

“If the purpose of assessment is to ensure that course goals are met, and if students do well on the final exam, then students should be able to remember important course content after the course is over.” – Anonymous

Do you agree or disagree with this quote? Why?

Assessment is an ongoing process aimed at understanding and improving student learning. It involves making our expectations explicit and public; setting appropriate and high standards for learning quality; systematically gathering, analyzing, and interpreting evidence to determine how well performance matches those expectations and standards; and using the resulting information to document, explain, and improve performance.

Angelo, T.A. (1995). Reassessing and defining assessment. AAHE Bulletin, 48(3): 149.

		Assessment Target	
		My Course & Instruction	Student Learning
Assessment Audience	Instructor	Course correction & iterative improvement	Just-in-time teaching Assigning grades Preparation for class
	Students	Sharing and normalizing experiences	Supported practice & feedback Reflection

Four Quadrants of Assessment

Formative Assessment	Summative Assessment
Evaluation with a goal of growth/development/learning (“formation”) along the way.	Evaluation with a goal of determining the extent to which a learning objective or skill has been mastered (“in sum”).

Basic Assessment Terminology

Type of Assessment	Pros	Cons
Multiple-Choice Exams		
Free-Response Exams (e.g., short answer q's)		
Essays		
Oral Exams		
Practical Exams (e.g., run this protocol)		
Open-Book/Notes Exams		
Presentations		
Written Reports (e.g., lab report)		
Portfolios (e.g., collection of artifacts all turned in at once)		

For each pair of items, decide which is better (and why):¹

<p>1-A. The promiscuous use of sprays, oils, and antiseptics in the nose during acute colds is a pernicious practice because it may have a deleterious effect on:</p> <ul style="list-style-type: none"> A. the olfactory nerve B. red blood cells C. the sinuses [✓] D. white blood cells 	<p>1-B. Frequent use of sprays, oils, and antiseptics in the nose during a bad cold may result in:</p> <ul style="list-style-type: none"> A. congestion of the mucous membrane in the nose B. damage to the olfactory nerve C. destruction of white blood cells D. the spreading of the infection to the sinuses [✓]
<p>2-A. In 1965, the death rate from accidents of all types per 100,000 population in the 15-24 age group was:</p> <ul style="list-style-type: none"> A. 59.0 B. 59.1 C. 59.2 [✓] D. 59.3 	<p>2-B. In 1965, the leading cause of death per 100,000 population in the 15-24 age group was from:</p> <ul style="list-style-type: none"> A. accidents [✓] B. cancer C. respiratory disease D. rheumatic heart disease
<p>3-A. About how many calories are recommended daily for a 14-year-old who is 62" tall, weighs 103 lbs., and is moderately active?</p> <ul style="list-style-type: none"> A. 1,500 B. 2,000 C. 2,500 [✓] D. 3,000 	<p>3-B. About how many calories are recommended daily for a 14-year-old who is 62" tall, weighs 103 lbs., and is moderately active?</p> <ul style="list-style-type: none"> A. 0 B. 2,000 C. 2,500 [✓] D. 3,000
<p>4-A. Which of the following is a category in Bloom's cognitive domain taxonomy?</p> <ul style="list-style-type: none"> A. Critical thinking B. Reasoning ability C. Rote Learning D. All of the above E. None of the above [✓] 	<p>4-B. What is the most complex level in Bloom's cognitive domain taxonomy?</p> <ul style="list-style-type: none"> A. Analysis B. Comprehension C. Evaluation [✓] D. Knowledge E. Synthesis

¹ Stolen and adapted from Zimmero, D. (2004). *Writing Good Multiple-Choice Exams*, pp. 27-28.

The Case of the Frustrated Student

This semester I enrolled in an introductory biology course hoping to go into medicine. I made an easy A in my high school AP Biology class, so I figured I would be well-prepared for this course. I approach this class like most others: I attend lecture (I've only missed two this semester), read the textbook (usually before class, if I have time), and turn in the homework if it's going to be graded. Prof. Lopez is great; she's really well organized and follows the book closely. The homework has been helpful for learning terms and information.

The first exam in this course was NOT what I expected. None of the questions were short answer or essay. It was all multiple choice—100 of them and I barely finished them in the 75-minute exam period. Some of the questions were easy, just simple recall. But about a third of the questions tested us on things we never learned and skipped stuff we had covered in class. For example, we learned about the *lac* operon last week, and it wasn't even on the test. But there was this question asking us to “select the best description of a strategy bacteria use to regulate gene expression” followed by all these convoluted descriptions of possible strategies. How am I supposed to know about that? I got a 72% on that test and Prof. Lopez didn't even explain any of the more difficult questions. What a crock!

Forget biology and medicine; it's not for me.

Questions for Discussion:

- What issues might be contributing to this situation?
- What impact did the exam have on this student's motivation to learn?
- What suggestions do you have for the professor?

Which is the best exam question?

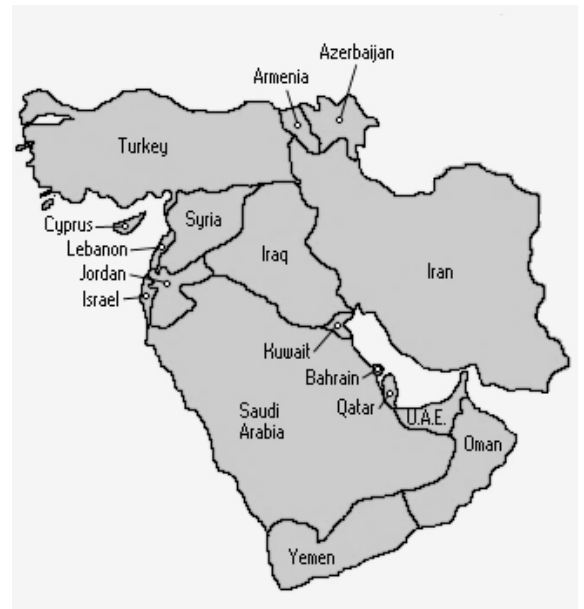
- A. What was the date of the battle of the Spanish Armada?
- B. Give the date of the battle of the Spanish Armada, and provide some historical evidence that supports your answer.

- A. List three distinctive characteristics for each country in the region.
- B. Imagine you are working for an international company that wants to establish a commercial presence in this region. The company sells a product that requires a modest per capita income for people to purchase it. The corporate executives understand that they will not realize a significant income during the first five years or so, but they want to establish a foothold in the region with hopes of financial success in the not-too-distant future.

The key to success is being in a country that will have enough political stability to allow economic growth and sufficient other factors to support at least moderately high earning power among the general population.

The company had asked you to serve on an advisory board that will recommend the country in which they should open a new branch operation.

Given what you have learned about the countries in this region, what country would you recommend as best meeting the needs of the company?



To what purposes are these questions most suited?

Assessment Planning Guide	
What are you going to ask your students to do?	
Why are you asking your students to do this, specifically?	
How <i>much</i> are you asking your students to do (e.g., length, hours spent, etc.)?	
Will students work alone or collaboratively?	
Why?	
Which learning objectives and/or component skills are being tested/developed?	

Pro-tip: At Georgia Tech, for a 3 credit hour non-lab course, the expectation is that students will spend 3 hours in class each week, and 6 hours on course-related work.

Describe the specific markers of a student's performance in each of the grade columns on this chart. Where possible, identify specific criteria, and explain the difference between student performances across the grade spectrum, for each criteria.

A-student	B-student	C-student	Fail