PPAT® Assessment

Library of Examples – Science

Task 2, Step 3, Textbox 2.3.1: Reflecting on the Assessment for the Whole Class

Below are two examples of written responses to Textbox 2.3.1 as excerpted from the portfolios of two different candidates. The candidate responses were not corrected or changed from what was submitted. One response was scored at the Met/Exceeded Standards Level and the other response was scored at the Does Not Meet/Partially Met Standards Level. This information is being provided for illustrative purposes only. These excerpts are not templates for you to use to guarantee a successful score. Rather, they are examples that you can use for comparison purposes to see the kinds of evidence that you may need to add to your own work.

The work you submit as part of your response to each task must be yours and yours alone. Your written commentaries, the student work and other artifacts you submit, and your video recordings must all feature teaching that you did and work that you supervised.

Guiding Prompt for Task 2, Textbox 2.3.1

a. How will your data analysis inform or guide future instruction for the whole class?

b. What modifications to the data-collection process would you make for future use? Provide a rationale.

c. What modifications to the assessment would you make for future use? Provide a rationale.

d. In what ways would an assessment that is different from the type used in this task allow students to further demonstrate their achievement of the learning goal(s)?

Example 1: Met/Exceeded Standards Level

a. I believe a correlation can be drawn between student improvement on unit identification from pre- to post-assessment and their marked improvement (29%) on F=m*a calculations, as a solid understanding of a variable's units will illuminate how these variables interact in the equations. That being said, the most common errors were on question 7, which was an F=m*a calculation. Instead of a word problem, it presented students with a visual of two force-mass interactions and asked them to compare the accelerations. Both the overall improvement and the challenges of question 7 indicate that future instruction should continue to emphasize the necessity of understanding what units are actually describing. To accomplish this, I will look to provide students with more tangible and memorable analogies for physics variables. For example, as we begin investigating the electromagnetic spectrum, I can use musical instruments to cement the idea of frequency, or videos of tsunami waves for amplitude. If students have vivid mental imagery to reference, units and variables should have real meaning as students are performing calculations.

b. I would not make modifications to the data-collection process for the assessment. It was efficient, provided insightful data on both individual and overall performance, and delivered actionable intelligence on how future lesson planning and strategies can better meet student learning needs. It allowed me to quickly evaluate student achievement, and engage students in analyzing and understanding their progress toward the learning goals. One modification I would make is more formal formative data collection leading up to the assessment. There is no such thing as too much information when it comes to monitoring student growth and progress, and having more formative data points could have resulted in an assessment more closely tailored to student learning needs.

c. When designing the assessment, I sought to assess all four learning goals relatively evenly. Based on the collected data, especially overall performance on question 7, I believe in future this assessment could more thoroughly evaluate student progress on learning goal 3. Reducing the number of unit matching questions and increasing the number and type of F=m*a calculations would provide clearer insight into student understanding of how the variables of motion relate to each other. More than a simple understanding of the variables in the equation, students need to know how to manipulate and apply F=m*a to a host of scenarios in order to achieve a true and lasting understanding.

d. A different assessment that could allow students to demonstrate their achievement of the learning goals might be a performance assessment in which students created something tangible and described the physical variables affecting its motion. One lesson activity had students build paper rockets that were launched via air cannon. This was a participation activity meant to engage students in the lesson and catalyze their thinking about Newton's 2nd Law of Motion, but it also could have been used as an assessment. After their initial launch, I could have formalized the process of students explaining design changes that would cut down on drag, improve flight stability, and decrease mass. They could also detail the net forces acting on their rocket at various points throughout its ballistic trajectory. A performance assessment such as this would cover all learning goals, and further extend student thinking into how the topics we covered during the lesson apply to real-world scenarios.

Refer to the Task 2 Rubric for Textbox 2.3.1 and ask yourself:

In the candidate's reflection on the assessment for the whole class, where is there evidence of the following?

- How the data analysis will inform future whole-class instruction
- A rationale for how the data analysis will inform future whole-class instruction
- Necessary modifications to the data-collection process in the event that the assessment is administered again
- A rationale for the modifications to the data-collection process
- Consideration of a different assessment that will allow students to demonstrate their achievement of the same learning goals

Why is the candidate's reflection substantive?

Example 2: Did Not Meet/Partially Met Standards Level

a. My data analysis will allow me to see what I needed to focus on more. For example, my students struggled when it came to ordering the planets according to size. I could add a more hands on activity, or present more visuals so my students can fully understand this concept.

b. The method for data collection was efficient, and I would use it again.

c. I would however make adjustments to my assessment. Instead of a total free response, I would include a few multiple choice and some fill in the blank. Some of my students struggled with recalling some of the material. They knew it, but they couldn't quite get it down unless they were prompted.

d. Another assessment I could have used would be a performance assessment. I could have had pictures of the planets, and the students would have to put them in the correct order. This would have showed me that the students know what each planet looks like, and where they are in the solar system.

Refer to the Task 2 Rubric for Textbox 2.3.1 and ask yourself:

In the candidate's reflection on the assessment for the whole class, where is there evidence of the following?

- How the data analysis will inform future whole-class instruction
- A rationale for how the data analysis will inform future whole-class instruction
- Necessary modifications to the data-collection process in the event that the assessment is administered again
- A rationale for the modifications to the data-collection process
- Consideration of a different assessment that will allow students to demonstrate their achievement of the same learning goals

Why is the candidate's reflection minimal?

Suggestions for Using These Examples

After writing your own rough draft response to the guiding prompts, ask the question, "Which parts of these examples are closest to what I have written?" Then read the 4 levels of the matching rubric (labeled with the textbox number) and decide which best matches your response. Use this information as you revise your own written commentary.

Lastly, using your work and/or these examples as reference, consider what you believe would be appropriate artifacts for this textbox.