

## PPAT® Assessment

### Library of Examples – Business, Industrial, and/or Technical Education

#### Task 3, Step 3, Textbox 3.3.1: Analyzing the Instruction for the Whole Class

Below are two examples of written responses to Textbox 3.3.1 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 3, Textbox 3.3.1

- To what extent did the lesson, including instructional strategies, learning activities, materials, resources, and technology, help to facilitate student learning? How does the evidence you collected support this finding?
- How did the students use the content presented to demonstrate meaningful learning? Provide specific examples from the lesson and from the student work to support your analysis.
- While you were teaching, what adjustments to the lesson did you implement for the whole class to better support student engagement and learning? Provide examples to support your decisions.
- What steps did you take to foster teacher-to-student and student-to-student interactions? How did they impact student engagement and learning?
- What feedback did you provide during the lesson to facilitate student learning? What impact did the feedback have on student learning? Provide specific examples.

#### Example 1: Met/Exceeded Standards Level

a. I believe my instructional strategies were quite effective due to the fact that every student, even my students who struggle the most, successfully produced a model of a container and a

manufacturing process for said model. Now, not every student produced a complex or fancy design of a container, but that was to be expected, as I knew my students all had a range of abilities with computer aided design modeling software. The more advanced the container, the more of an understanding of the software a student has. As for the learning activities, I believe the model-making and manufacturing-process-making for a container were effective ways to help students learn these skills because a container is a relatively "simple" object to make, and once students got started on their own designs, I believe they felt the same way. After my given instruction, students were able to work on these activities on their own with a few requests for help here and there. As for resources and technology, I use a wonderful CAD software for novice model-makers because there are many resources out there that students can use for help. For this lesson, the CAD software performed smoothly for all students, and less than 15 questions were asked in the full 90 minute period. In my opinion, students learn best when they have tools that work properly and smoothly, so I was happy with the results and that it brought no frustrations for this lesson. The evidence I collected from this facilitation of student learning was simply the tally of number of questions that were related. For example, one student asked, "Where can I find the Fillet function?". Another student asked, "How can I change my tool size?", which is another software related question.

b. Students demonstrated meaningful learning by their productions of their container models and manufacturing processes. As one can see in my StudentWorkSampleforTask3 artifact, this student has shown that he is capable of producing a model of a container that shows his creativity and ability to use the CAD software. He also shows in the second and third page that he is capable of producing an accurate manufacturing process, where all of the blue lines represent the path the cutting tool takes to cut out the shape of the container. I collected these models and manufacturing processes as a way to measure student learning, and every student was able to turn in some form of each, again, depending on the level of understanding. As for the orthographic drawings, this student did not submit them because I did not assign him that extra rigor task.

c. While I was teaching, the adjustments I had to make were primarily in my introduction section of the lesson. While I was showing students how to make a model of a container, students requested me to repeat specific steps, as there were some confusions brought up. Specifically, students did not understand how to create a lip on their containers, or why they needed the lip in the first place. To adjust my lesson plans, I simply demonstrated how to add the lip feature to their models with the "Offset" function within CAD's Sketch function. While demonstrating, I made sure to have check-ins with the students who were following along with me. I did this because I didn't want to repeat myself multiple times. As for answering the question of why students needed a lip on their designs, I showed students a physical model of a box I made as an example. I showed them how the two pieces (lid and base) joined together and did not slide apart due to the lip they each had on them. After showing students this physical model and the lip feature students were successful in working on their own. Another adjustment that I had to make for my lesson was the choosing of who would be providing the orthographic drawing files. Initially, I had a few students that I planned to give the extra task to, but I had to select a few less students due to time constraints. Specifically 3 of the 11 students that I chose to give the extra rigor to were unable to finish those drawings due to lack of time. These 3 students ran into unexpected struggles within the model-making process, which caused them to fall behind time-wise. I did not penalize them for not completing the drawing files, as they were working diligently and created adequate models/containers.

d. The steps that I took to foster teacher-to-student interactions were first off to make myself (and the projector screen) as visible as possible so that students could easily see what I was doing and how I was doing it. Demonstrating processes for students is a primary example of a task that I had to perform numerous times within this lesson. I make it clear to students that I do not do tasks for them, but rather show them how to do them on their own. The other step I took to foster teacher-to-student interactions was to make myself available to all students who request help. Sometimes it can be hard to be in 50 places at one time, but I try to do my best. With this being said, this is one way I also foster student-to-student interactions. By seating students in a way where one has a strong understanding of the software and another struggles, the struggling student can often ask the strong student for help, rather than asking me. This can be a huge help for me, because I cannot reach all students who request help at the same time. When students teach other students, I believe the taught students feel less pressured/confused by the content and are able to perform better, while the teacher-student learns the content a little more. Another step that I took to foster student-to-student interactions was to allow students to have similar designs with their containers. This does not mean they can have the exact same container, but similar ones. This helps because if a student who is struggling with their design asks a stronger student, they can get more accurate help.

e. The feedback that I gave students came primarily in the form of visual checks and suggestions while students were working on their models/manufacturing processes. At the beginning of the lesson, I informed students that they needed my approval of their models before they could begin working on their manufacturing processes. As students finished their models, they called me over to their computers to check their progress. If students still needed some work on their models, I provided them specific help as to how to fix it. If students provided me a functional model, I commended them on their work, and instructed them to move onto the next step. I repeated this form of feedback for the manufacturing processes as well, before students were able to move onto the physical production of their containers. As for the last form of feedback, when students finished producing their containers, I checked them for how accurate they resembled the model on the computer, and informed them of how any errors were produced. Errors came in the form of rounded edges, miscalculated heights of removed material, or repetition of producing the lid/base (where students produce two lids or two bases instead of one lid and one base). The feedback provided throughout this lesson helped aid student learning by allowing students to understand their mistakes within each process of making their container.

**Refer to the [Task 3 Rubric](#) for Textbox 3.3.1 and ask yourself:**

What evidence does the candidate provide to show how each of the following impacted student engagement and learning?

- Instructional strategies, learning activities, materials, resources, and technology
- Students' use of content
- Adjustments made to the Lesson
- Teacher-to-student and student-to-student interactions
- Feedback provided to students during the lesson
- Why is the analysis of instruction for the whole class thorough?

## Example 2: Did Not Meet/Partially Met Standards Level

- a. The lesson helped facilitate student learning by getting the students engaged and passionate on their design for the clock face. I believe that the students enjoyed designing their own clock face and the students put in a lot of effort in making a quality design for their clock face.
- b. The students used the content to demonstrate meaningful learning completing their individual assignments. Each student completed their own clock face design but were able to work with the other students in the class to either get ideas on the clock face and work together to complete the clock.
- c. During my lesson, I changed the amount examples that I showed the students of clock faces. After showing the students a few of the designs the students had questions about possible designs that they might want to see. I was able to pull up more examples from years past to show those students designs that they were wanting to possibly do.
- d. The steps that I took to foster teacher to student interaction were to walk around the room and monitor the students work. That way I am right there to answer any questions that the students might have as well as see how far the students are and see if I need to give them more time in class to complete the assignment. For student-to-student interactions, I encouraged for the students to work with each other to complete their clocks. I only requested that the students not make the same clock face as another student.
- e. I gave the students feedback during the lesson by giving constructive criticisms. I monitored their work during class by walking around the room and monitor the students' work. The feedback I gave the students on their ideas and challenged them to use their creativity and be passionate about their drawing. I also gave students feedback on the assignment they turned in. Here is a copy of a students work

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- Adjustments made to the Lesson
- Teacher-to-student and student-to-student interactions
- Feedback provided to students during the lesson
- Why is the analysis of instruction for the whole class incomplete?

### 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.