

Standards Based Grading: Enhancing Learning Through Assessment

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Disclaimer: No matter what you hear today, nothing that I say should be interpreted to mean that I think anything that you are currently doing is wrong. What I say is a reflection of what has worked (and not worked) for me and my students.

Who Am I?



Typical Goals We Have For Students

Learn the course content

Apply the material in unfamiliar contexts

Perseverance

Be okay with making mistakes

Growth mindset

Think creatively

⋮

Nine weeks into the semester



Christina

The Facts

Sporadic attendance

Minimal homework completed

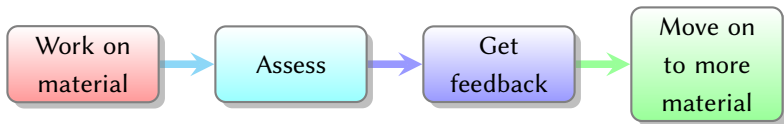
Poor performance on quizzes

General disinterest

Grade: **Beyond Repair**

How does assessment **impede** your students in attaining the goals you have for your students?

The usual way



The magic gradebook

HW 1	HW 2	HW 3	HW 4	HW 5	HW 6	HW 7	HW 8	HW 9	HW 10	HW 11	Q 1S	Q 1G	Q 2S	Q 2G	Q 3S	Q 3G
			4	4	9				5				2.9	9	2	9
5	6	10	10	8	10	10	9	10	10	8	10	9	6.5	9	10	10
6	6	10	10	9	9	9	10	10	8	8	10	10	6.5	10	10	10
6	5	10	10	9.5	10	9	8	8	9	8	6.4	10	3.4	9.5	10	10
6	4		9	7	6.5						5	10	9.5	10	10	10
3		6	5	4.5	5.5	9		10			7.4	8	3.1	10	10	10
2	4										8	8	9	10	4.4	10
5	6	9	10	10	5.5	8.5	10	7	8	8	10	10	6.5	10	11	10
6	4	6.5	9	10	7.5	10	10	10	10	8	8	9	4.5	10	11	9
	6	3	7.5	8	7						x	x	x	x	9	10
3	3	4.5	5.5	4	6	8	9	7	10	8	2.4	8	6	10	4	10
6	4	7	9	9	9	10	8	9	5	7	7	9	7.5	10	10	10
6	6	7	10	8	6	8	9	6	7		8	9	9.5	9.5		
5	5	9.5	10	10	9		6	8	6	8	2	10	4.5	9	4.5	10
4	6	7	10	10	10	9	10	8	7.5	7.5	8	8	9.8	10	8	9
5	6	7	10	10	7.5	10	10	10	7.5	8	8	10	9	10	12	10
6	6	10	9	10	10	9	9	10	9	8	10	10	10	10	10	10
4	6	8	8	10	10	10	8	10	9	7	9	10	7	10	5.4	10
5	5	10	10	10	4	10	7	9	8	4	8	9	2.4	10	1.4	9
5	5	9	9	9	8	9	6	9	5	7	9	9	8.5	10	7	9
6	3	4	10	9	9	10	8	9	6.5	8	9	10		10	8.4	10
6	6	9	10	9	8	8	9	8	5	8	6.8	9	7	10	8.5	10
6	6	10	10	10	10	10	10	10	10	8	10	10	10	10	10	10
5.00	5.10	7.71	8.81	8.48	7.93	9.21	8.59	8.78	7.53		7.24	8.81	6.34	9.36	7.93	9.76

What message do we send to students when we eliminate an assessment from the gradebook?

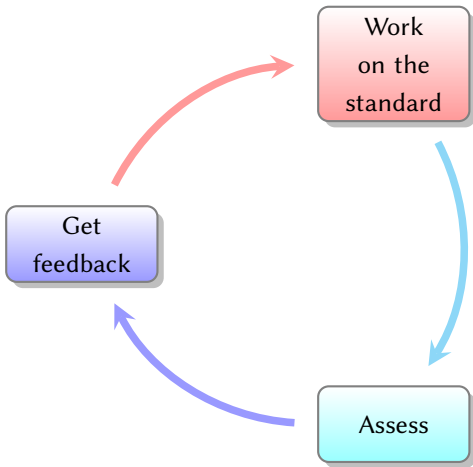
How does assessment influence how students see themselves?

Standards Based Assessment

“ Ever tried. Ever failed. No matter. Try again. Fail again. Fail better. ”

–Samuel Beckett

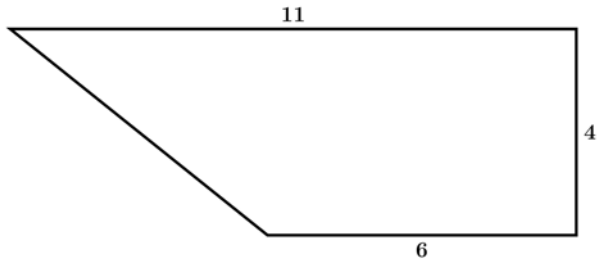
A different way



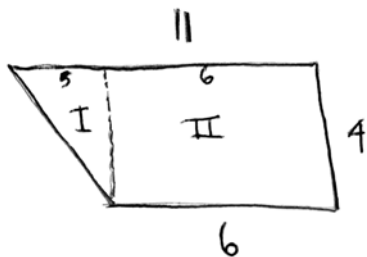
A Standards List

A Sample Quiz Problem

1. Find the area of the following region.



Sample Solution 1

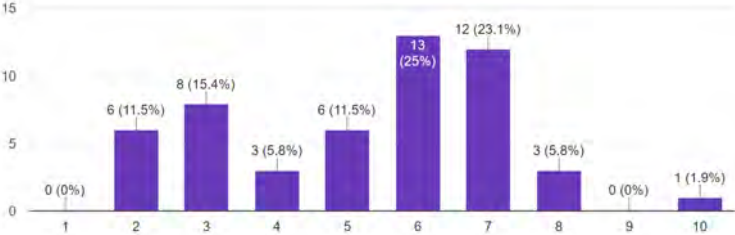


$$\begin{aligned} \text{Area} &= (\text{Area of I}) + (\text{Area of II}) \\ &= \frac{1}{2}(4+5) + (4+6) \\ &= \frac{9}{2} + 10 \\ &= \frac{19}{2} \end{aligned}$$

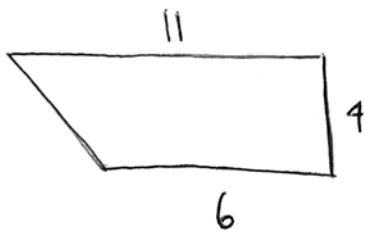
Department Responses 1

What score would you give for this work?

52 responses



Sample Solution 2

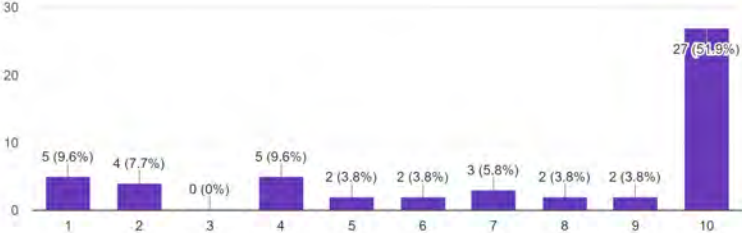


$$\begin{aligned} \text{Area} &\rightarrow \frac{1}{2} (6 + 11) \times 4 \\ &= 34 \end{aligned}$$

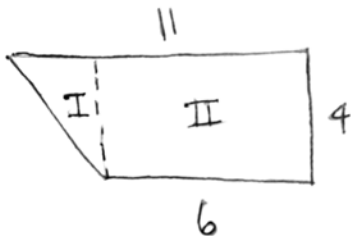
Department Responses 2

What score would you give for this work?

52 responses



Sample Solution 3



$$\begin{aligned}\text{Area I} &= \frac{1}{2} (4 \times 5) \\ &= 2 \times \frac{5}{2} \\ &= 5\end{aligned}$$

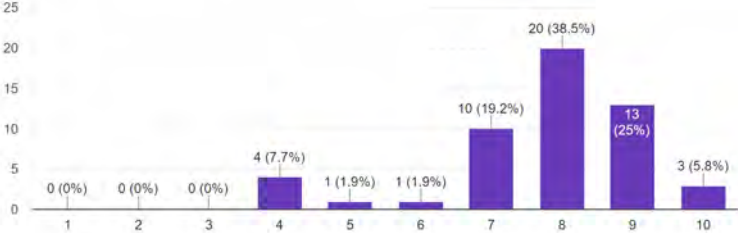
$$\begin{aligned}\text{Area II} &= 4 \times 6 \\ &= 24\end{aligned}$$

(29)

Department Responses 3

What score would you give for this work?

52 responses



How would I grade the problem?

Name: _____

Areas

Standard	Actual
Compute the areas of rectangles and triangles	
Compute the areas of irregular polygons by decomposing them into rectangles and triangles	

My Scoring Rubric

other method upon which we decide. The possible scores for each standard are between *incomplete* (1) and *mastery* (4)

Only a score of 3 or above will count toward your overall grade!

with the following interpretation of each score:

4 You have mastered the skill, demonstrating complete comprehension of the concepts and fully describing your solution in a clear, coherent fashion, making no errors.

3.75 You have completely mastered the skill, but perhaps made a small notational, arithmetic or algebraic error.

3.5 You demonstrated that you have conceptual understanding and can apply the skill to solve complex problems, but perhaps made serious notational, arithmetic or algebraic errors, or failed to show all the steps in your reasoning.

3 You demonstrated basic competency, that is basic conceptual understanding.

2 You have not demonstrated basic competency, but have heard of the skill and know enough to write down something. Your solution is confusing or full of serious errors.

1 You made no progress on the problem.

A Different Kind of Gradebook

Whom does it benefit?

Five weeks in



José

The Facts

Near-perfect attendance

Homework completed

Poor performance on quizzes

General disinterest

Grade: Unimportant

Top of the class



Elsy

The Facts

Perfect attendance

Homework immaculate

Nearly perfect on quizzes

Lives to be in class

Grade: Not quite high enough in her mind

Some drawbacks

More work and more time for you—at least, initially

Confusing to students

Pressure from other faculty

Designing and grading assessments outside of the usual quizzes and exams takes a lot of time

Construction of the standards list requires strong content knowledge

Students don't concoct as many brilliantly stupid excuses

Not ready for the full Glesser?



Eric Dewar ▸ **Adam Glesser**

August 25, 2015 · Boston, MA · 🌐

Guess who's got two thumbs and going to a standards-based system for biostats? This guy!



Adam Glesser

1 Comment



Like



Comment



Adam Glesser Wait. The full Glesser? Don't tease me, man.

Like · Reply · August 25, 2015 at 2:04pm



Eric Dewar Aww yiss. Well, as far as I could remember and glean from your syllabi.

Like · Reply · August 25, 2015 at 4:01pm

bit.ly/adamglessner