

# Outcomes-Based Grading: An Efficient Assessment Approach

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# Participants' Learning Outcomes

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- ❖ Grading students' works can be intentionally developed as a complementary process for assessing student learning;
- ❖ Grading can be used as an integral part of the scholarship of teaching and learning;
- ❖ Outcomes-based grading is more meaningful for formative and summative assessment to prompt improvement of student learning and success.

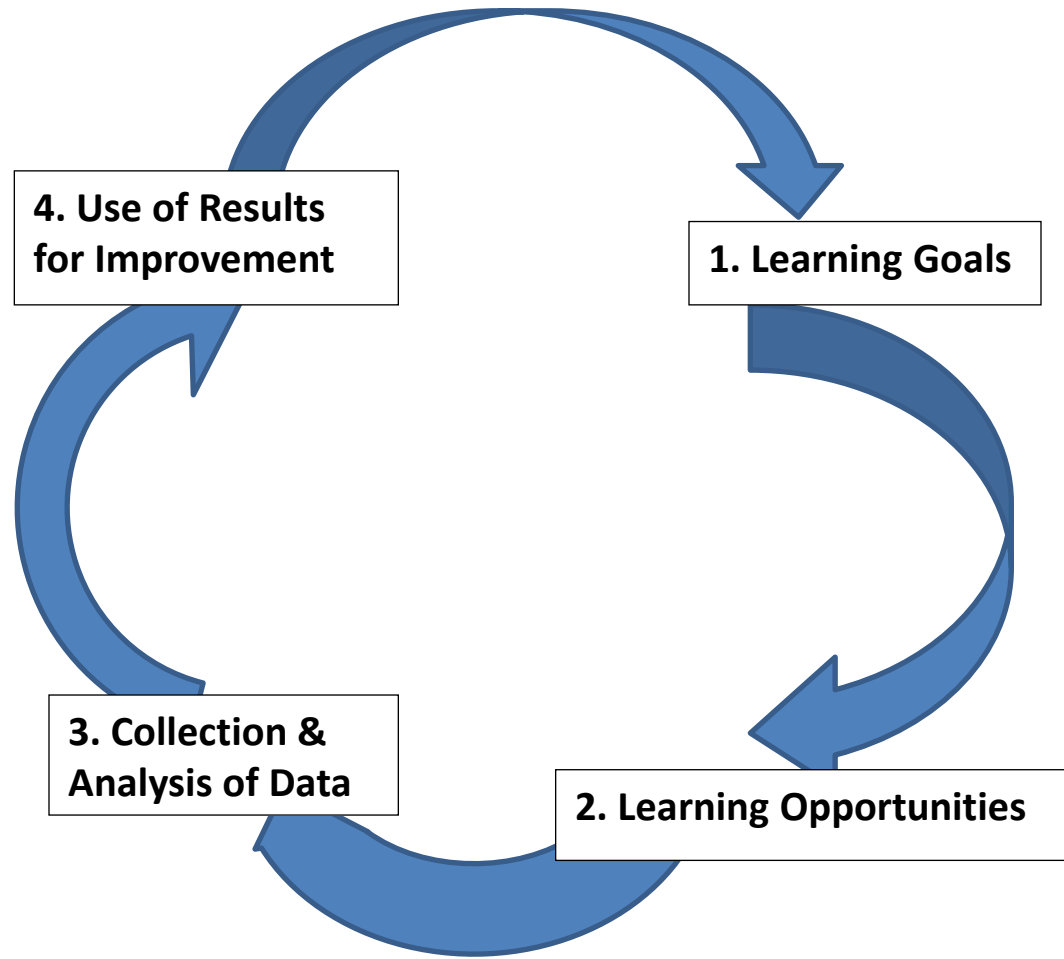
# Background

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- ❖ Common problems pertaining to assessment of student learning.
- ❖ Perception of an additional burden on faculty.
- ❖ Perceptual shift to what a meaningful assessment means to Teaching & Learning.
- ❖ Killing two birds with one stone: grading and assessment.

# Teaching-Learning-Assessment Cycle

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# Purpose

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- ❖ To demonstrate how an alignment of student learning outcomes with grading can be used for assessment and for generating student grades.
- ❖ To show, by example, how outcomes-based grading can be used to demonstrate students' proficiency of the knowledge and skills directly taught, as well as for continuous improvement.

# Roles of Grades in Learning

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- Communication
- Motivation
- Evaluation
- Metacognition
- Diagnostic
- Organization

Abridged from B.E. Walvoord et al. Effective Grading, 2<sup>nd</sup> Ed. 2010.

# Traditional Course Grades

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- ❖ Traditional course grades include non-academic attainment/attributes that are not part of the expected learning outcomes:
  - Test scores
  - Term paper
  - Homework
  - Attendance
  - Class participation
  - Punctuality
  - Effort
- ❖ Traditional course grades may not necessarily measure an attainment of what students are expected to know or are able to do.

# Course Letter Grades in a Course

Course Letter Grades	Fall 2014	
	No. of Students	Percent
A	6	9
B	13	21
C	25	40
D	14	22
F	5	8
<b>Total</b>	<b>63</b>	<b>100</b>

Not revealing what students know or what to improve upon!



# Traditional Grading Method

Student	Exam (100 pts.)	Term Paper (100 pts.)	Participation/ Attendance (100 pts.)	Total (300 pts.)	Course Grade
1	70	90	100	260	B
2	95	65	100	260	B
3	90	90	80	260	B
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# Outcomes-Based Grading: A Case Analysis

# Articulating Learning Outcomes

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“It is no longer beyond the capacity of a college or university to articulate expectations for learning, to document student progress toward these expectations, and to use the resulting evidence to improve student success.”

NILOA (2016, May). Higher education quality: Why documenting learning matters. Urbana, IL: University of Illinois and Indiana University, Author. P.7.

# The College of Business & Economics (COBE) at Radford University

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- ❖ Accredited by the Association to Advance Collegiate Schools of Business (AACSB).
- ❖ The AACSB Business and Accounting Accreditation Standards are often revised to reflect the changing needs of business and stakeholders.

# AACSB International—Standard 9

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**Curriculum content** is appropriate to the general expectations for the degree program type and learning goals.

- ❖ **Curriculum content** refers to theories, ideas, concepts, skills, knowledge, etc., that make up a degree program.
- ❖ **Learning goals** describe the knowledge and skills students should develop in a program and set expectations for what students should do with the knowledge and skills after completing a program.

[AACSB International: <http://www.aacsb.edu/en/accreditation/standards/2013-business/>]

# General Skills Areas

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Eight general skill areas are identified in the Standard. This example only considers two of them.

- ❖ The two general skill areas incorporated into the course exposed students to learning experiences in:
  - **analytical thinking** (to analyze and frame problems) and
  - **reflective thinking** (to understand oneself in the context of society).

# Method

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- ❖ A compulsory course for all accounting majors at RU is used in this analysis.
- ❖ Two sections of the course are offered by the same professor each semester.

# Method

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- ❖ Having identified the two student learning outcomes for the course, a carefully planned step was taken.
- ❖ That is, aligning test questions to the student learning outcomes for the course.
- ❖ Three tests are given each semester with questions related to each skill area embedded.



# Study Data

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- ❖ 76 students enrolled in two sections of the selected course in fall 2014 semester, and
- ❖ 51 students enrolled in the same course in spring 2015 semester.

# Performance Scores in Reflective and Analytical Skills, Fall 2014

	Ref 1 (n=76)	Ref2 (n=67)	Ref3 (n=64)		Analy1 (n=76)	Analy2 (n=67)	Analy3 (n=64)
<b>Highest Score</b>	91	100	91		86	100	100
<b>Lowest Score</b>	9	14	9		14	18	36
<b>Avg. Score</b>	49	53	55		39	52	64
<b>Avg. Range</b>	--	4	6		--	13	25
<b>Student Attrition Rates</b>	<b>In btx.</b>	12%	5%				
	<b>Overall</b>	--	16%				

# Performance Scores in Reflective and Analytical Skills, Spring 2015

	Ref 1 (n=51)	Ref2 (n=47)	Ref3 (n=40)		Analy1 (n=51)	Analy2 (n=47)	Analy3 (n=40)
<b>Highest Score</b>	82	93	91		86	100	100
<b>Lowest Score</b>	18	21	18		7	9	21
<b>Avg. Score</b>	47	49	56		41	47	63
<b>Avg. Range</b>	--	2	9		--	6	22
<b>Students' Attrition Rates</b>	<b>In btx.</b>	8%	15%				
	<b>Overall</b>	--	22%				

# Calibrating Learning Proficiency

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## ❖ Above Expected Level:

❖ **80 percent or higher score**

## ❖ At Expected Level :

❖ **70-79 percent score**

## ❖ Below Expected Level :

❖ **69 or below score**

**TARGET: 70% of the students will score at or above the expected level.**

# Results of Reflective and Analytical Skills in Fall 2014 & Spring 2015

	Ref 1 (n=76)	Ref2 (n=67)	Ref3 (n=64)		Analy1 (n=76)	Analy2 (n=67)	Analy3 (n=64)
<b>Fall 2014</b>							
<b>Above Expected Level</b>	8%	9%	13%		1%	13%	19%
<b>At Expected Level</b>	12%	18%	25%		11%	16%	33%
<b>Below Expected Level</b>	80%	73%	63%		87%	70%	48%
<b>Spring 2015</b>							
	Ref 1 (n=51)	Ref2 (n=47)	Ref3 (n=40)		Analy1 (n=51)	Analy2 (n=47)	Analy3 (n=40)
<b>Above Expected Level</b>	6%	4%	17%		2%	9%	13%
<b>At Expected Level</b>	16%	21%	23%		16%	19%	35%
<b>Below Expected Level</b>	78%	75%	60%		82%	72%	52%

# Results of Continuous Improvement in Reflective & Analytical Skills

Semester	Skill Development Area	Total No. of Course Completers	No. Showing Continuous Improvement	Percent
Fall 2014	Reflective	63	36	57%
	Analytical	63	55	87%
Spring 2015	Reflective	40	23	58%
	Analytical	40	31	78%

Lesson learned: **Need to adjust instruction in the reflective skill**

# About the Reflection Skill

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“*Reflection,*’ as George Kuh has said,  
*‘is not a natural human act’*  
People have to be taught to do it,  
stimulated into wanting to do it,  
motivated to take it beyond the narrow  
area of their expertise.”

Margaret A. Miller  
Change Magazine, March-April, 2014  
Editorial: Transferable Thoughtfulness

# Concluding Remarks

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- ❖ The knowledge gap among the students enrolled in the course during the two semesters investigated was a mile apart!
- ❖ Students' performance in reflective skill lags behind that of analytical skill.
- ❖ More learning opportunities in reflective thinking skill may be warranted.



# Concluding Remarks

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- ❖ With the high overall rate of attrition in the course and the mediocre performance of many students, a prerequisite course may be in order to enhance students' performance and expectations.
- ❖ Further analysis may prompt a redesign of the course/assignments/instruction to foster increased student learning and mastery of the expected knowledge and skills.

# Lessons Learned

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- ❖ A careful matching of learning outcomes to how courses will be evaluated can make assessment results useful and meaningful.
- ❖ Meaningful assessment can improve teaching and learning.
- ❖ Use of assessment results can spur curricular and pedagogical improvements and, thereby, enhance student learning.

# Questions???

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