

**Developing Quality Open Response Items for the Classroom**

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**Considerations for choosing the appropriate question type (OR or MC):**

**What is an Open Response question?**

An open response item is a question that requires students to both ***demonstrate content knowledge*** and to ***apply that knowledge in some way***. It is the ***application*** component of an open response question that distinguishes it from the more familiar essay or constructed response question. For all OR questions, content is the foundation of student answers. Students must demonstrate content knowledge in order to successfully support their answers to communicate clearly what they know and are able to do.

NOTE: Building (and monitoring) content knowledge is foundational to the Common Core.

OR items often allow for more depth of knowledge to be demonstrated than in MC items. Students can be asked to demonstrate more complex cognitive behaviors such as comparing, relating, analyzing, inferring, concluding, predicting, generalizing, solving and/or applying.

**Advantages of Open Response Items**

* OR items allow for more depth of knowledge to be demonstrated than do MC items.
* OR items allow students to demonstrate more complex cognitive behaviors, such as comparing, relating, analyzing, inferring, concluding, predicting, generalizing, solving and/or applying.
* OR items align for SMARTER balanced summary assessment design.

**Disadvantages of Open Response Items**

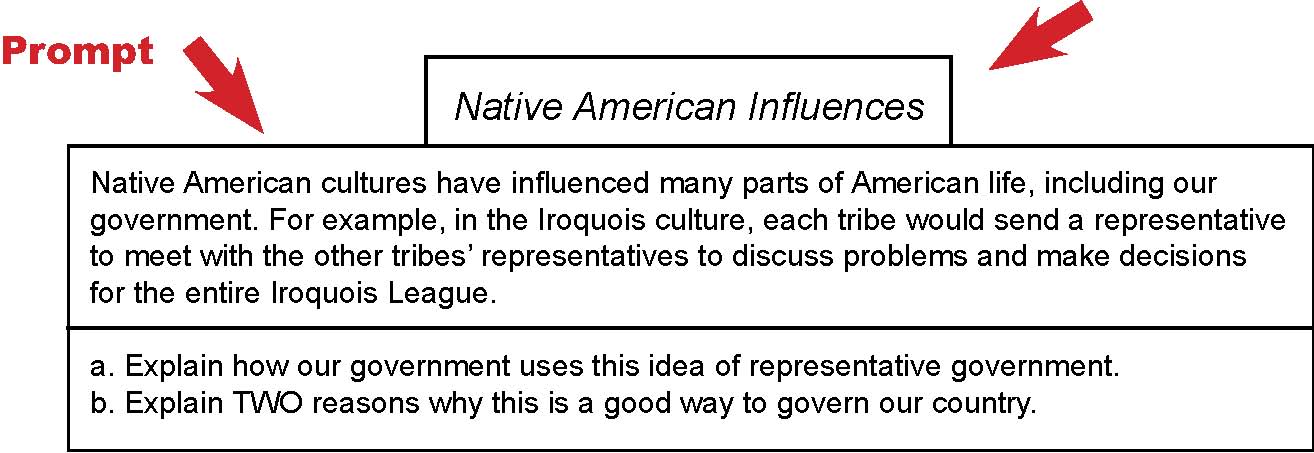
* OR items are more difficult and more time consuming to score.
* Because of the time required to answer them, there must usually be fewer open response items on an assessment than MC items. 
* Effectiveness of OR items is dependent on the scoring guide and answer information provided.

**Writing an Open Response Question**

This document primarily addresses SMARTER OR question development, for classroom use. Items that are developed ***must*** by definition be aligned to the Common Core State Standards. Items based on Core Content, Depth of Knowledge (DOK) or Cognitive Rigor ceilings are not an absolute limit for local assessment. Teachers are free to **exceed** the DOK ceilings for any Core Content for Assessment standard when developing items.

**Characteristics of a SMARTER open response:**

* Directly tied to one or more content standards in a primary content domain, claim and target.
* Consists of an item name, prompt and directions (question).
* **In general, an OR differs from an essay or short answer question in that it requires some component of application or analysis of content specific knowledge.**



**Item Name**

**Directions** 

* Specifies exactly what a student is required to do in order to achieve the maximum score. *No extension is required beyond what the question specifies.*
* Requires a student to
  + demonstrate **content knowledge**;
  + **apply** that knowledge; and
  + communicate an answer in a **written response**.
* Scored by the use of a question-specific rubric on a scale.
* OR questions may:
  + have a correct answer which students can determine and explain through a variety of methods or in varying degrees of correctness;
  + have multiple successful answers for which students must apply their analytical skills to a response;

or

* + combine requirements: one part requires a student to provide a single correct answer and a subsequent part asks the student to extend his/her knowledge in another way, such as applying the knowledge to another situation or by predicting an outcome.

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| **Essay Question** | **Open Response Question** |
| Assesses content knowledge only | Assesses content knowledge and application |
| List and describe the three steps of the water cycle.   |  |  | | --- | --- | | **NAEP extended-response** | **Open Response Question** | | Open-ended parameters:  What exactly is meant by ‘evaluate’? | Assesses content knowledge and application | | UNION AND CONFEDERATE RESOURCES (as percentages of total United States resources)  Resource North South Population 71% 29% Railroads 71% 29% Farm acreage 65% 35% Factory Workers 92% 8%  Use the information in the table above to evaluate the statement, “The South could never have won the Civil War.” | The Union and Confederate states had significant differences in the resources available to them during the Civil War.  UNION AND CONFEDERATE RESOURCES (as percentages of total United States resources)  Resource North South Population 71% 29% Railroads 71% 29% Farm acreage 65% 35% Factory Workers 92% 8%  A. Choose two of the resources listed and describe  why they were important.  B. Explain what advantages an abundance of those  resources would have provided during the Civil  War. | | John’s class is studying the water cycle by observing a sealed jar of water on the windowsill.  A. List and describe the three steps of the water  cycle.  B. Choose one of these steps and predict how  John might see it occurring inside the jar. |

**The five basic Open Response question types:**

**1. Scaffolded questions**

Scaffolded questions have multiple parts, with each question or direction the student is to address presented and labeled separately (e.g., A, B, C). The order is arranged so that successive questions depend upon the response to the previous question. Often, each part becomes increasingly more difficult or complex.

**Scaffolded Question Example**

The framers of the U.S. Constitution wanted to prevent the new federal government from becoming

a dictatorship. To keep the government from becoming too powerful, they divided its powers among

three branches.

1. For each of the three branches of government identify one power given to it by the Constitution.
2. Explain why each power you identified in part A is as important to our system of government.

Support your answer with real-life examples.

*(Note: answering part b of this question requires that the student be able to list branches of government in part a.)*

**2. Single Dimension/Component questions**

Single Dimension/Component forms ask a straight-forward question which requires explanation, examples, description or evidence as support.

**Single Dimension/Component Example**

Rivers provide several advantages to cities. Many cities are located near large rivers.

Describe three important advantages that the rivers provide these cities. Explain why each advantage

is important.

**3. Two or More Relatively Independent Components questions**

Two or More Relatively Independent Components are signaled by A, B, C parts. The parts may be about the same prompt but have little relation to each other in that a correct response to one question is not dependent upon the response to the other questions.

**Two or More Relatively Independent Components Example**

Fossils provide important clues about things that have lived in the past.

1. Describe two ways that fossils can form.
2. Explain one way that fossils can help us understand how living things have changed over time.

*(Note: answering part b of this question does not require the student be able to successfully answer part a.*

*The reverse is also true.)*

**4. Student Choice: Topics/Options Provided questions**

Student Choice with provided topics or options that force students to choose from the selections. They offer students more opportunities to demonstrate their individual learning, but may provide more scoring difficulty because there are many more “correct” answers.

**Student Choice Example**

Some of Earth’s materials are listed below

soil water gases of the atmosphere rocks

A. Choose TWO materials from the list. Explain how a PLANT uses each of these materials to live.

B. Choose TWO materials from the list. Explain how an ANIMAL uses each of these materials to live.

**5. Response to Provided Information questions**

Students must be able to manipulate raw materials such as data, readings or graphics in order to respond

to specific questions. This question type is combined with another type of question. In the example below,

the student is responding to a text passage, but the question is scaffolded as well.

**Response to Provided Information Example**

*Note: the student was required to read a text passage before completing this question*

In the story “First Light,” Matthew woke up in another time period, the 1850s.

1. Describe FOUR things Matthew discovered that were different from what he was used to in his present life.
2. Explain how EACH of those differences affected him. Use information from the story to support your answer.

**Developing a Scoring Guide**

Scoring guides are sets of criteria which describe the characteristics of responses at each identified level.

They provide the tool necessary to accurately evaluate student success for each individual question.

Scoring guides are developed following the actual writing of the question. This will allow the teacher to

dis­cover potential problems with the question. Constructing the scoring guide will also help ensure that the ques­tion is rich enough to support various levels of student responses.

**A scoring guide should:**

* Include a clear explanation of what is expected in a quality student response.
* Define the various levels of possible student responses and place a value on each level. If there is more than one way a student may achieve a given score level, the scoring guide should include those different possibilities.
* Enable scoring to be consistent, accurate and as objective as possible. The scoring guide should provide a scorer with the details necessary to score a response.
* Use simple language and repeat significant descriptive words used in the question.
* Ensure that what is required for a top-level response is clearly indicated in the description.

**Establishing the parameters**

The first step in designing the scoring guide is to determine what a top-level response should say. In other

words, what is the expectation for a response that fully and completely answers the question? If answering

the question well is difficult for the teacher, is the question itself a reasonable task for students? The question

should be revised if you cannot answer it in writing yourself.

The next step is to write descriptions of each of the other levels. While there is no perfect formula for distinctions between levels, there should be appropriate and sequential differences between levels. A good scoring guide helps make the scorer’s task easier by clearly stating the differences between levels in discernible and important ways.

Sometimes these distinctions will include quantity indicators. For instance, if the question asks for three

examples, a response with two well-defined examples might receive a score of three if you are using a

four-level scoring guide. Simple numerical indicators should not be the only difference between levels; quality of work must also be considered.

Common descriptors used to distinguish the four performance levels are listed below.

* The top or four level of a scoring guide may typically characterize responses as effective, thorough,

complete, successful, insightful, in depth, efficient and/or sophisticated.

* A level three response will usually use terms such as adequate, satisfactory, understanding of major concepts, completes most and/or clear.
* A response of level two will often be described as having gaps or leaps, incomplete, some important points, demonstrates basic understanding and/or some errors.
* Responses receiving a one are typically labeled as minimal, completes only small part, little understanding, not logical, unclear and/or major errors.

**Classroom Practices for Improving Student Responses**

It is important for teachers to remember that the SMARTER Balanced Assessment is a test of content knowledge and process skills. ORs are designed to assess what students know about the content they have studied and demonstrate/apply learning. While coaching students on the technique of answering ORs may help them to perform better, endless practice on questions that are unrelated to the concepts being studied in their classes is of dubious value. No amount of practice answering questions can substitute for a lack of content instruction. When practicing ORs with students, teachers should be careful not to emphasize technique at the expense of content.

Best practice in coaching students to perform well would be to practice using well-written questions that

assess the concepts being studied at the time, not merely answering randomly chosen released items

administered on a rigid schedule. High-quality student practice is essential: quality of practice is far more

valuable than quantity of items answered.

Teacher demeanor while practicing open response questions is critical. Students need to believe it matters to their teachers that they do well. Try to be positive, encouraging and upbeat when working on open response skills. Students will value learning this skill only if they are convinced teachers value it as well.

**A multi-day classroom model for coaching students:**

This is a framework for working with students to increase their skill in answering OR questions that is

prac­ticed in some form by many schools.

**First**

o     **Choose an open response** from your current instructional unit that reinforces the critical concepts or essential questions the unit is framed around. The open response should require both content knowledge and ask students to apply or analyze that knowledge.  It should also be one that supports a richness of discussion, both in content and practice.

If there is a reading passage, read it with the students.

* **Read the question.** Discuss the wording of the question and ask the students to tell you what it actually requires them to do. Model your thinking as you do the same.

If the question requires listing items from the text, ask students to give examples. List all responses on the board, including some you know are incorrect. When all examples are listed, ask the class to examine the list and decide which responses don’t really relate to what the question asks. Cross those responses off the list and explain why. Make sure that this discussion is grounded in the content of the question and not just about the techniques of constructing a response.

* **Discuss the rubric** with the class. Discuss what it would take to make a 3 or 4. Point out the important words in the 3 or 4 descriptors (several, detailed, complete, 3 or more). Continue to model your thinking as you work through this process. You may also choose to allow the class to construct their own rubric through a similar discussion process.
* **Have students write a response** without assistance. Collect the responses. After collecting student responses, review them and choose a few samples to discuss the next day. Choose a variety of responses that includes at least one high-scoring example and several that need improvement. Make them **anonymous** by retyping them or concealing the names. Use a large font and make either overhead transparencies or save a document to display on a projector or TV if available. Sharing photocopies of student responses is another option.

**Second**

* **Hand back the student responses.** Explain to students they are going to discuss some responses by their classmates and evaluate them according to the rubric. If you use actual examples from your current students you may want to caution them not to call out if they see their own.
* **Share a student response.** Ask the class to read it and score it according to the rubric. Read the response aloud if appropriate. Select students or solicit volunteers to justify their scores by comparing the response to the rubric.
* **Have a class discussion** on how to improve the answer. Frequently refer students back to the rubric as they make suggestions. Be sure to point out and correct any content misconceptions present in the sample responses.

After the class has revised the first sample response, repeat the process until all of the samples have been reviewed.

* **Have students correct their own responses** by following the same process. Collect the responses again.

**Finally**

* **Hand back the student responses** with students arranged in groups of 3 or 4.
* **Have students read the responses of the other students** in the group and make suggestions for improvement. Remind students they are not to make direct corrections on someone else’s paper.
* **Collect them again** after all group members have reviewed every response and have had an opportunity to make additional corrections based on peer feedback.

*Note: peer review time can possibly be decreased as students become more skilled at correcting their own responses.*

* **Read the finalized responses** and assign them a score. Work individually with any student not scoring at least a 3 until his/her response reaches that level or higher.

Note that in this model students do not receive a score from the teacher until after they have had multiple op­portunities to revise their answers. This framework gives students the opportunity to recognize their errors, and to learn from the good examples of others. This is formative assessment in practice.

As the year progresses and students become more adept at answering questions the process can be

streamlined or shortened, perhaps by scaling back on either the peer review or whole-class review portions of

the discussions.

Students might find it helpful to have a working folder of open response items which contains all drafts of

their responses. This will allow them to demonstrate their growth over time.