

Apprentice Teaching in Secondary Mathematics and Science

INSTRUCTION AND DELIVERY REFLECTION

Directions:

Complete four entries in a reflective log focusing on your instruction and delivery. You will use a variety of strategies throughout the week. Focus on two highly effective strategies and two less effective strategies

For each highly effective strategy:

1. Identify the specific strategies planned and a rationale for the strategy,
2. Explain how the class went and why you think these strategies helped the lesson,

Wait Time – On Monday I wanted to really focus on my wait time when asking questions. I planned to wait longer than normal after asking a question because typically my mind is racing and I have many different questions to ask. I think that if I ask a question and they don't automatically answer then I need to give them another question to help lead them to where they need to be. I wondered how often they knew the answer to my original question and just didn't have enough time to form a response to share with the class. Going into the lesson I planned to count (in my head) to seven before saying anything. I knew it would be hard, and most likely awkward, but it could be worth it.

The beginning of the period was difficult, I think they were used to hearing a question and then waiting to hear a follow-up (easier) question that they may or may not answer. When they saw that I was going to wait an awkward amount of time, there were hands up. Maybe partially to alleviate the awkwardness, but more importantly, because they had had enough time to compose an answer. I found throughout the period this was the case. I believe that the students needed that wait time to comprehend what I was saying and then to analyze it to get to an answer. I didn't realize it, but I had already had the time to consider these things I was questioning the class about, this was their first time hearing and thinking about them. They needed that think time, just as I did while I sat at home developing the lesson. I think the wait time aided the success of the lesson, there was less talking by me and more explaining by the class. I do want to try to continue this in my practice; it will take a conscious effort.

White Boards – I wanted to try white boards to engage all students. When observing my mentor teacher I saw that she had the students use individual white boards for review questions. The students loved them and were more involved in the lesson. I decided to try this because I have had sleepers in the past and felt that this would make it very obvious to me who is not participating so that I can do something about it. For our activity I taught new materials the first half of the period and then would have the students get their white boards to answer practice problems. I would show a problem on the board and they would solve it to find the answer and hold up their board. I would tell them if they were right or wrong and if they were wrong they were to make corrections and hold their board back up.

This went very well. It typically takes me awhile to notice when a student in the back is sleeping because I am focused on teaching the lesson, but this way I was able to conduct the lesson and easily monitor student participation. I saw that a student had his head leaning against the wall and was not participating and I said "Student name, what did you get?" and he then joined in the activity. I think this is a great activity because the students enjoy it and it helps me to better classroom manage, in addition to evaluating student understanding. 😊 I would love to have a class set of student white boards and incorporate this frequently in my lessons.

Apprentice Teaching in Secondary Mathematics and Science

For each less effective strategy:

1. Identify the specific instructional strategies planned and a rationale for the strategy,
2. Explain how the class went and why you think it was not effective,
3. Describe planned changes or alterations of these instructional strategies for the future.

Graphic Organizers – This strategy was implemented in a previous week, but I wanted to include it as one of my less effective strategies. I created foldables for my students to help organize the different types of transformations. There were 5 flaps and my goal was that students would write in the highlights for each transformation and they could use it as a study tool and to help them see an all encompassing view of transformations (especially when we combine transformations!)

I would teach a section and then their warm-up the next day would be to fill in the flap for the previous day's section. My goal was that it would serve as a review of yesterday's lesson and it would keep the material fresh in their head. I ended up showing them my example and they copied it word-for-word. Though I told them over and over to only write what was helpful for them. It took way too long because many students did not begin when the bell rang and then complained when I went to remove my example. I think it was not effective because they were not thinking for themselves what was important to include. I also think that since they had not been used to using foldables in this class that they may not have understood their purpose as a graphic organizer.

Planned changes would definitely include the continued use of foldables/graphic organizers, but in a different way. I would change it from a copying task to a discussion, asking students what they felt was significant from the lesson and we would write down the important points the class shared. I would also need to be more firm on the time. If it is time to move on and there are lagging students, they will need to get the information at another time.

Cold Call – I wanted to try cold calling because I want all students to participate in lessons daily and there are students who do, and there are student who never volunteer answers. This way I figured I could hear from everyone and I could possibly help students to realize that participating in class is not painful. I would use cold calling in my lesson and call on all nineteen students by the end of the period (at least once).

The lesson went well, for the most part. I did call on everyone at least once, many students two or three times. The part that made it uncomfortable for me was when I would call on a shy student to answer a question and they didn't know the answer. I thought the question was easy enough and that she would know it, but she didn't and I felt that I put her on the spot and made her feel uncomfortable. I never want a student to feel uneasy, or embarrassed, so I quickly asked her a simpler question (avoiding the wait time). My goal was to build her up, not to knock her down. Other than that I do think it was effective because the students knew they'd better be paying attention since they could very well be called on. They were focused on listening and think about the questions.

Other than that one student it was good, but to improve this strategy I would need to calm down and know that it is okay for students to struggle. Most of them will be fine and appreciate that I am there to help them.