutions' course completion rates directly reflect achievement of SLOs.

Definition of Outcomes-based Grading

- The final grade is based on the level of ability consistently demonstrated* by the student to any observer** of the SLOs by the end of the course.
- * “Consistently demonstrates” means multiple data points for triangulation of data.
- ** “Any observer” means that others than the instructor would come to the same conclusion.

Outcomes-based Grading...

- Requires that faculty communicate expected learning outcomes to students, clearly and repeatedly, *and teach to those outcomes*.
- Requires that faculty communicate to students the indicators for each level of performance on each outcome.
- Allows students to know the indicators of their learning through assessment rubrics such as the ones on the next slides.

Assessment Rubric Example 1

Applied Communications SLO 2.1: Devise appropriate goals and strategies to develop a basic business plan and to accomplish specific goals.

(This is an adaptation of a college-wide SLO regarding proficiency as a learner, detailed in the next slide.)

Level	Minimal (0-1 points)	Developing (2-3 points)	Proficient (4-5 points)
Devise appropriate goals and strategies to develop a basic business plan and to accomplish specific goals.	Student demonstrates minimal ability to devise adequate goals and strategies for developing a basic business plan. Student's ability and/or desire to implement strategies is minimal.	Student demonstrates ability to devise adequate goals and strategies for developing a basic business plan. Student's ability to implement strategies is developing.	Student demonstrates superior ability to devise goals and strategies for developing a basic business plan. Student consistently demonstrates ability to effectively implement strategies and accomplish specific goals.

Assessment Rubric Example 2

SLO: Demonstrate proficiency in using learning strategies necessary to keep current in the profession and become a lifelong learner

Indicators	Levels Minimal	Developing	Proficient
Identify learning needs	Does not identify learning needs and gaps in knowledge and skills; needs considerable guidance about what to learn.	Can identify some learning needs and gaps in knowledge and skills, but still needs guidance about what to learn. May wait to be told what to learn despite recognizing learning needs.	Can identify gaps in knowledge and skills; knows what s/he needs to learn.
Identify available resources	Is unfamiliar with resources available, including courses, materials, etc. Needs to be told where to get info and help.	Knows and can independently use some resources. Needs guidance for some resources and may need coaching in how to get help from others.	Usually knows where to find information and resources, who/how to ask for help.
Make and implement a plan of action to address learning needs	Once learning needs and resources are identified, needs considerable guidance to use them effectively in order to learn.	Once learning needs and resources are identified, can use them to address learning needs. May need guidance to address needs more efficiently or effectively.	Once learning needs and resources are identified, can independently make and implement a plan to address needs.
Know and use appropriate learning strategies (i.e., self-regulate learning)	Is not aware or able to use appropriate learning and metacognitive strategies (i.e., study strategies, time management, test-taking skills, management of motivation, etc.).	Knows and can use some strategies, but needs some guidance to choose and use most appropriate and effective strategies.	Consistently chooses appropriate strategies and uses them effectively.
Evaluate the results of a learning project	Needs considerable guidance to know whether learning has been accomplished (i.e., may not know whether s/he has learned material until s/he gets a test score or grade).	Has a sense of when learning has been accomplished. May need guidance in evaluating specifics.	Can independently evaluate overall quality and specific strengths and weaknesses, of learning and of new knowledge and skills.

Applied Organizational Communications

Student Learning Outcomes

In every activity and interaction, students will be expected to practice the following learning outcomes. Upon successful completion of this class, students are expected to do the following:

1. Demonstrate effective verbal and written communication skills, as follows:
 - 1.1 Write a clear, effective business report and compose clear, effective letters that meet specific business objectives.
 - 1.2 Demonstrate effective interpersonal skills (listening, speaking, questioning, and sharing feedback) with diverse audiences in a variety of business settings.
 - 1.3 Create, organize, and deliver effective oral presentations.
2. Utilize critical thinking and problem-solving skills as follows:
 - 2.1 Devise appropriate goals and strategies to develop and implement a basic business plan.
 - 2.2 Assess organizational communication and devise strategies for improvement.
 - 2.3 Devise strategies for group collaboration and employ decision-making and conflict resolution strategies to accomplish team goals.

Applied Organizational Communications

Student Learning Outcomes continue...

3. Conduct primary and secondary research regarding the effects of globalization and organizational communication strategies.
4. Use technology to enhance learning, performance, and organizational communication.
5. Demonstrate responsibility and accountability for individual and team work products.
6. Demonstrate professionalism at levels at or above college and workplace standards.

In the next slide, look for the relationship between these outcomes and the final grade...

Traditional Grading Scale Communications Course

Requirement	Points
Attendance and participation	50
Homework	100
Exams (4 at 100 points)	400
Presentation	100
Final Exam	200
TOTAL	850

Applied Organizational Communications

Q: Using the traditional grading scale, what is the relationship between student learning outcomes and grades?

A: There is no explicit relationship between student learning outcomes and grades.

Outcomes-based Grading Method for Communications Course

For each outcome or component, student achievement can be nonexistent (0 pts.), minimal (1 pt.), developing (2 pts.), adequate (3 pts.), good (4 pts.), and superior (5 pts.), using level indicators described in assessment rubrics.

Outcomes-based Grading Scale for Communications Course

Points	Grade
44-50	A (superior or good on all outcomes)
37-43	B (good or at least adequate on all outcomes)
30-36	C (adequate all outcomes)
15-29	D (developing)
0-14	F (non-existent or minimal)

Features of Outcomes-based Grading in Communications Course

- Final grade tied to the level of achievement the student documents for each outcome;
- Student has responsibility to provide evidence of achievement and to monitor his/her performance;
- Grading criteria are very clear; and
- Passing grade requires basic competence in every expected learning outcome.

Developmental Writing: Grammar in Context

Student Learning Outcomes

- 1.0 Demonstrate sentence-level skills in the following areas:**
 - 1.1 Editing for punctuation, subject/verb agreement, pronoun reference and case.**
 - 1.2 Composing and using sentences of three types (simple, compound, and complex) and avoiding common sentence-level errors (fragments and run-ons).**
 - 1.3 Using correct words/meanings.**
- 2.0 Demonstrate ability to use basic critical thinking and sentence-level skills to consistently construct paragraphs that are**
 - 2.1 Focused**
 - 2.2 Coherent**
 - 2.3 Well supported**
- 3.0 Demonstrate responsibility and accountability for individual written products and group work by preparing for and participating in group critique workshops.**
- 4.0 Demonstrate professionalism at levels at or above college and workplace standards.**

Traditional Grading Scale

Developmental Writing Course

Criteria and Points	Points	Percentage	Grade
Homework 10 @ 20 pts. each	200 pts.	33.3%	540 and above = A
Essays 2 @ 50 pts. each	100 pts.	16.7%	480-539= B
Quizzes 2 @ 50 pts. each	100 pts.	16.7%	420-479= C
Final 1 @ 200 pts.	200 pts.	33.3%	360-419= D
	600 pts.	100%	Below 360 F

Developmental Writing: Grammar in Context

Using a traditional grading scale, there is no direct relationship between SLOs and grades.

Outcomes-based Method of Grading Developmental Writing Course

For each outcome or component, student achievement can be nonexistent (0 pts.), minimal (1 pt.), developing (2 pts.), adequate (3 pts.), good (4 pts.), and superior (5 pts.).

Outcomes-based Grading Scale Developmental Writing Course

Points	Grade
36-40	A (superior or good on all outcomes)
30-35	B (good or at least adequate on all outcomes)
24-29	C (at least adequate on all outcomes)
14-23	D (developing)
Below 14	F (non-existent or minimal on all outcomes)

Features of Outcomes-based Grading Developmental Writing Course

- Final grade tied to the level of achievement for each student learning outcome.
- Grading criteria are very clear.
- Passing grade requires basic competence in writing.

Fundamentals of Accounting

Student Learning Outcomes

Upon successful completion of this class, students will be able to:

- Journalize accounting transactions to a general journal;
- Journalize accounting transactions to special journals;
- Post to the general ledger;
- Record to subsidiary ledgers;
- Complete a ten-column worksheet;
- Prepare financial statements;
- Complete a bank reconciliation;
- Demonstrate professionalism at or above college and workplace standards.

Traditional Grading Scale

Fundamentals of Accounting Course

Requirement	Points	Percentage	Grading Scale
Homework	35	7.6%	413-459=90% A
Exams	400	87.1%	367-412=80% B
Attendance	24	5.3%	321-366=70% C
Total	459	100%	275-320=60% D
			Below 75=below 60% F

Outcomes-based Grading Scale

Fundamentals of Accounting Course

Outcome	Assessment	Percent	Points
General Journal	HW: 2A5, 3A3, 6A2, 9A4, 10A3 Exam: 2, 3, & 4	30%	138 pts
Specific Journal	HW: 9A4, 10A3 Exam: 4	10%	46 pts
Posting	HW: 3A3, 9A4, 10A3, Exam: 2	20%	92 pts
Subsidiary Journal	HW: 9A4, 10A3 Exam: 4	5%	23 pts
Ten-column worksheet	HW: 4A3 Exam: 3	15%	68 pts
Financial statements	HW: 1A5, 4A3 Exam:1	10%	46 pts
Bank reconciliation	Homework: 6A1, 6A2 Exam: 4	5%	23 pts
Professionalism	Assessment Rubric	5%	23 pts

Outcomes-based Grading Scale Fundamentals of Accounting Course

POINTS	GRADE
413 – 459 (90 - 100%)	A
367 – 412 (80 - 89%)	B
321 – 366 (70 - 79%)	C
275 – 320 (60 - 69%)	D
Below 275 (0 – 59%)	F

In order to successfully complete this class, the student is required to achieve a score of at least 321 from a possible 459 points.

Features of Outcomes-based Grading Fundamentals of Accounting Course

- Explicit links between outcomes, the assignments that promote and demonstrate them, and the assessments that are used to measure performance.
- Assessment of a “soft skill,” professionalism, using a college-wide assessment rubric.
- A threshold for basic competence required to pass the course, though no minimum proficiency for each SLO.

Mathematics in Business

Outcomes-based Grading Scale

SLO	Assessment	Points
Apply computational and problem-solving skills to word problems.	Exam 1, Exam 2, Exam 4, Final Exam, Quizzes 1-7	115
Express numbers in numeric and written form.	Exam 1	25
Calculate the mean, median, and mode for a set of numbers.	Exam 1, Final Exam	65
Perform addition, subtraction, multiplication, and division with whole numbers, decimals, fractions, integers, equations, and percents.	Exam 1, Exam 2, Exam 3, Exam 4, Final Exam, Quizzes 1-7	140
Complete conversions to find an unknown value in algebraic formulas and word problems.	Exam 3, Final Exam, Quizzes 4 & 5	65
Make conversions between decimals, fractions, and percentages.	Exam 4, Final Exam, Quizzes 6 & 7	65
Demonstrate professionalism consistent with college expectations for all students.	Assessment Rubric	50

Mathematics in Business

Relationship between Total Points and Grade

Total Points	Grade
630-700	A
560-629	B
490-559	C
420-489	D
Below 420	F
Students must achieve a “C” grade or better on the final exam in order to pass this class.	

Implementing Outcomes-based Grading

Outcomes-based grading occurs in the context of outcomes-based curriculum.

Outcomes-based Curriculum Development Process

- Define student learning outcomes.
- List the indicators for each outcome.
- Define levels of progress and performance, and describe each level of performance for each indicator.
- For each student learning outcome, list (learning/instructional) activities that contribute to its development.

Continued on next slide...

Outcomes-based Curriculum Development Process

Continued from previous slide...

- Create assignments and learning activities that incorporate instruction and practice for development of all the course outcomes.
- Describe the evidence or documentation (assessments) that will be used to demonstrate the level of performance for each outcome by the end of the course.
- Define and explain the relationship between achievement of outcomes and final grade.
- Implement, monitor, evaluate, revise!

Designing the Grading System

- Determine weight of each outcome.
- Determine relationship between points and performance levels.
- Determine cutoff for a passing grade, points needed for higher grades.

Barriers to Implementing Outcomes-based Grading

- Faculty mental models that conflict with outcomes-based grading.
- Contentment with the status quo.
- Lack of time, resources for development, and collaboration.
- Lack of tolerance for the learning curve.

Supports for Implementation

- A mid- to long-term view of the process.
- Recognition of the importance of monitoring, evaluation, revision.
- Motivation.
- Commitment on the part of the administration.
- Time for collaboration.
- Mentoring, coaching, and guidance.
- Access to resources, including professional development.

Benefits of Adopting Outcomes-based Grading

- Focuses attention on SLOs.
- Leads to more positive learning and evaluation experiences as students know exactly where they stand, and why.
- Increases the validity of grades as a measure of institutional effectiveness for accountability and accreditation.
- Allows researchers to aggregate data on grades to document achievement of SLOs by outcome, course, department, group of students, etc.

Building Quality

- Colleges build quality through documentation of student performance (e.g., portfolios), using multiple data points, norming sessions to insure inter-rater reliability, audit trails (i.e. documentation available to observers).
- All of these activities are already part of high-quality program review and self-study for accreditation.

Implications for Institutional Research

Outcomes-based grading

- Provides consistency across students, sections, and quarters/semesters.
- Puts grading back on the “gold standard”—a passing grade means consistent satisfactory performance of outcomes.
- Makes data on course completion more meaningful and gives specificity to that meaning.
- Provides the basis for researchers to examine and draw conclusions about instructional effectiveness.
- Directs instructional improvement efforts.

Implications for Accountability

- Outcomes-based grading closes the accountability loop—defining, teaching to, assessing, and grading on the achievement of student learning outcomes.
- Colleges that adopt outcomes-based grading are directly and clearly accountable for the outcomes of student learning.
- Accreditation requires that credit be awarded on the basis of achievement of student learning outcomes.

Conclusion

We consider outcomes-based grading an integral part of instructional improvement and better student learning outcomes.

For more detail and examples, contact us:

karenmcclendon@yahoo.com

eileen@instructionredesign.com

Or visit:

<http://instructionredesign.com>