

CONSTRUCTED-RESPONSE ITEMS

NARRATOR'S SCRIPT

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INTRODUCTION AND PURPOSE

The focus of this module is constructed-response items.

By the end of this module, you should be able to define what a constructed-response item is, identify the benefits and challenges that constructed-response items present, know the four parts of a well-designed constructed-response item, and use the assessment blueprint to design assessment items.

KEY CONCEPTS

Types of Assessment Items

Now, let's get started with a quick review of the three types of assessment items.

We can categorize assessment items into three types: selected-response items, constructed-response items and performance tasks.

Selected-response items ask students to select the correct answer from a list of options included in the item.¹

Performance tasks ask students to create products or perform tasks to show their mastery of particular skills.²

¹ Kansas State Department of Education, "Assessment Literacy Project"; Ohio Department of Education, "How to Design and Select Quality Assessments"; Relay Graduate School of Education, *Designing and Evaluating Assessments* (2014); and Rhode Island Department of Education, "Deeping Assessment Literacy."

² Ibid.

Constructed-Response Items

Constructed-response items are the focus of this module. They ask students to write, or “construct,” the correct answer. We use answer keys to score simpler constructed-response items, such as fill-in-the-blank items. We use scoring guides to score more complex constructed-response items, such as short- and long-answer items.³

Constructed-response items offer some benefits that selected-response items do not. For example, they are less susceptible than selected-response items to error from guessing because students have to generate an answer versus selecting it from a list of potential answers. It is also easier to assess higher-order thinking skills with constructed-response items than it is with selected-response items.

However, depending on the type of constructed-response item, they can take longer to score.

How to Design Constructed-Response Items

We will now describe in detail how to design constructed-response items. We can apply these steps to write and select most types of constructed-response items, such as short-answer items, fill-in-the-blank items and short essays.

A typical constructed-response item contains four parts: An item number, directions, a prompt and response space. Some constructed-response items also include a scoring guide.⁴

Let’s use examples to describe how you can develop each of these parts so that the item, as a whole, is well designed.

Item Number

An *item number* orients students to where the item fits within the assessment.⁵

The best practice for this part is self-explanatory: You should number each item.⁶

Directions

Directions provide students with instructions about how to answer the item.⁷

They should include how long students have to answer the item and how many points the item is worth. For example, “Spend about 5 minutes on the item below (3 points)” or “Spend 10 to 15 minutes on all items in this section. (Items are worth 2 points each.)”⁸

³ Ibid.

⁴ Relay Graduate School of Education, *Rules for Multiple Choice Item Design* (2013).

⁵ Ibid.

⁶ Ibid.

⁷ Ibid.

⁸ Ibid.

Prompt

The *prompt* asks the question or describes the task.⁹

Prompts should make clear to the students what they are supposed to do. If you use a vague prompt, you may not measure what you intend to measure.¹⁰

For example, what is vague about this prompt, and how might we improve it?¹¹

Fill in the blank (1 point):

In 2009, _____ became the president.

Pause this video if you want a few moments to think about your answer or discuss it with colleagues.

The prompt is vague because president is a vague term. The term “president” could refer to a business, a non-profit, a city council, a school board or a country. We can revise the prompt to make the meaning of “president” clear.

In 2009, _____ was inaugurated president of the United States of America.

Let’s try another example.

What does the term mammal mean? (3 points)

How might we make the prompt in this item clearer?

The original item leaves open the possibility of a wide variety of answers from students. We can make this prompt clearer by asking students what we want to know, which is whether they can list the characteristics of mammals. For example, a revised prompt might read:

Name three characteristics of mammals.

Response Space

Finally, the *response space* should be adequate for students to record their answers.¹²

How to Score Constructed-Response Items

Ideally, you will develop a well-designed scoring tool while you are developing each assessment item.

⁹ Ibid.

¹⁰ Ibid.

¹¹ Relay and J.H. McMillan, *Classroom Assessment: Principles and Practice for Effective Standards-Based Instruction* (2011).

¹² Relay Graduate School of Education, *Rules for Multiple Choice Item Design* (2013).

We typically use answer keys and scoring guides to score constructed-response items.

Answer keys provide the correct answer to an assessment item.

Scoring guides assign points to different levels of student performance. Well-designed scoring guides reference the standards and/or skills addressed by the item, and they include an exemplar answer. The module about scoring includes more information about well-designed scoring tools.

How to Use the Assessment Blueprint

Let's use the assessment blueprint and assessment blueprint example to apply what we've learned.¹³

Imagine that you are a fifth-grade teacher planning a unit focused on reading and writing about informational texts. You expect the unit to last approximately four weeks.¹⁴

At the end of the unit, you plan to use a summative assessment to measure how well your students have mastered the relevant standards.

You have determined that the unit will focus on four reading informational text standards and one writing standard. You have "unpacked" the standards to identify and paraphrase the skills you plan to teach and assess. You have also identified a level of rigor for each item and possible types of items you may use to assess each skill.

You have written one selected-response item to address a single skill.

Let's say that you want to address with your second assessment item three skills associated with reading informational text standards 1, 2 and 8:

- Quote accurately from the text (explicitly and when making inferences).
 - Identify main ideas and how key details support them; and
 - Explain how the author uses evidence to support his or her claims.
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You decide to write a short-answer item that requires lower- and higher-level thinking and is worth 12 points.

¹³ Adapted from Ohio Department of Education, "Assessment Literacy: Identifying and Developing Valid and Reliable Assessments" (2013).

¹⁴ Ohio Department of Education, "Ohio's New Learning Standards: English Language Standards" (2010); Student Achievement Partners, "Mini-Assessment for *Who Was Marco Polo?* by Joan Holub and *The Adventures of Marco Polo* by Russell Freedman" (2014).

The next step is to write the actual item, which includes developing all parts of the item and a scoring tool.

Here's an item from the assessment blueprint example:

The prompt reads:

The text Who Was Marco Polo? gives reasons that Marco Polo may have been truthful in his book and also gives reasons that he may not have been truthful. The headings in the chart below list these two ideas. Complete each row of the chart by writing facts and details from the text to support each idea. The first row has been done for you.¹⁵

The scoring guide assigns:

3 points when a student completes all four cells of the chart with facts and details from the text that effectively support the relevant idea, that is, that Marco Polo may or may not have told the truth in his book.

2 points when a student completes all four cells of the chart but uses facts and details from the text that only partially support the relevant idea OR the student effectively writes facts and details from the text to support each idea but completes only two or three cells of the chart.

1 point when a student completes only one or two cells of the chart OR the student uses facts and details from the text that are only tangentially related to the relevant idea.

0 points when a student leaves the item blank or does not incorporate any facts or details from the text.

The scoring guide also includes potential exemplar responses with rationales.

This well-designed item illustrates the concepts we discussed in this module. It contains all of the parts of a constructed-response item. The prompt is precise, and the item includes a well-designed scoring guide that is aligned with the skills you plan to measure.

CHECK FOR UNDERSTANDING

We have addressed the key concepts in this module, so let's review our goals.

At the outset of this module, we set goals that you would be able to define what a constructed-response item is, identify the benefits and challenges that constructed-response items present, know the four parts of a well-designed constructed-response item, and use the assessment blueprint to design assessment items.

¹⁵ Student Achievement Partners, "Mini-Assessment for *Who Was Marco Polo?* by Joan Holub and *The Adventures of Marco Polo* by Russell Freedman" (2014).

Although we cannot check to determine whether we have met all of our goals, let's use two assessment items to see how we did with a couple of them: knowing the four parts of a well-designed constructed-response item and identifying the benefits and challenges that constructed-response items present.

Here's the first item:

A well-designed constructed-response item usually contains four parts: an item number, directions, a prompt and response space. It is good practice for the directions to include both BLANK and BLANK.

Pause this video if you want a few moments to think about your answer or discuss it with colleagues.

A sample answer to the first item would be: A well-designed constructed-response item usually contains four parts: an item number, directions, a prompt and response space. It is good practice for the directions to include both *how long the student should spend on the item* and *the number of points the item is worth*.

Here's the second item:

Describe one benefit and one challenge of constructed-response items.

Pause this video if you want a few moments to think about your answer or discuss it with colleagues.

A sample answer to the second item would be: Constructed-response items are less susceptible than selected-response items to error from guessing because students have to generate an answer versus select it from a list of potential answers. However, depending on the type of constructed-response item, they can take longer to score.

CONCLUSION

Good work! Thank you for completing the module on constructed-response items. Please view additional modules to continue your learning.

SOURCES

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