

# Student Generated Assessments

A New Tool to Assist Student Learning

## Tonite on AUSD TV

- You thought you've seen some amazing things
- You thought there were limits to what your students would do
- You thought you'd been there, done that
- You thought wrong...because, tonight on Fox, we bring you:
- When Good Students Write Bad Tests

## Our Task Today

- Review assessment types
- Review how to write items
- Plan to have students write test items
- Learn from what the students write

## Big Ideas

- Every Multiple Choice Question is a Trick Question
- Every Open Response Question is Open to Interpretation
- It is an unwritten standard that students must pass tests
- If we learn best by doing, why don't we teach our students to write tests so they can take tests better?

# Multiple Choice

## Write Questions

- 3 Multiple Choice to share

## Analyze M/C Samples

- Number of options
- Number of right answers
- Are wrong answers good distractors?
- Are any choices silly or giveaway?

- Is the question about your knowledge of the content or your knowledge of multiple choice questions?

## Critique of Multiple Choice Items

- Only one right answer
- Distractors are reasonable choices based on expected errors
- From 3-5 choices
- Cannot be answered based on another question

## Student Written Multiple-Choice Items

- Tend to be all knowledge based “what is...” type
- Avoid topics they are not comfortable with
- Tend to have ridiculous distractors
- Often only have 3 choices

## Sample 1

- What is the definition of energy?
  - Something I don't have
  - What you have when you have energy
  - A source of force

## Sample 2

- Why is there no gravity on the moon?
  - because it's so far away
  - because it is in space
  - because we used it up
  - because there is no gravity in space

## Sample 3

- What kind of insect can fly?
  - housefly
  - grasshopper
  - worm
  - spider
  - butterfly

## Sample 4

- According to Newton's third law of motion, when you kick a football, that's an action--what's the reaction?
  - the football flies away

- the football kicks you back
- your foot aches, if you're not wearing shoes
- you win the game

## Generate a rubric for quality multiple choice items

- Be grade sensitive
- 4 points: (above and beyond)
- 3 points: (meets standard)
- 2 points: (partial credit)
- 1 point: (tried)
- 0 points (didn't try)

## Sharing rubric ideas

# Break

# Open Response

## Barometer Story

- Use a barometer to measure the height of a building. Show all work.

## Offered solutions:

- Using the barometer as a ruler, walk up the stairs and flip the barometer end over end along the wall.
- Drop the barometer from the roof and time how long it would take to hit the ground.
- Trade the barometer for a set of floor plans.
- Use the barometer as a scale building in a proportional triangle.

## The Barometer Problem needs a rubric!

- 4 - method would work and is in chapter
- 3 - method would work but is not about pressure
- 2 - method won't work due to an error
- 1 - does not address question
- 0 - blank

## Write Questions

- 3 Open Response to share

## Analyze Open Response Samples

- Does it have a right answer?
- Does it have more than one right answer?
- Is there more than one way to get to the right answer?
- How do you know if your answer is right?

## Student Written Open Response Questions

- Tend to be knowledge based
- Tend to have all-or-nothing rubrics
- Tend to allow short (even one word) answers
- Tend not to use graphics

## Samples 1

- Explain how to grow tomatoes.
- What was the name of the man who invented gravity?
- What is the definition of kinetic energy?
- Name one kind of rock we have studied.
- Draw a picture of the rock cycle.

## Samples 2

- Tell how to make a boat sink or float based on its shape.
- Design an experiment to find out if hot water freezes faster. Tell what you would do.
- Tell how to measure how tall Mount Diablo is.

## Student Written Rubrics

- Tend to be generic
- Tend to be too hard
- Tend to be bimodal
- Tend to be knowledge based

## Sample 1

- 4 - gets it all right
- 3 - gets it mostly right
- 2 - gets something right
- 1 - gets nothing right but tried
- 0 - blank

## Sample 2

- 4 - The picture of the rock cycle includes all the types of rock and their conditions as they are formed.
- 3 - includes all the types of rock but otherwise incomplete.
- 2 - has some types of rock listed, and diagram is unclear/incomplete
- 1 - off topic
- 0 - blank

# Using Student Written Assessments

## Using Student-Written Assessments with Students

- Review questions and practice tests
- Connecting to standards
- Use on your actual test
- Portfolio entries
- Live test items
- Critique and go over items
- Discuss test taking strategies

## How you can use assessment results

- Discover what the students think is important
- Move away from knowledge level questions
- Help students anticipate your (and others') questions on tests
- Improve test skills (theoretically)
- Diagnose areas students are weak\
- See what standards they really understand
- Track results over time (cf. Dr. Jenkins)

## A few words about standardized assessment

- Filtering
- Criteria for item selection
- Impact on test-taking strategy
- Sample sizes

- Scoring open-response items professionally

## A modest proposal

- Try out student-generated assessments
- Evaluate their usefulness in class
- Include samples of student questions, rubrics, and comments
- Send to me for redistribution (networking)
- Jeff Adkins
- Deer Valley HS
- dvhscience@home.com

## Big Ideas

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- It is an unwritten standard that students must pass tests
- If we learn best by doing, why don't we teach our students to write tests so they can take tests better?

## Jeff Adkins

- Former director of assessments New Standards/NCEE
- Former science assessment consultant for Commonwealth of Kentucky
- Currently Science Dept. Co-Chair DVHS
- dvhscience@home.com