BLUEPRINTS AND RUBRICS

Techniques for Strategic Analysis of Student Performance

As faculty members, we grade student work.

Tests

Quizzes

Labs

Assignments

Projects

Clinical Performance

Presentations

But it's not likely that we and our students are learning everything that we should from the results.

We need to study the patterns…

Faculty and students need more than grades.

◦ **Both faculty and students want to be able to discern patterns of strength and weakness and consider the implications.**

◦ **As faculty we want to adapt our subsequent instructional practices to promptly remediate weak areas.**

◦ **Teachers want to look at student outcomes across sections, courses, and semesters so that we can more intentionally strengthen our curriculum – our program of study – over time.**

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Terminology

Goals
… or Learning Goals, or Student Learning Goals

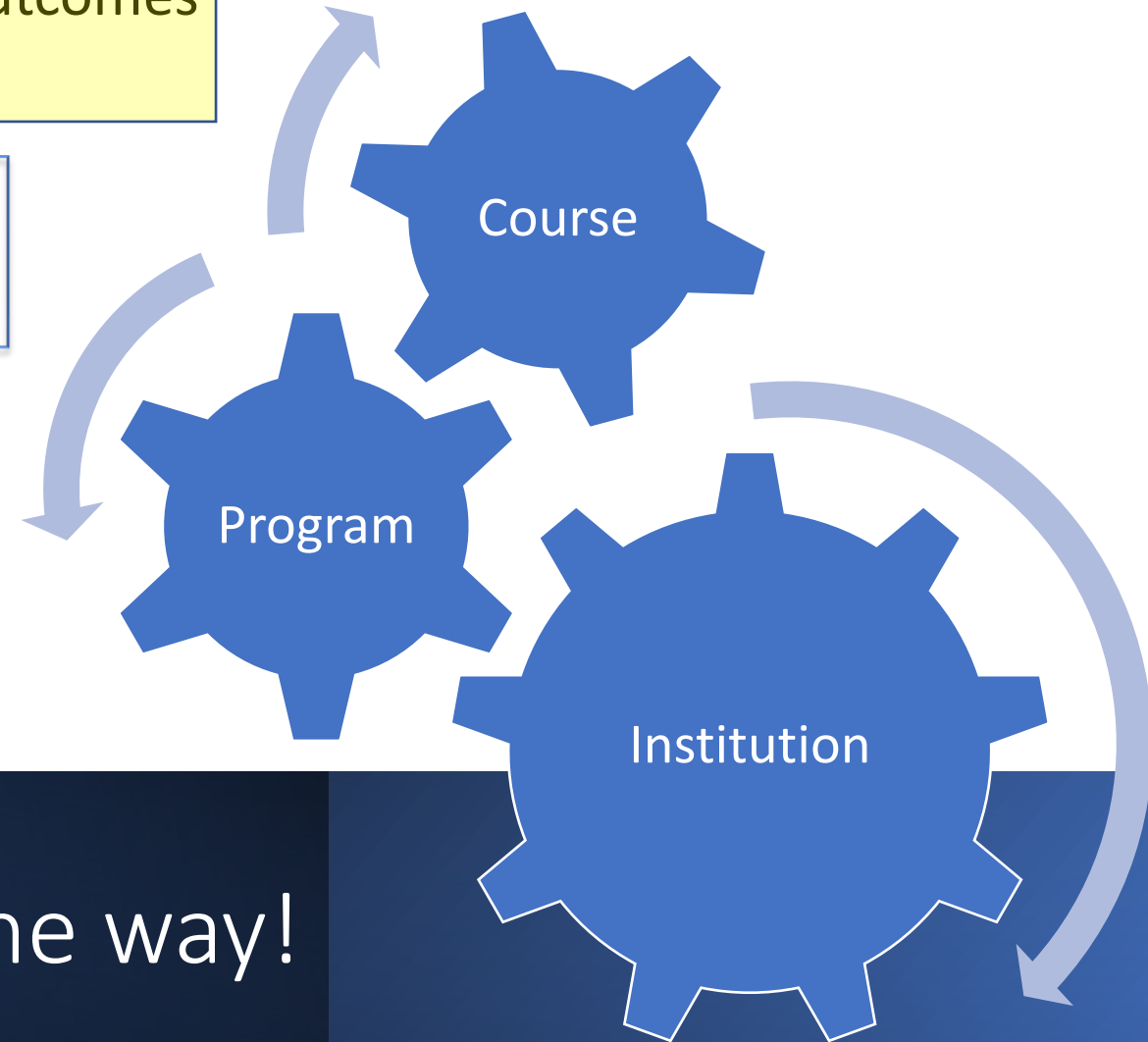**Outcomes**
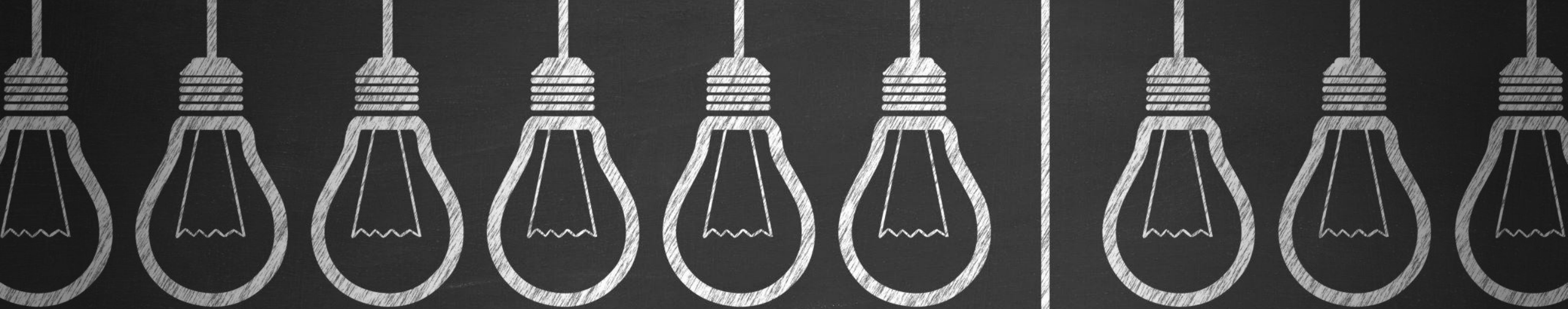… or Learning Outcomes, or Student Learning Outcomes (SLO's)

Objectives

ABFSE uses the terminology "**Program Learning Outcomes**" or PLO's

Course

Program

Institution

Don't let the terms get in the way!

STRATEGIES TO STRENGTHEN STUDENT ASSESSMENT

Technique #1

1. Unbundle Complicated Concepts

In both teaching and assessing.

We may be accustomed to doing this while teaching.

We know to "break things down" as we explain concepts to make them easier to understand.

We can "break things down" or "unbundle" them in our **tests or assignments**, as well. Then, when we study the pattern of errors we can better understand where the problem or weakness really exists.

We can ask questions about underlying skills or knowledge before we ask the questions about the target skill.

Unbundling a Concept in Testing

1. What is the least common denominator (LCD) of 2/3 and 3/4?

2. Using the LCD, rewrite the fractions 2/3 and 3/4.

3. Express your answer as a mixed number: 2/3 + 3/4 = ?
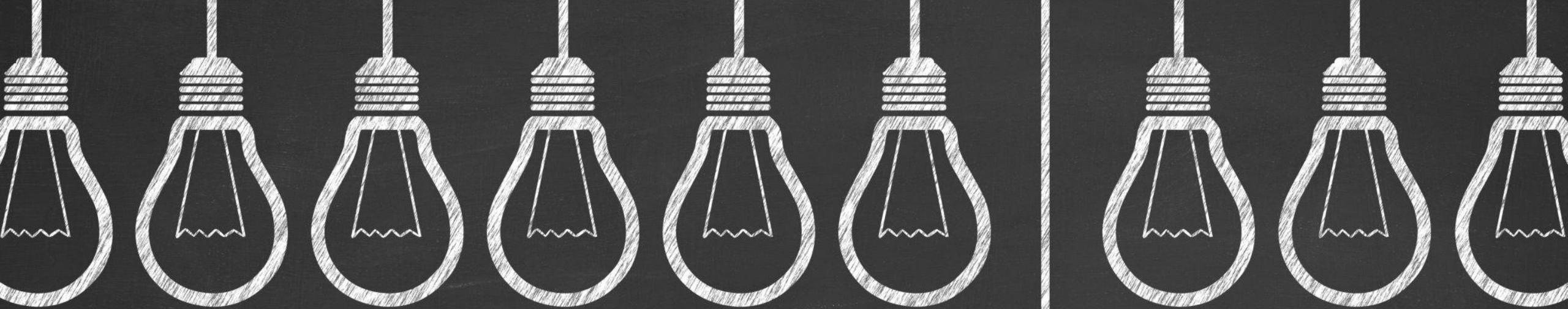
4. 3/4 – 2/3 = ?

Why unbundle concepts when assessing students?

Students experience getting "some questions" right. They may not feel as "blown away" by a test or assessment.

You are helping the students set a cognitive context, or schema.

Teachers can study the results to determine where, specifically, the misunderstandings are occurring and remediate accordingly.

STRATEGIES TO STRENGTHEN STUDENT ASSESSMENT

Technique #2

2. Develop "Blueprints" for key tests.

Think of a blueprint as a careful PLAN for the test.

- Choose a test that measures a critical unit of study.

- What percentage of that test is to be devoted to each of the specific learning outcomes or competencies?

- Within each of those sections, how do you want to "unbundle" the concepts?

- Within each of those sections, what is the appropriate level of difficulty?
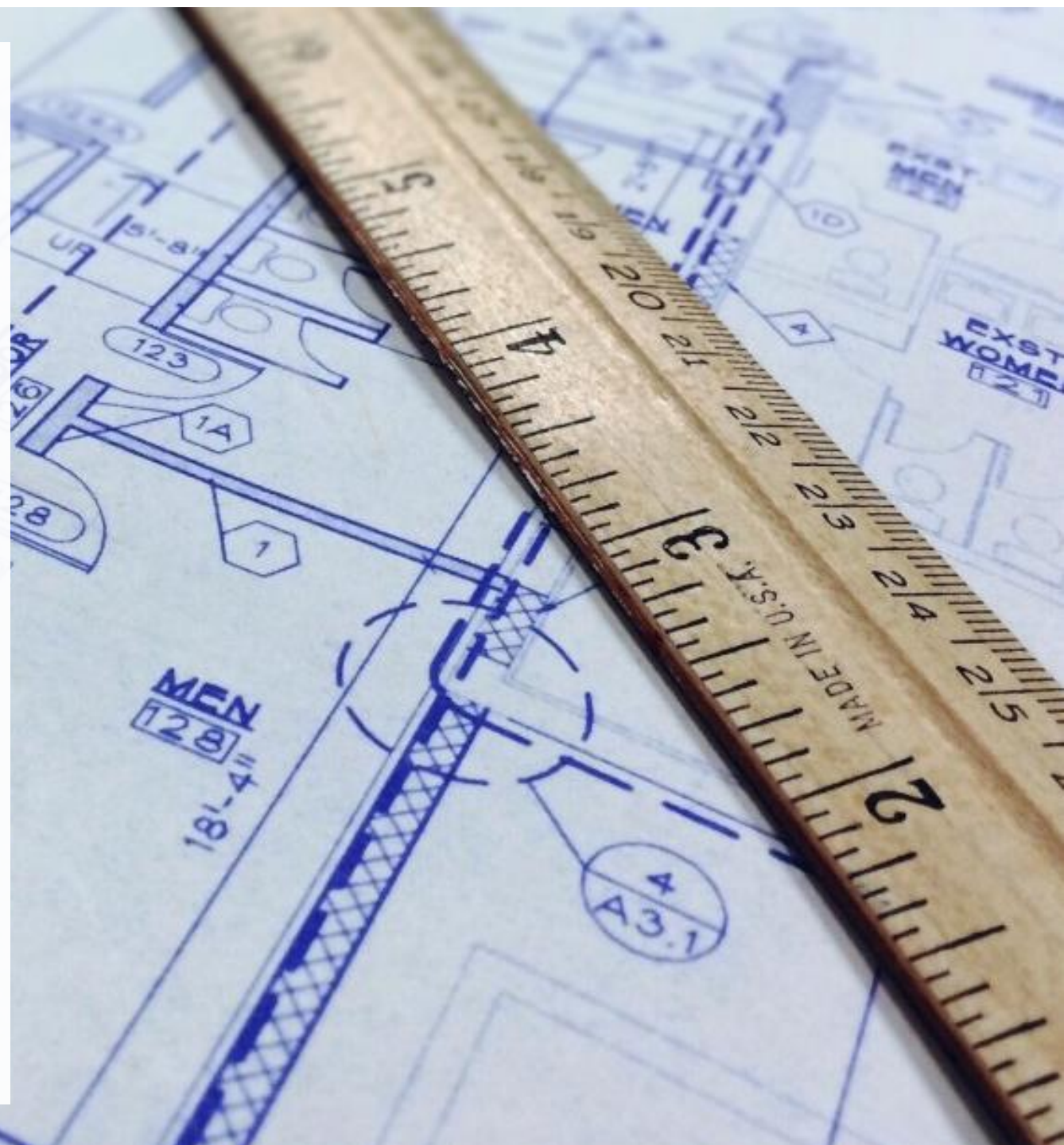
It's best to collaborate when planning and writing key tests.

The Blueprint or PLAN
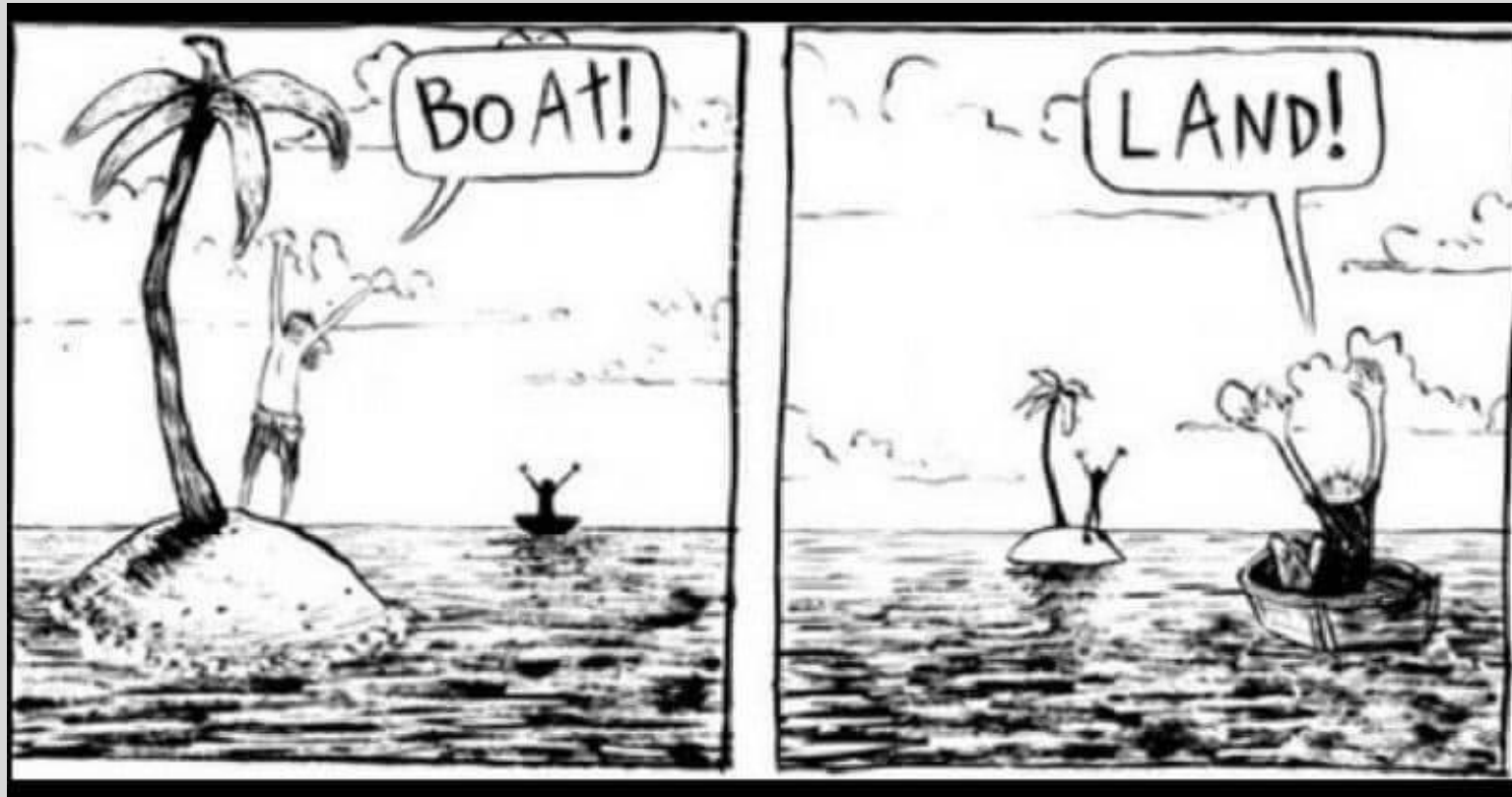
40% of the test will assess ethics which aligns with course SLO 1 which aligns to program learning outcome 2 - ethics. To be assessed at two levels of difficulty.

50% of the test will assess business management which aligns with course SLO 5 which aligns with program learning outcome 9 – business mgmt.

10% of the test will assess public health, which aligns with course SLO 3 and Program SLO 4.

Concepts in both ethics and business mgmt. will be unbundled.

Item #	Competency	Course-Level SLO	Program-Level SLO
1	Ethics Level 1 – unbundled	1	2
2	Ethics Level 1 – Scenario question	1	2
3	Ethics Level 2– unbundled	1	2
4	Ethics Level 2 – Scenario question	1	2
5	Business Mgmt – Unbundled	5	9
6	Business Mgmt - Unbundled	5	9
7	Business Mgmt	5	9
8	Business Mgmt	5	9
9	Business Mgmt	5	9
10	Public Health	3	4

Item #	Competency	Course-Level SLO	Program-Level SLO	Test Question
1	Ethics Level 1 – unbundled	1	2	Sollicitudin nibh sit amet commodo nulla facilisi.
2	Ethics Level 1 – Scenario question	1	2	Sollicitudin nibh sit amet commodo nulla facilisi.
3	Ethics Level 2– unbundled	1	2	Sollicitudin nibh sit amet commodo nulla faclisi.
4	Ethics Level 2 – Scenario question	1	2	Sollicitudin nibh sit amet commodo nulla facilisi.
5	Business Mgmt – Unbundled	5	9	Sollicitudin nibh sit amet commodo nulla facilisi.
6	Business Mgmt - Unbundled	5	9	Sollicitudin nibh sit amet commodo nulla facilisi.
7	Business Mgmt	5	9	Sollicitudin nibh sit amet commodo nulla facilisi.
8	Business Mgmt	5	9	Sollicitudin nibh sit amet commodo nulla facilisi.
9	Business Mgmt	5	9	Sollicitudin nibh sit amet commodo nulla facilisi.
10	Public Health	3	4	Sollicitudin nibh sit amet commodo nulla facilisi.

Item #	Competency	Course-Level SLO	Program-Level SLO	Test Question	Aggregated Student Outcomes
1	Ethics Level 1 – unbundled	1	2	Sollicitudin nibh sit amet commodo nulla facilisi.	8/10
2	Ethics Level 1 – Scenario question	1	2	Sollicitudin nibh sit amet commodo nulla facilisi.	6/10
3	Ethics Level 2– unbundled	1	2	Sollicitudin nibh sit amet commodo nulla faclisi.	7/10
4	Ethics Level 2 – Scenario question	1	2	Sollicitudin nibh sit amet commodo nulla facilisi.	5/10
5	Business Mgmt – Unbundled	5	9	Sollicitudin nibh sit amet commodo nulla facilisi.	9/10
6	Business Mgmt - Unbundled	5	9	Sollicitudin nibh sit amet commodo nulla facilisi.	8/10
7	Business Mgmt	5	9	Sollicitudin nibh sit amet commodo nulla facilisi.	8/10
8	Business Mgmt	5	9	Sollicitudin nibh sit amet commodo nulla facilisi.	7/10
9	Business Mgmt	5	9	Sollicitudin nibh sit amet commodo nulla facilisi.	8/10
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Item #	Competency	Course-Level SLO	Program-Level SLO	Test Question	Aggregated Student Outcomes	Analysis	Decision / Action
1	Ethics Level 1 – unbundled	1	2	Sollicitudin nibh sit amet commodo nulla facilisi.	8/10	Average student performance on ethical concerns (65%) was weaker than their average performance on business management (80%).

Ethics: Questions 2 and 4 seemed more challenging; expectations were not met.

Business Mgmt: Students seemed stronger on the unbundled questions – 85% vs 77%.

Performance target met. | Should there be a change in teaching strategy?

Resources?

Use of quizzes?

Practice questions during class time?

Revision to test questions?

Changes in homework assignments?

Reteaching?

Program of Study? |
2	Ethics Level 1 – Scenario question	1	2	Sollicitudin nibh sit amet commodo nulla facilisi.	6/10		
3	Ethics Level 2– unbundled	1	2	Sollicitudin nibh sit amet commodo nulla faclisi.	7/10		
4	Ethics Level 2 – Scenario question	1	2	Sollicitudin nibh sit amet commodo nulla facilisi.	5/10		
5	Business Mgmt – Unbundled	5	9	Sollicitudin nibh sit amet commodo nulla facilisi.	9/10		
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8	Business Mgmt	5	9	Sollicitudin nibh sit amet commodo nulla facilisi.	7/10		
9	Business Mgmt	5	9	Sollicitudin nibh sit amet commodo nulla facilisi.	8/10		
10	Public Health	3	4	Sollicitudin nibh sit amet commodo nulla facilisi.	7/10		

STRATEGIES TO STRENGTHEN STUDENT ASSESSMENT

Technique #3

3. Stop Reinventing the Wheel!

Collaborate with your fellow faculty members to develop a **COMMON DEPARTMENTAL EXAM**.

You can focus on a specific test to study student performance on targeted content.

Collaborate to develop the test blueprint, then assemble and/or write the test questions.

Create or assemble a few extra questions related to each competency.

Every time this course is taught, no matter the instructor, this **common departmental exam is to be used.**

The common departmental exam can be changed over time, based upon student performance… collaboratively and based upon student learning outcomes.
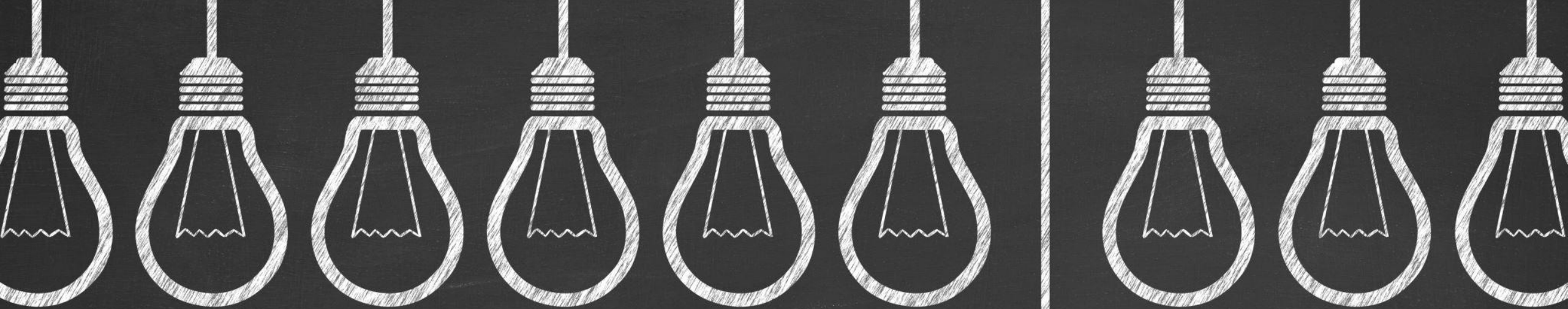
STRATEGIES TO STRENGTHEN STUDENT ASSESSMENT

Technique #4

4. USE YOUR LEARNING MANAGEMENT SYSTEM (LMS)

Use your Learning Management System

Build ITEM BANKS or POOLS to house the test questions. Populate the banks with more questions than you need for each targeted competency.

Ex: Build banks/pools for…

- Ethics Level 1 Unbundled
- Ethics Level 1
- Ethics Level 2 Unbundled
- Ethics Level 2
- Bus Mgmt Unbundled
- Bus Mgmt
- Public Health

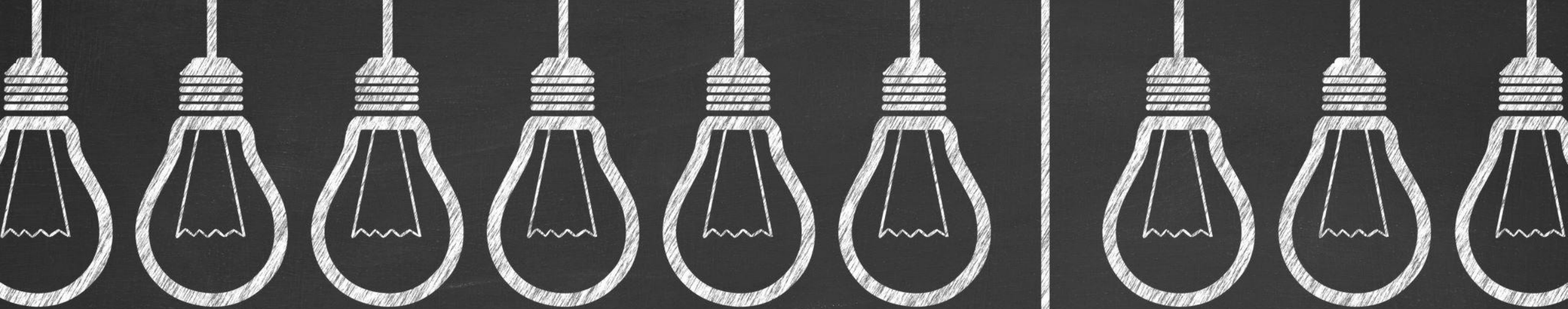| Item #	Competency	Course-Level SLO	Program-Level SLO	Test Question
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9	Business Mgmt	5	9	Sollicitudin nibh sit amet commodo nulla facilisi.
10	Public Health	3	4	Sollicitudin nibh sit amet commodo nulla facilisi.

Talk to your LMS trainers.

Faculty teams can develop their item banks/pools over time – expanding them. Test questions can become reusable for multiple purposes.

Depending upon your system and the version, your banks or pools of test questions may be linked to goals or outcomes (course and program, for example).

Your LMS will be able to do some item analysis for you, giving you feedback about each question's quality, difficulty, and ability to discriminate. You'll be better able to improve your test effectiveness.

To help prevent cheating, test questions within a bank or pool might be randomized. For example, you might choose any 3 out of 7 questions from a given bank.

You can either copy out the course shell from semester to semester or IMPORT the common exam into each semester's shell.

You should be able to EXPORT the class performance on the test in a way that aggregates student results item by item, allowing you to see patterns of strength and weakness.

You'll be able to generate different versions of your targeted exam.

EXAMPLE

Item #	Competency	Course-Level SLO	Program-Level SLO	Test Question	Aggregated Student Outcomes	Analysis	Decision / Action
1	Ethics Level 1 – unbundled	1	2	Sollicitudin nibh sit amet commodo nulla facilisi.	**8/10**	Average student performance on ethical concerns (65%) was weaker than their average performance on business management (80%). Ethics: Questions 2 and 4 seemed more challenging; expectations were not met. Business Mgmt: Students seemed stronger on the unbundled questions – 85% vs 77%. Performance target met.	Should there be a change in teaching strategy? Resources? Use of quizzes? Practice questions during class time? Revision to test questions? Changes in homework assignments? Reteaching? Program of Study?
2	Ethics Level 1 – Scenario question	1	2	Sollicitudin nibh sit amet commodo nulla facilisi.	**6/10**		
3	Ethics Level 2– unbundled	1	2	Sollicitudin nibh sit amet commodo nulla faclisi.	**7/10**		
4	Ethics Level 2 – Scenario question	1	2	Sollicitudin nibh sit amet commodo nulla facilisi.	**5/10**		
5	Business Mgmt – Unbundled	5	9	Sollicitudin nibh sit amet commodo nulla facilisi.	**9/10**		
6	Business Mgmt - Unbundled	5	9	Sollicitudin nibh sit amet commodo nulla facilisi.	**8/10**		
7	Business Mgmt	5	9	Sollicitudin nibh sit amet commodo nulla facilisi.	**8/10**		
8	Business Mgmt	5	9	Sollicitudin nibh sit amet commodo nulla facilisi.	**7/10**		
9	Business Mgmt	5	9	Sollicitudin nibh sit amet commodo nulla facilisi.	**8/10**		
10	Public Health	3	4	Sollicitudin nibh sit amet commodo nulla facilisi.	**7/10**		

STRATEGIES TO STRENGTHEN STUDENT ASSESSMENT

Technique #5

5. Use a RUBRIC to assess projects, presentations, and other performances.

Criteria or Competencies		Level or Performance: Rating Scale			
		3: Exemplary	2: Acceptable	1: Unacceptable	Points
	Criterion 1 (PLO 2)	Description	Description	Description	
	Criterion 2 (PLO 6)	Description	Description	Description	
	Criterion 3 (PLO 10)	Description	Description	Description	
	Points				

It's an ideal time to map each criterion to the relevant PSLO.

Collaborate to develop the rubric

Consult with your colleagues to consider the best way to assess the criteria or competencies.

The use of a rubric helps ensure consistent and impartial grading. It helps communicate your expectations to your students.

Once the rubric is developed, it can become a COMMON DEPARTMENTAL ASSIGNMENT AND RUBRIC.

Don't reinvent the wheel!

Utilize projects, presentations, and other performances.

Criteria or Competencies		Level or Performance: Rating Scale			
		3: Exemplary	2: Acceptable	1: Unacceptable	Points
	Criterion 1 (PLO 2)	Description	Description	Description	
	Criterion 2 (PLO 6)	Description	Description	Description	
	Criterion 3 (PLO 10)	Description	Description	Description	
	Points				

Using the Rubric

Provide the rubric to the students as you assign and explain the project so that your expectations are clear.

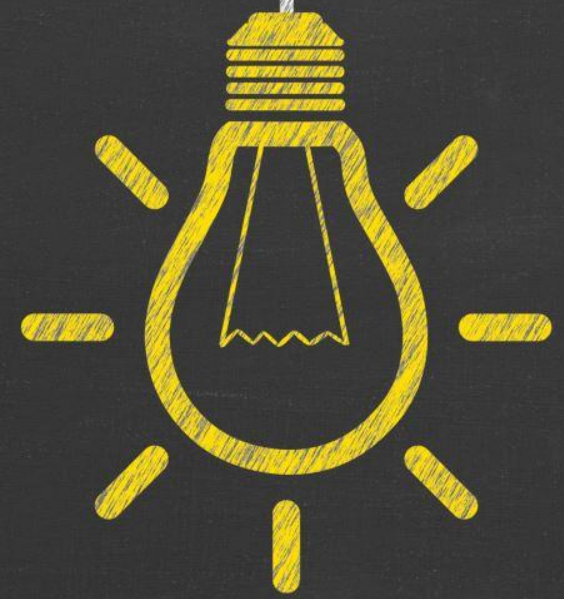Use the rubric as you evaluate each student's work.

Aggregate the student scores on a blank copy of the rubric to help see patterns of strength and weakness.*
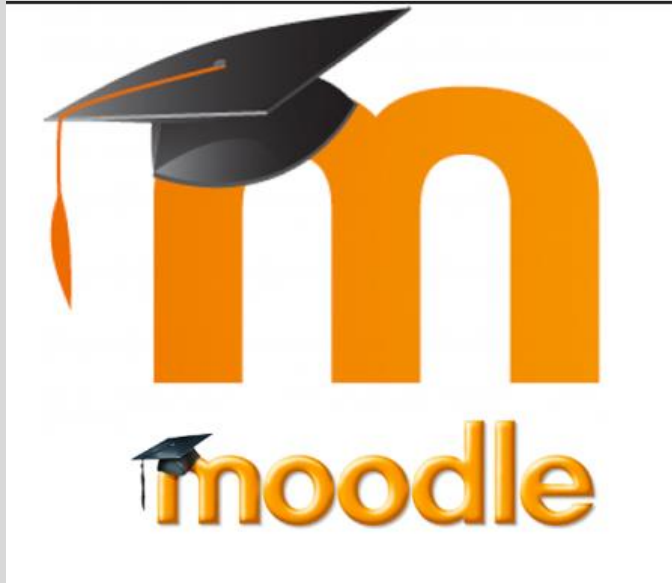
Share the aggregated results with your colleagues to make decisions about improving outcomes, the assignment, or the curriculum.
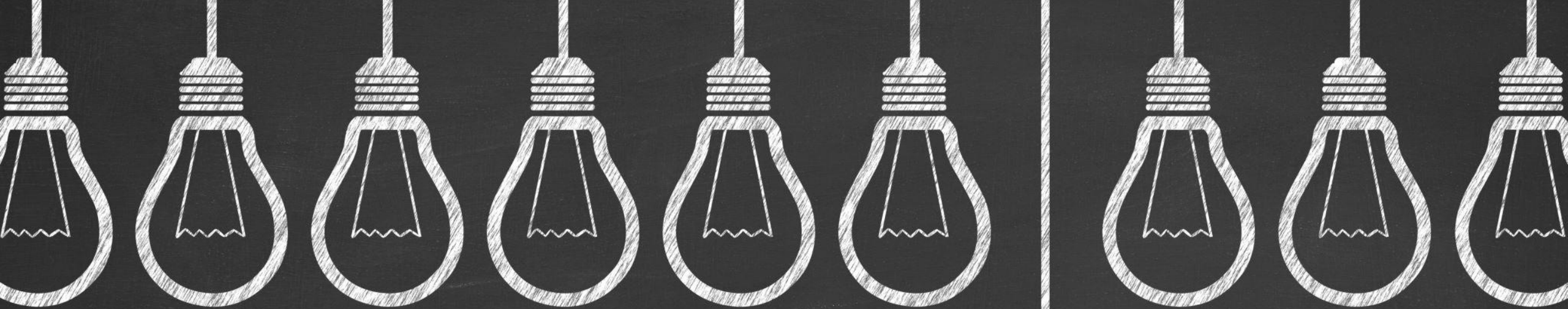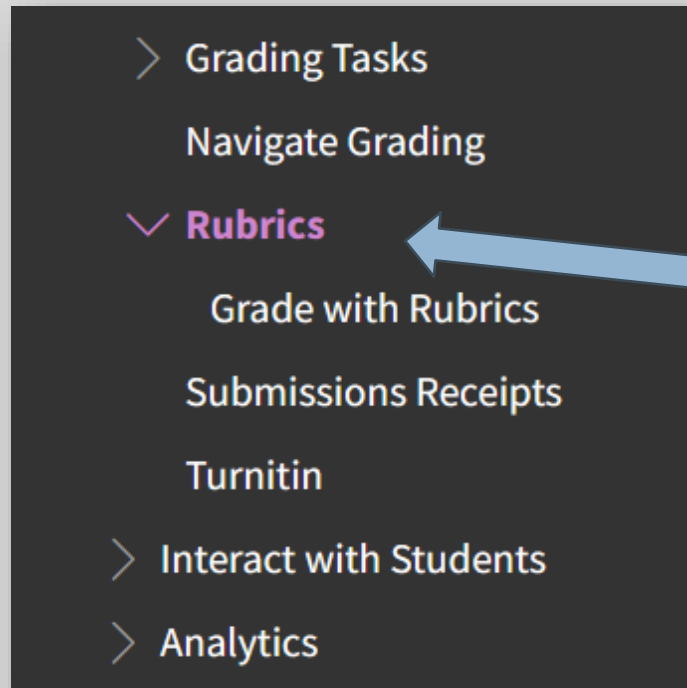
STRATEGIES TO STRENGTHEN STUDENT ASSESSMENT

Technique #6

6. USE YOUR LEARNING MANAGEMENT SYSTEM (LMS)

Build and Use your Rubrics in your Learning Management System

> Grading Tasks

Navigate Grading

∨ **Rubrics**

   Grade with Rubrics

Submissions Receipts

Turnitin

> Interact with Students

> Analytics

This is a screenshot of Blackboard's Navigation Panel.

Grade Categories

Grade categories are groups of similar coursework. You can add custom categories to the gradebook.

Add New Category

Assignment

Test

Discussion

Exam

Homework

Presentation

Quiz

Attendance

Course Rubrics

Create New Rubric

Criteria	Excellent	Proficient	🖉 🗑
Criterion 1	100% 🖉 *Type a description*	75% *Type a description*	
25% of total grade			
Align with goals			

Excellent	Satisfactory	Unsatisfactory	Poor
100 %	75 %	50 %	25 %
Makes a strong stand and defines the context in the introductory paragraph.			

Essay Evaluation

Criteria	Excellent	Proficient	Satisfactory	Unsatisfactory
State a position **25%** of total grade	**100%** Makes a strong stand and defines the context in the introductory paragraph. Position is restated throughout and reinforced with examples and included in the conclusion.	**75%** Makes strong stand and defines the context in introductory paragraph.	**50%** Makes a stand, but could be more powerful.	**25%** Doesn't take a stand or provide context.
Support hypothesis **25%** of total grade	**100%** Provided more than three arguments in support of the hypothesis. Arguments supported with more than citations. Writer incorporated own opinions. Examples incorporated in storytelling fashion.	**75%** Provides three main arguments in support of the hypothesis. Gives clear and accurate examples and development of the three main arguments.	**50%** Fewer than three main arguments and incomplete examples in support of arguments.	**25%** Minimal idea development, limited and/or unrelated details. Doesn't give arguments in support of the hypothesis.
Organization **25%** of total grade	**100%** Depth and complexity of ideas supported by rich, engaging and/or pertinent details. Evidence analysis, reflection and insight.	**75%** Logical organization. Includes a compelling introduction, strong informative body, and satisfying conclusion. Has appropriate paragraph format.	**50%** Writing has a clear beginning, middle, and end. General use of appropriate paragraph format.	**25%** Random or weak organization. No introduction and/or conclusion. Paragraphs lack development and coherence.

Rubrics: The Student View (Bb)

Guest Speaker Review

Assignment

Dr. Thacker's thoughts were enlightening and maybe a bit controversial. Spend some time reviewing his presentation and weighing in. Add your observations and opinions here.

Use this space to build your submission.

You can add text, images, and files.

Add Content

Rubric Details

Maximum Score	100 points

State a position ⌄
25% of total grade

Support hypothesis ⌄
25% of total grade

Organization ⌃
25% of total grade

Excellent
Depth and complexity of ideas supported by rich, engaging and/or pertinent details. Evidence analysis, reflection, and insight. — 25
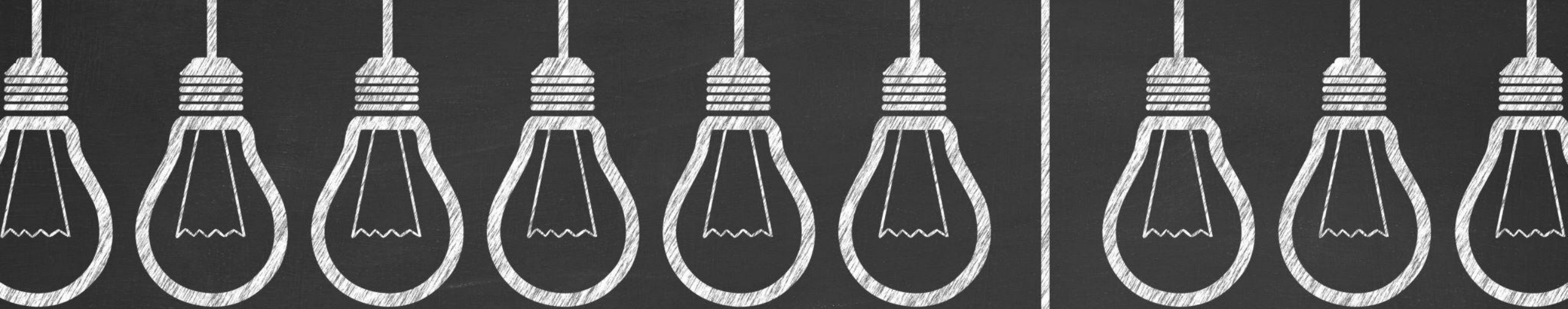
Proficient
Logical organization. Includes a compelling introduction, strong informative body, and satisfying conclusion. Has appropriate paragraph format. — 18.8

Satisfactory
Writing has a clear beginning, middle, and end. General use of appropriate paragraph format. — 12.5

STRATEGIES TO STRENGTHEN STUDENT ASSESSMENT

Technique #7

Questions

Examity® Online Proctoring

Grade Tests

Item Analysis

Question Settings and Metadata

> Question Types

Resolve Student Issues with Tests

> Reuse Questions

Test and Survey Options

Test and Survey Results

> Track Performance

Watch Videos

> Ultra Experience

> Administrator

Enable the Ultra Experience

Web Folders and Shared Locations

Statistics help you evaluate the effectiveness of your tests and surveys. For example, find out what percentage of your students chose each Multiple Choice answer for one of your tests.

In this table, learn about the available reports and their uses.

Statistical Report	Information Provided	Feature
Column Statistics	Displays the overall class performance on the Grade Center item that includes average score and standard deviation. Lists the number of submissions for the item that are in progress or need grading.	Tests Surveys Assignments Graded discussions, wikis, blogs, journals
Attempts Statistics	Displays the average score and distribution of student responses for each question.	Tests Surveys
Item analysis	Provides statistics on overall test performance and individual questions. This data identifies questions that might be poor discriminators of student performance. You can use this information to improve questions for future test administrations or to adjust credit on current attempts. This tool contains some of the same information as the column and attempts statistics data but presents it in a different way.	Tests

Download the test scores to Excel (csv) to study patterns of strength and weakness.

This will be easier if you have organized your test according to your blueprint or plan.

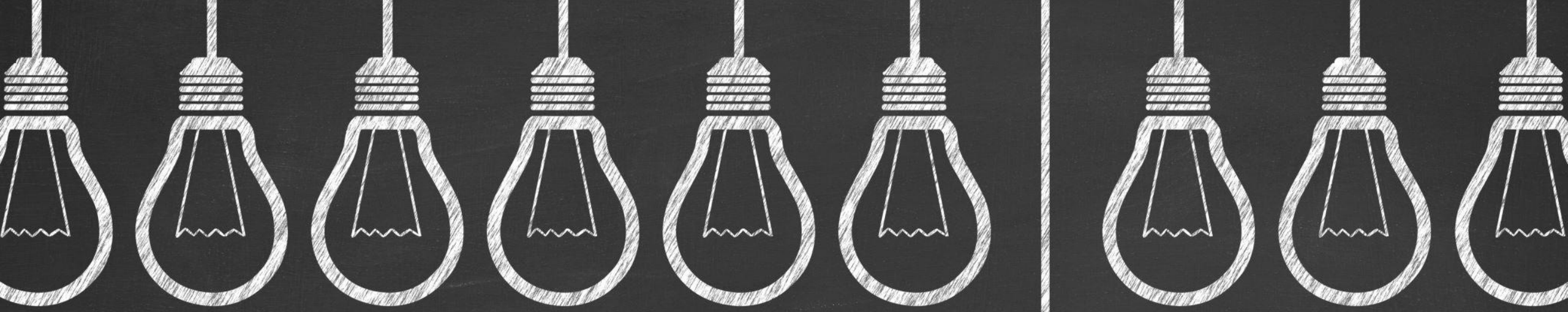For example, part one of your test might have been devoted to ethics.

Part two of the test measures funeral business management.

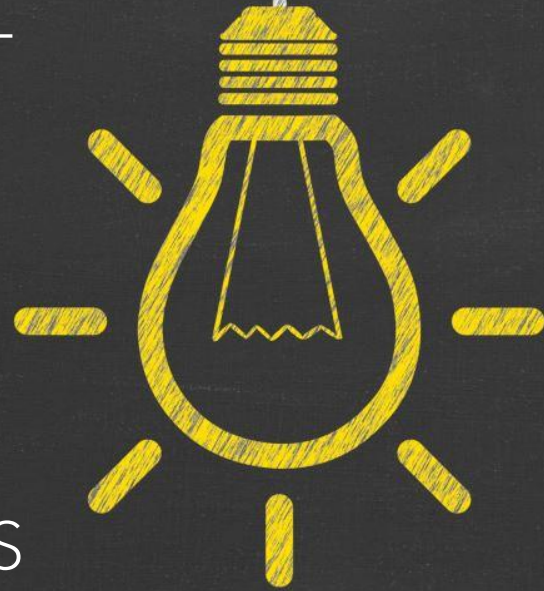Part three can address public health.

You'll be able to easily separate the sections for analysis.

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7	Business Mgmt	5	9	Sollicitudin nibh sit amet commodo nulla facilisi.	8/10		
8	Business Mgmt	5	9	Sollicitudin nibh sit amet commodo nulla facilisi.	7/10		
9	Business Mgmt	5	9	Sollicitudin nibh sit amet commodo nulla facilisi.	8/10		
10	Public Health	3	4	Sollicitudin nibh sit amet commodo nulla facilisi.	7/10		

1. UNBUNDLE CONCEPTS IN TESTING AS WELL AS TEACHING
2. DEVELOP TEST BLUEPRINTS - PLANS
3. USE COMMON DEPARTMENTAL EXAMS
4. BUILD YOUR TESTS USING ITEM BANKS OR POOLS IN YOUR LMS
5. USE RUBRICS FOR PROJECT-BASED EVALUATIONS
6. BUILD AND USE YOUR RUBRICS IN YOUR LMS
7. LET YOUR LMS HELP YOU WITH ANALYZING STUDENT OUTCOMES – THE DATA ANALYSIS

- Debbie Kell
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