

TASK 2: INSTRUCTION COMMENTARY

Respond to the prompts below (**no more than 6 single-spaced pages, including prompts**) by typing your responses within the brackets following each prompt. Do not delete or alter the prompts. Commentary pages exceeding the maximum will not be scored. You may insert **no more than 2 additional pages of supporting documentation** at the end of this file. These pages may include graphics, texts, or images that are not clearly visible in the video or a transcript for occasionally inaudible portions. These pages do not count toward your page total.

1. Which lesson or lessons are shown in the video clip(s)? Identify the lesson(s) by lesson plan number.

[Lesson one is shown in the video clips. It includes a combination of whole group instruction as well as small group discussion and guidance during independent practice time. In the first clip, the class participates in the lesson through guided instruction. In the second clip, students work with their partner to construct the staircase using unifix cubes. They record their results independently.]

2. Promoting a Positive Learning Environment

Refer to scenes in the video clip(s) where you provided a positive learning environment.

- a. How did you demonstrate mutual respect for, rapport with, and responsiveness to students with varied needs and backgrounds, and challenge students to engage in learning?

[I know that without a positive learning environment, student-learning remains at a minimum. The integration of mutual respect, natural and positive rapport, responsiveness to students, and personal engagement allows students to focus on the academic challenges they face without fear of failure and with a determination to gain knowledge. Within the video clips shown for lesson one, mutual respect and positive rapport are demonstrated at multiple points. I refer to the students as *friends*, a term that has meaning for these children as they develop relationships with others (0:01, 0:32, 1:04). This also highlights the sense of community I try to create in the classroom - the understanding that this is a safe space to explore and learn, as we are all friends. Built upon this understanding, students also know that it is completely acceptable to make mistakes when they try their best, and that perseverance is an important part of the learning process. Students have internalized our positive attitude mantra: *Try, try again!* (2:52). By reminding students of the expectations in class without singling out individuals I maintain the positive, yet structured learning environment. During whole group instruction I commend students on their “super good listening skills” (1:47), check for proper sitting positions (3:53), choose a helper based on the qualities of showing respect to friends around them and the teacher (4:05), have students pat themselves on the back for participating in the learning (5:27), and thank the students for showing respect (6:40). Having this mutual respect and rapport with students allows for instruction to be delivered in an organized manner while students feel supported, not judged. During the independent practice time, students are exploring their own ideas on how to best complete the task of constructing the staircase. I encourage student effort and exploration, including the possible incorrect answers. When a student changed his answer after understanding his construction was not conducive to the goal of the staircase, I explained that I liked how he showed more than one way to create three (12:07). This praise highlights his effort throughout the process, not just the correct end result. Getting excited about learning allows students to feed off of this energy. When speaking to a student pair that was focused on the task I exclaimed, “Wow, look at you guys go!” (12:15). After discussing some of the changes to their staircase, I commended the effort once again by saying they were using “super computer brain power,” as we often refer to our brains as super computers (13:33). At the end

of this discussion both boys said that they loved doing this math (13:49). This positive rapport and mutual respect makes mathematics fun, fueling the desire for learning.

I demonstrated responsiveness to students while challenging them to engage in the learning throughout the lesson as well. Through different forms of discourse, students were engaged, even if not chosen to come be a *helper*. Counting together out loud helped reinforce the number sequences as well as allow each student to speak (0:18, 0:46, 4:49, 7:09). Asking questions throughout the lesson also engaged students to think actively about the problems being presented. Open-ended justification questions encouraged critical thinking within the whole group instruction as well as independent practice: “Who can tell me how we will know which one is four?” (6:02) “What should we do to 5 to make it 6?” (14:55). To support students’ confidence and acceptance of failure, I encouraged participation and telling students that I like when they tried their best (5:14, 5:17). All of these interactions helped support student engagement and comfort in a positive learning environment.]

3. Engaging Students in Learning

Refer to examples from the video clip(s) in your responses to the prompts.

- a. Explain how your instruction engaged students in developing understanding of mathematical concepts.

[Throughout my instruction, I engaged students through different mediums to develop an understanding of the central focus, counting. To introduce the lesson, we reviewed the numeral cards of numbers we learned about previously (0:46). Utilizing this knowledge, the game “Miss Davis Says” was introduced, which assists students in the development of number recognition and understanding the connection between counting and cardinality (1:40). This total physical response activity allows for kinesthetic learners to absorb the material better. During this activity, when miscounting occurred, I reminded students that “if we go up too many, that’s a different number” (2:43). This honed in on the concept that the last number name tells the number of objects, or in this case, movements counted. During whole group instruction, all students were maintained as important parts of the lesson by participating, even if not called on specifically to work on the Promethean Board or in front of the class. Students were engaged through counting out loud on multiple occasions and showing different ways to make a number using their fingers (4:49). I repeated that there are multiple ways to construct numbers and show the same quantity through different arrangements. I asked students to “show me four with [their] hands; remember, there are lots of ways we can show four” (4:54). Using whole group responses, students were constantly participants in discovering the learning concepts. Continuing to foster this positive and engaging learning environment, I encourage students to *check by counting*. This allows the student to struggle intellectually to initially solve the problem and to then check their work. *Checking by counting* allows students to justify their claims. Once students had checked the stair for the correct amount of cubes, I held up the nine and ten stairs to the Building Staircases work-mat. This allowed students to see a visual representation of the two numbers in comparison to one another (8:40). Students were engaged throughout the lesson through total physical response, whole group answer, visual representations, kinesthetic activities, and modeling of activities. All of these mediums aided in student understanding of the central focus of the learning segment, counting.]

- b. Describe how your instruction linked students’ prior academic learning and personal, cultural, and community assets with new learning.

[Instruction within lesson one catered to the very diverse assets that each student has. Students’ prior learning set a foundation for academic understanding, and starting with review of mathematical knowledge allows the lesson to build upon this foundation. When introducing the new number, ten, I first discussed the numbers we had already learned, “our numbers up to

nine” (0:04). From this knowledge, we counted up together and I paused after we reached the number nine and many students shouted out, “Ten!” (0:30). After reviewing the written numeral associated with each number we played the game “Miss Davis Says” that we have played in class before (1:40). By integrating mathematics into the game with the numeral cards, students practiced many mathematical concepts in the form of a childhood game. By frontloading students with the resources that would be used in this lesson, students are familiar with a ten-frame (4:20). We discussed that, even though these ten-frames have been utilized before, we will keep practicing them so we can get better. This coordinates with the understanding that numbers can be represented in different ways and arrangements. I asked students to show the number four using their fingers, reminding them that we can build numbers in different ways (4:49). This directly correlates to lesson three, so lesson one helps set the foundation for a future task. When representing numbers with unifix cubes instead of counters with the ten-frame on the Promethean Board, students are exposed to another way of building numbers. Students are familiar with unifix cubes from previous use (5:40). The previous experience of students with many of these materials combined with their prior academic knowledge to allow me to use these resources and skills within my lesson to practice the central focus of the learning segment, counting.

Students’ personal, cultural, and community assets greatly influence their academic experiences. Taking this into consideration, I have noticed that many of the students in the class enjoy building during exploration time. Students build with Legos, wooden blocks, and foam shapes on a daily basis. Stemming from this desire to create and build, I integrated the idea of building staircases to stimulate student engagement. To engage every student, I included some role-playing with a specific duty bestowed upon each student. I wore a hard hat and explained that, today, they were going to be construction workers or builders who had a job: to build a staircase (10:33). By using this realia and explaining the job each student had, I gave the activity an overarching purpose, and made it more than a mere math lesson. Students understood that mathematics is used all the time in the “real world” and increased their awareness of the importance of mathematics (10:49). Utilizing the community built within our classroom, students worked with a partner as I reiterated that we are all friends in our class. Referring to the students as friends helps create a culture of acceptance and companionship (0:32, 1:04). Teamwork and respect are also social skills that students are developing to create a positive class culture and community. Success in these areas is highlighted when possible (6:40, 14:15).]

4. Deepening Student Learning during Instruction

Refer to examples from the video clip(s) in your explanations.

- a. Explain how you **elicited and built on student responses** to promote thinking and develop understandings of mathematical concepts.

[Building upon student responses allows for students to hear from peers while gradually developing their conceptual understanding through teacher guidance. One way I built upon student responses was when the student built ten using multiple ten-frame structures on the Promethean Board (7:15). I did not highlight his error in not correctly utilizing the structure. In response to this, I focused on his ability to demonstrate his knowledge of the number ten in a different way. This gave a prime example of how numbers can be arranged in different ways while still representing the same number. We checked his work by *checking by counting* and the last number stated was ten; therefore, that was the total quantity shown. I explained that a ten-frame is traditionally used with 5 on the top and 5 on the bottom row, but the student solved his dilemma as he ran out of room on the board to fill in the boxes of multiple ten-frames. While I had not planned for this to occur, it allowed for a valuable learning opportunity, that reiterated

both counting and cardinality as well as the ability to count to answer “how many?” regardless of arrangement or orientation.

During whole group instruction I asked for a student to tell me which unifix cube tower I held in my hands showed four. One boy came up and pointed to the correct tower. When prompted with the question, “How did you figure that out?” he answered, “ I looked at it” (6:13). Building off this response I asked him, “And what did you do in your brain when you looked at it?” He thought about it and then answered, “I counted” (6:20). Prying this student for further explanation allowed the other students in the class to see his mathematical process. Then, using his technique of counting, the whole class checked by counting, a skill that is reiterated throughout the lesson (6:25). In a similar situation, I asked a student to tell me which unifix tower I held in my hands had ten cubes. I explained we can check by counting, the same principle we just practiced (8:42). When shown the tower of nine cubes, the students automatically started to count together to check the tower (8:57). One student discovered that if you add one more cube to the nine tower it makes ten (9:05). Stemming from his discovery I put the two towers next to each other and asked the students to look and see what was missing from the nine tower. This visual representation helped solidify the pattern of adding one more for each successive number name. Building off of student answers and discoveries allowed for important academic discussion for student learning.]

- b. Explain how you used representations (manipulatives, models, tools, diagrams, charts) to support students’ understanding and use of mathematical concepts.

[Students’ understanding and use of mathematical concepts was supported throughout lesson one with the use of different representations. To introduce the lesson, numeral cards were utilized to review numerals that had already been discussed (0:39). This allotted practice with number sequencing and recognition. Using these numeral cards within the context of the “Miss Davis Says” game allowed students to connect counting and cardinality as well. Using the Promethean Board ten-frames allowed students to become better acquainted with this tool (4:30). Students demonstrated building numbers using counters and the rest of the class was invested with this activity as we checked by counting. These ten-frames would set the foundation for later utilization of this tool in lesson two and three. Coinciding with visual representations of the numbers, unifix cubes were utilized to demonstrate different numbers as well. The *checking by counting* ideal was reiterated throughout the use of the ten-frames and the unifix cubes. The unifix cubes used within the whole group instruction allowed students to understand how these tools would assist in their mathematical exploration. Comparing the unifix cubes as stairs on the Building Stairs work-mat allowed students to see a modeled example of how to use this diagram to check their work (10:07). Building the staircases and matching them with their proper stair column on the Building Stairs work-mat portrayed a very clear mathematical pattern for the students. This work-mat helped students understand number order, recognition, the relationship between counting and cardinality, the last number name stated tells the number of objects, and that each successive number name refers to a quantity one larger. To go up a stair, students understood that you must add a cube to reach that level (9:05, 14:38). The resources utilized within lesson one all contributed to student understanding and mathematical reasoning.]

5. Analyzing Teaching

Refer to examples from the video clip(s) in your responses to the prompts.

- a. What changes would you make to your instruction—for the whole class and/or for students who need greater support or challenge—to better support student learning of the central focus (e.g., missed opportunities)?

Consider the variety of learners in your class who may require different strategies/support (such as students with IEPs or 504 plans, English language learners, struggling readers, underperforming students or those with gaps in academic knowledge, and/or gifted students).

[Reflecting upon lesson one, if I had the opportunity I would make some changes to my instruction. First, when playing “Miss Davis Says” I would do more auditory stimulants for my auditory learners. The students were to jump twice, clap three times, touch their toes four times, cross-crawl five times, clap their knees seven times, and pat their head ten times. I would add in perhaps snapping, singing, or stomping. When Miss Davis did not say, I would have clarified that students would not be “out” they would be able to still participate. The students who did not fall for the trick would pat themselves on the back. Clarifying this rule before the start of the game would eliminate any confusion on what should happen to students should they get tricked. Another thing I would alter would be to extend my response to the boy building ten on the Promethean Board ten-frame (7:15). When he showed ten using multiple ten-frames it was the perfect opportunity to create the safe learning environment for exploration and attempts at mathematical discovery. I explained that we use ten-frames with 5 boxes on the top row and 5 boxes on the bottom row. However, the way the student showed ten exemplified the correct number just in a different way. Capitalizing on the opportunity to discuss that arrangement and order of objects does not matter, just the total number counted, I ended the discussion with this. After reflecting, I would have liked to show what ten looks like using a complete single ten-frame. Students can then truly visualize and understand the meaning behind a ten-frame. During whole group instruction, a student observed that if you add one more to nine that makes ten. Another student then built off of this discovery and said if you added the one cube to the nine and then added that to the ten stair then that would make twenty (9:28). A discussion then started to break out about the different possibilities and instead of exploring this idea further, I had students quiet down and refocus on the task at hand. After reflecting on the lesson, I would have used the ten frames on the Promethean Board to demonstrate what the student verbalized. This perfectly sets the foundation for addition, a complex concept for many students that will be covered this year. In this instance, exploring this idea further utilizing the resources at hand and practicing the skills we were learning can challenge students and benefit the class with learning the central focus.

Some resources I would add in to assist not only the entire class, but especially my English language learner, student with Autism, and student with developmental delays, would be a chart of instructions and sentence frames. When modeling what the students should do in the task, I would also like to chart the directions. Using visual pictures as well as words, this can help students understand the expectations. I would have the steps listed (Look at the number, Think about what it means, Build the stair, Check by counting, and Record) as well as a picture next to each one. This varies the directions given and can serve as a reference for students who may forget what to do. While modeling helps guide my students with specific learning needs, I believe this chart would serve as another good tool. I would include sentence frames at the end of the lesson. Reviewing observations made about adding one more cube to reach the next stair is aided greatly by the unifix cubes and the Building Stairs workmat. However, I would add in a sentence frame such as: _____ needs one more cube to reach _____. Reading this sentence frame with the proper numbers aloud as a class reiterates the concept that each successive number name refers to a quantity that is one larger. In combination with the visual unifix cube stairs and the stair work-mat, this allows for complete conceptual understanding.]

b. Why do you think these changes would improve student learning? Support your explanation with evidence of student learning **AND** principles from theory and/or research.

[I believe the changes stated above would improve student learning. When I teach, I know I am responsible for not just the academic well being of the student but I must cater to educating the whole child with all of his or her physical, mental, and emotional needs. In accordance with this, I understand that variation in teaching styles will help the academic learning reach all students with various learning styles. Fleming argues that optimal learning demands that students receive instruction through a variety of means, tailored to student learning styles. Through the game, “Miss Davis Says,” students receive an engaging activity for auditory, visual, and kinesthetic learners. Clarifying instruction and expectations (no student will be “out,” students who are successful will get to pat themselves on the back so participation in learning will be available to all students the entire time) in the beginning would help the activity run smoother without interruption. When students clearly understand the task and its instructions, student learning is much more successful.

The next changes I would make reflect extension from student observation. I wanted to expand on student discoveries that included the boy’s creative take on the use of a ten-frame as well as the girl’s mental math understanding how to create not just ten, but twenty. Allowing the boy to complete the ten-frame as he thought best and reiterating that there are multiple ways to create ten helped focus on one aspect of the central focus of counting (it doesn’t matter how objects are arranged when counting). However, I would have liked to demonstrate the typical use of the ten-frame and how this resource demonstrates the number ten when filled. This would have been an opportunity to compare the boy’s ten-frame building and the single filled ten-frame. This would support Bruner’s theory of discovery learning. Bruner argues that learners acquire knowledge by forming and testing hypotheses. Guiding students through the two representations of ten can allow students to see the claim unfold before them and be proven through testing the hypotheses. Building off the girl’s claim that adding one cube to the nine stair and adding this to the ten stair would make twenty, I would have liked to explore this observation further. In accordance with Bruner’s discovery learning, to further not only her understanding but also the whole class’s knowledge on utilizing the resources available to test hypotheses, I would have liked to show nine using the ten-frame and then add one more. Then I would fill the entire next ten-frame. Then the class would count together out loud as I pointed to each counter. Then I would show the representation in unifix cubes as the girl explained it. We would check by counting the twenty-cube stair. Both representations would show twenty and this process would align with Bruner’s discovery learning theory.

I would also like to add more resources for students to better understand the expectations of the lesson, as well as use academic vocabulary with more ease. Adding the chart for instructions, displayed with visual aids, and the sentence frames provide scaffolds for student success. Bruner and Vygotsky are both proponents of scaffolding to provide support during the learning process and achieve academic goals. Through these two changes students would be presented with another method of portraying instructions and supported in their development of academic language, ultimately improving student learning.]