



Classroom Assessment

GK-12 Workshop
2008
Louis Keiner

Pre-quiz:

- Assessment is supposed to determine:
 - a) if a student has met the learning objectives
 - b) ~~a student's frustration tolerance~~
 - c) ~~a student's intelligence level~~
 - d) which direction to go with instruction

Types of Assessment:

Formative Assessment:

During instruction. Measures how far a student has progressed towards being able to do a certain learning outcome.

*Modify instruction
feedback to the student.*

Summative Assessment:

At the end. Measures how well a student is able to do a certain learning outcome.

Travel Analogy

- Formative Assessment: Where are we? Are we going in the right direction?

- Summative Assessment: Did we get to the place we wanted to go?

Examples:

- Formative Assessment:

Pop quiz ←

Lab activity ←

Q + A session

Interview

Journals ←

Homework ←

- Summative Assessment:

Final exam

End of section test or paper

Term paper.

Presentation

Portfolio

For a valid assessment, you must make sure that the method of assessment matches well with:

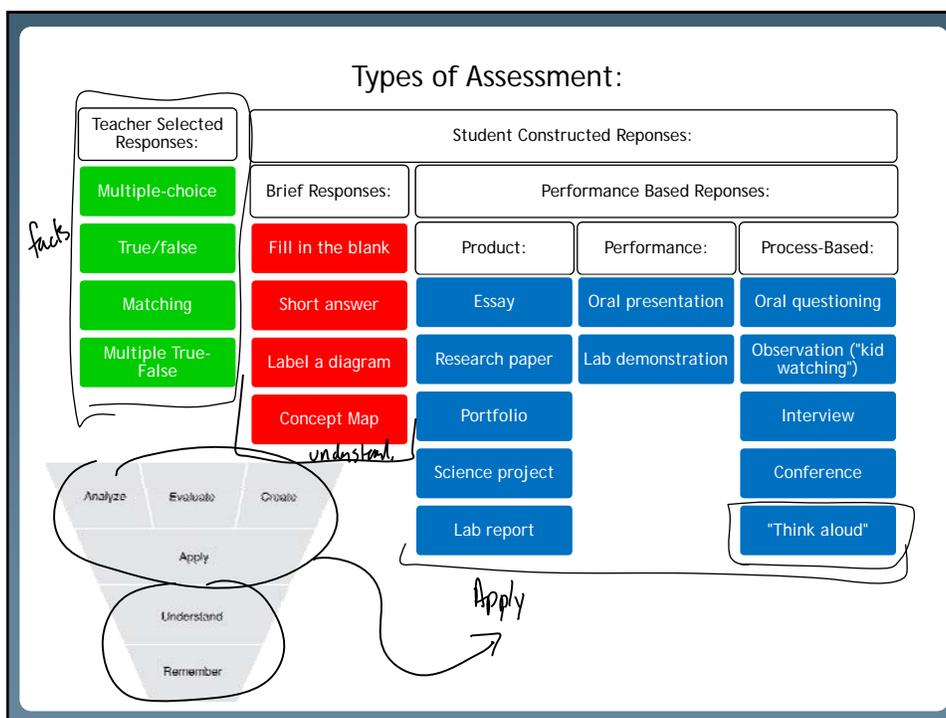
- a) the learning outcome

- b) the method of instruction

Key Elements of Formative Assessment

1. The identification by teachers & learners of learning goals, intentions or outcomes and criteria for achieving these.
2. Rich conversations between teachers & students that continually build and go deeper.
3. The provision of effective, timely feedback to enable students to advance their learning.
4. The active involvement of students in their own learning.
5. Teachers responding to identified learning needs and strengths by modifying their teaching approach(es).

Black & William, 1998



Specifics:

Questioning Strategies

Whys

questions that generate more than a fact response.
meta-cognitive processes (students' thinking process)
zero in on problems in thought process.

Multiple Choice

- K ions are used by cells to maintain homeostasis. Which method of transport are used to carry these ions into and out of the cell.
- a) Active Transport
 - b) Passive Transport
 - c) Facilitative Transport

Explain why you picked the one you did.

Multiple Choice

- Which is not an example of a biological adaptation that can enhance the survival of an individual?
- a) A giraffe born with a longer neck can reach more food
 - b) A chipmunk puts on weight in late fall to survive winter
 - c) A tree frog is the same green color as the leaves on its tree
 - d) An adult gazelle can outrun a lion

*Written
rebutals.
explain thought
process.*

Multiple Choice

- How does a cell wall differ from a cell membrane?
- a) It is only present in plant cells ←
- b) It allows transport of materials in and out of the cell
- c) It provides protection and support for the cell
- d) It provides protection for the cell nucleus

Multiple Choice

Which of the following is an example of how interrelationships among organisms generates stability

- among the organisms.*
- a) Bobcats limit rabbit populations, thus allowing carrots to maintain a steady population
 - b) Shark and whale population sizes oscillate until one species goes extinct
 - c) All predators are removed from the lake until algae takes over and forms a new ~~stable~~ environment
 - d) Sharks and dolphins compete over Atlantic Menhaden, so that algae blooms occur more frequently

Multiple Choice

- You have sixteen beans on a table. Each bean is identical in weight. The beans all together have a mass of 50g. Can you tell me the weight of only one?

a) .32g

b) 3.125g

c) .3125g

d)

Essays

Pros:

Open questions

Assess higher order thinking. — connects concepts.

Partial Credit.

Formative
Assess on writing
skills
for

Cons: Grading takes a long time

- Looking at the class amphibia, describe the adaptations that these organisms have to escape predation. Given a blue-bellied tree frog,

- Describe the general pattern of the nitrogen cycle, and describe the role that herbivores play in it.

- In class we've learned about communities, and how populations of organisms in that community interact. Explain the interactions between these organisms: yellow snapper, remora, shark, shrimp and barnacles and seaweed...

- Explain the process the geologist uses to determine the internal structure of the earth.

- A major concept in ecology is how energy flows through ecosystems. Given the following organisms in a sample ecosystem, explain the flow of energy through this ecosystem....

Grading Rubrics

- Steps to creating a Rubric:
 1. Determine the learning outcomes that a student is supposed to be able to demonstrate in this assignment
 2. Decide what mastery of each learning outcome looks like
 3. Assign weights to each learning outcome
 4. Give it to the students and help it inform your teaching and learning!



Let's make a rubric:

Learning Outcome	Excellent 4	Good 3	Fair 2	Poor 1		
Name the five interactions	4-5	3	2	<2	1	
Match the animals correctly together					1	4
Identify the correctly interaction between sets					1	3
Correctly explain why the interaction occurred					1	3
Explain how each interaction affects each animal					2	2