Constructed Response Training

OBJECTIVES

Participants will:

- Become familiar with constructed response in the law
- Understand the meaning of constructed response
- Review open-response questions
- Discuss short-answer questions
- Analyze the similarities and differences between open-response and short-answer questions
- Identify when to assess using short-answer or open-response questions
- Practice writing short-answer and open-response questions

CONSTRUCTED RESPONSE - THE LAW

KRS 158.6453

(1) (b) "Constructed response or performance based items" means individual test items that require the student to create an answer rather than select a response and may include fill-in the blank, short-answer, extended answer, open-response, and writing on demand formats;

(5) The state student assessments to be implemented in the 2011-2012 academic year [...] 

(d) The criterion-referenced components required in this subsection shall be composed of constructed response items and multiple choice items and the national norm-referenced components shall be composed of multiple choice items[]

Identify the four most important pieces of information the law presents about constructed response.

1. ____________________________________________________________
2. ____________________________________________________________
3. ____________________________________________________________
4. ____________________________________________________________
WHAT ARE CONSTRUCTED RESPONSE QUESTIONS?

Constructed-response questions are assessment items that ask students to apply knowledge, skills, and critical thinking abilities to real-world, standards-driven performance tasks. Constructed-response questions are so named because there is often more than one way to correctly answer the question, and they require students to “construct” or develop their own answers without the benefit of any suggestions or choices.

*(Tests That Teach by Karen Tankersly)*

Constructed response questions include fill-in the blank, short-answer, extended answer*, open-response, and writing on demand. Here are some characteristics of constructed response questions.

**Constructed response prompts:**

- Can use authentic, real-world situations or stimuli.
- Can include maps, charts, graphs, timelines, reading passages, etc.

**Constructed response questions can assess:**

- Content knowledge.
- Application-level skills.
- One broad standard.
- Several specific standards.

**Constructed response answers:**

- Are based on knowledge.
- Can be simple, requiring students to fill in the blank or answer in one or two sentences.
- Can be complex, requiring students to answer in multiple paragraphs, create graphs, charts, or maps by processing information, or develop a solution for a problem.
- Can require high-level thinking by having students analyze, synthesize, or evaluate information.
- If complex, are scored using a rubric, allowing for no credit, partial credit, or full credit for answering the question. The rubric should include examples to allow for scoring consistency.

*Extended constructed-response questions are lengthier and more complex exercises that allow for a finer level of discrimination in scoring the responses. On K-PREP Tests, extended constructed-response questions will take the form of open-response items.*

OPEN-RESPONSE QUESTIONS - REVIEW

Important note: Whether you are writing your own questions or using other resources you need to make sure you recognize quality open-response questions.
A Quality Open-Response Question

☑ Assesses a student’s ability to apply concepts and/or processes in a new situation based on the state standards learned.
☑ Contains a focus statement, scenario, or lead-in.
☑ Includes at least one content-related task using higher-level verbs. (The verbs should come from the higher levels on Bloom’s Taxonomy: Application, Analysis, Synthesis, and/or Evaluation.)
☑ Allows for at least two possible answers or different ways to show the work for the answer or solve the problem.
☑ Assesses higher-level use of content/concepts, but does NOT assess the student’s use of grammar or mechanics or writing style.
☑ Can be completed in 15-20 minutes using one page.
☑ Is scored using a teacher-designed scoring guide or the Kentucky General Scoring Guide.
☑ Allows answers that may include bullets, lists, diagrams, etc. and whatever else is helpful in communicating knowledge. These are all acceptable responses to open-response questions.

FIVE TYPES OF OPEN-RESPONSE QUESTIONS

1. SCAFFOLDED
   - Sequence of tasks increasingly more difficult/complex
   - Success on one part would likely mean there was success on all previous parts
   - Multipart (simple to complex)
2. SINGLE DIMENSION/COMPONENT
   - Straight-forward question
   - Draw a conclusion or take a position, then support it with explanation, examples, evidence
   - Explain a phenomenon or describe procedures
3. TWO OR MORE RELATIVELY INDEPENDENT COMPONENTS
   - Fairly independent questions addressing the same content
   - Contains multiple parts (A,B,C,etc.)
4. STUDENT CHOICE: TOPICS/OPTIONS PROVIDED
   - Choose from the provided options
5. RESPONSE TO PROVIDED INFORMATION
   - Response to provided information such as data, graphics, or informational reading

Activity: Five Types of Open-Response Questions

On the Kentucky-Performance Rating for Educational Progress (K-PREP) tests, students will possibly see the five types of open-response questions described above.

☑ Your group will be given a set of cards containing the five types of open-response questions.
☑ Read the open-response questions on the following page and decide which type of question each is.
☑ Place the corresponding card on the “Type” line. You will use each card once.
☑ When the facilitator calls out an OR number, hold up your card.
OR #1

The students in Mrs. Spalding's class are planning a fall party. There are 29 students in the class. They have decided to have lemonade, orange soda, and colas to drink. They will give the first person lemonade, the second orange soda, and the next two students will receive a cola each. This pattern continues.

A. Create a table to show the Party Drink Pattern.
B. What will the 29th student receive to drink?
C. How many of each type of drink will they need (number of lemonades, number of orange soda, and number of colas)?
D. How did your table help you answer the question?

OR #2

To increase students’ endurance, your P.E. teacher has designed an exercise program to increase the number of jumping jacks your class will be doing each week. The first week the class will be doing 32 jumping jacks. The second week they will be doing 35, and the third week they will be doing 38.

If the pattern continues, what week will the class be doing 50 jumping jacks? Explain how you determined your answer.

OR #3

You want to find out how water temperature affects the movement of goldfish.

A. Write a hypothesis for your investigation.
B. Identify the variables you will control in your experiment and the variable you will change and explain why it is important to control variables?
C. Identify a problem in your life that could be solved using the scientific method.

OR #4

The map below shows several regions where major cities developed. Use the map to answer questions.

(Map would be provided)

a. Explain why these cities developed in these areas.
b. Identify two of the four cities by number and then discuss a major industry of each.

OR #5

There are many important issues facing the people of the United States today. Select two of the issues or problems from the list below and explain several ways that each issue could be addressed. Include in your explanation the important pros and cons for each.

- Budget Deficit
- Urban Development
- Pollution of the Environment
- Illegal Immigration
REFLECTION

Why is it important to have students work on all five types of open-response questions?

| REFLECTION |
| Why is it important to have students work on all five types of open-response questions? |

| TYPES OF SHORT-ANSWER QUESTIONS |
| Factual short-answer questions |

**Factual short-answer questions** ask the student to perform tasks such as describe, define, calculate, etc. They usually don’t require an explanation, but it doesn’t hurt to provide one to show a thorough understanding.

Verbs often found in factual short-answer questions include:

- Define
- Name
- Give
- Outline
- Identify
- Provide
- List
- State

**Interpretive short-answer questions**

Interpretive short-answer questions ask students to apply their knowledge. If the answer requires several sentences, it is important to plan the answer.

Verbs associated with interpretive short-answer questions include:

- Account for
- Discuss
- Explain
- Illustrate
- Distinguish
- Compare
- Contrast
- Describe
- Elaborate on

Some short-answer questions can be combined – factual and interpretive. In this case, usually the first part of the question is factual and the second part is interpretive.

**Other characteristics of short-answer questions:**

- Can begin with a brief prompt or stem
- Can be answered in about five minutes
- Can require an answer that includes phrases, a few sentences, a graph or chart, etc.
- Require concise, focused answers, yet thorough and complete
- Include direct questions
- Include specific problems
- Reduce the possibility of guessing
Activity: Compare/Contrast

Identify three similarities and three differences between open-response and short-answer questions. Then, with your small group, talk about the implications for instruction and assessment in your classroom/school/district.

**SIMILARITIES**

1. 
2. 
3. 

**DIFFERENCES**

1. 
2. 
3. 

**IMPLICATIONS FOR INSTRUCTION**

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**SHORT-ANSWER or OPEN-RESPONSE – WHICH ONE?**

When writing an assessment, an important question to ask is, “When should I use an open-response question and when should I use a short-answer question to assess a particular standard or target?” Here are some distinctions.

<table>
<thead>
<tr>
<th>Short-answer questions</th>
<th>Open-response questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Typically require students to recall, rather than recognize information.</td>
<td>✓ Require students to demonstrate and apply knowledge.</td>
</tr>
<tr>
<td>✓ Sometimes require students to apply knowledge.</td>
<td>✓ Usually take about 20 minutes to answer.</td>
</tr>
<tr>
<td>✓ Can usually be answered within five minutes.</td>
<td>✓ Address Bloom’s levels of applying,* analyzing, evaluating, and/or creating.</td>
</tr>
<tr>
<td>✓ Address Bloom’s levels of remembering, understanding, and/or applying.*</td>
<td></td>
</tr>
</tbody>
</table>

*Notice that students can apply knowledge through both short-answer and open-response questions.
**ACTIVITY: Short-answer or Open-response?**

With a partner, read the learning targets on the following page and decide whether you would write a short-answer or open-response question to assess it.

<table>
<thead>
<tr>
<th>STANDARD or LEARNING TARGET</th>
<th>Short-Answer or Open-Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Identify key details and examples in a text.</td>
<td>□ SA □ OR</td>
</tr>
<tr>
<td>2. Determine which kind of ratio is represented.</td>
<td>□ SA □ OR</td>
</tr>
<tr>
<td>3. Describe how a character changes over the course of a passage and identify the</td>
<td>□ SA □ OR</td>
</tr>
<tr>
<td>motivation for that change.</td>
<td></td>
</tr>
<tr>
<td>4. Explain how to calculate the area of rectangular shape.</td>
<td>□ SA □ OR</td>
</tr>
<tr>
<td>5. Illustrate and explain calculations by using written equations, rectangular arrays,</td>
<td>□ SA □ OR</td>
</tr>
<tr>
<td>and/or area models.</td>
<td></td>
</tr>
<tr>
<td>6. Analyze the effects of geographical location on the population of a city.</td>
<td>□ SA □ OR</td>
</tr>
<tr>
<td>7. Calculate unit conversions.</td>
<td>□ SA □ OR</td>
</tr>
<tr>
<td>8. List the text features used in an article.</td>
<td>□ SA □ OR</td>
</tr>
<tr>
<td>9. Define key vocabulary within context.</td>
<td>□ SA □ OR</td>
</tr>
<tr>
<td>10. Compare and contrast the portrayal of a time, place, or character (person) in an</td>
<td>□ SA □ OR</td>
</tr>
<tr>
<td>historical account to how each are portrayed or altered in a literary work.</td>
<td></td>
</tr>
<tr>
<td>11. Draw the water cycle.</td>
<td>□ SA □ OR</td>
</tr>
<tr>
<td>12. Extend a pattern.</td>
<td>□ SA □ OR</td>
</tr>
</tbody>
</table>

**NOTE:** Some of these targets could also be assessed by multiple-choice questions, but our focus today is on short-answer and open-response questions.

**WHAT, SO WHAT, NOW WHAT?**

1. The most important piece of information I learned (or was reminded of today was

2. That information is important because

3. Based on what I’ve learned or thought about today, I want to

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