

Evaluating Instructional Strategies

One of my main, go-to instructional methods is having students do individual work and then review the work as a small group. I personally like this method the best when we are working on some of the heavier topics of a unit. By doing individual work, my goal is to have students use their knowledge to complete the task. Then as a group they can review the questions or work and as a team come up with the best answers. This gives them the time to help each other if they are confused and allows the students who understand the material to explain what they know to those who need the assistance.

I decided I would evaluate how effective this combination of methods was in a lesson I did on photosynthesis review. I designed the lesson to have them work individually on an application based lab simulation and then they would work as a group to review and come up with the best answer overall. Students have already learned about photosynthesis so their task for the lab was to make a prediction and support it with evidence for each of the simulations. Then they would carry out the simulation and explain the results. Since this was at the end of a lesson, I wanted it to be individual at first so that I can see how students are doing with their understating of the material.

One of the first rubrics I used was one that was created for evaluating individual assignments.

Category	Description	Level 1-3 1= Excelling 3=Emerging
Teacher: Curriculum	Teacher's instruction meets larger curriculum goals mandated on the school, district, state or federal level.	1.5- The assignment aligned with LS1-5 from NGSS as well as B2.1A.
Teacher: Directions to Students	Directions are clear and concise. Students demonstrate understanding of procedure based on classroom or homework activity. At least two mediums of directions are present. Special cases such as 504s or IEPs are taken into consideration.	2- I was very explicit with written as well as oral directions. I put the worksheet on the projector and reviewed the procedure for students to make sure they understood the format. Some students were still confused so I assisted them individually as class began. I should have also done a practice demonstration of the simulations because my directions were not as clear as I originally thought when it came to using the simulator.

Category	Description	Level 1-3 1= Excelling 3=Emerging
Time for Completion	Students are given appropriate amount of time to complete assignments.	1- Students were told at the beginning of the lesson that they would have 25 minutes to complete the exercise. I put 25 minutes on the timer and would warn students as time decreased, at 15 minutes remaining and 5 minutes remaining. Because the worksheet was only one page front and back with 3 simulations, there was no need for more than 25 minutes. Almost everyone who was working diligently was able to complete their work in time.
Resources	Students are given resources that aide completion, deepen knowledge and are appropriate to task.	1- Students were allowed to use their notes and the computers for the second half of each lab. The first part was just using their knowledge and coming up with an answer.
Assessment	Assessment aligns with curriculum goals and allows students to demonstrate knowledge and mastery of the content.	1.5- The assignment was a review for students and had them answer why level questions explaining the simulations they had seen with the information they had previously learned about photosynthesis. This allowed them to show me that they understood the concepts that we had covered and allowed me to see if they were prepared for a quiz.
Student Engagement	Students show engagement through positive attitudes, insightful questions, successful peer-to-peer or teacher-to-student interactions and accomplish goals of activity.	1.5- Students were quiet during individual work time and everyone was using the simulator properly. Students were good about asking questions about how to get on the webpage or for assistance when the page was not working, however they refrained (for the most part) from asking me many questions and instead referenced their notes like I had asked. This was so that I could see what they knew, un-aided.

Based on my completion of this rubric, I would say that the individual assignment was effective in accomplishing what I had hoped. Students worked diligently on the individual

portion of the worksheet and this allowed me to see what level of understanding they had over the material. This rubric did highlight a need for more clear directions. In the future I would go through one simulation with the students so that they could see what it would look like. This would prevent many of the questions students had for me that were not related to material.

The second rubric I used was one for small group interactions.

1. My instruction was successful if all students participated actively.

Minimally effective	Effective	Highly effective
	<p>Most students were actively engaged, as they had all completed the individual assignment. I did notice that some individuals participated more in their small groups than others. There were a couple groups that I heard only a few voices instead of all of them. I worked with these groups individually to try to get everyone discussing and this seemed to help.</p>	

2. My instruction was successful if students were grouped appropriately.

Minimally effective	Effective	Highly effective
	<p>Almost all groups were grouped appropriately. As stated above there were a few groups that I only heard some voices from and so I think for the more dominant conservationists I should have made sure there was only one per group, not 2 or 3. This would ensure that no one had the floor the whole time and students could feel like they were being heard.</p>	

3. Were students prepared for the task?

Minimally effective	Effective	Highly effective
		Students had all completed the simulations and had written out their ideas. They also had prior knowledge of photosynthesis from the lessons we worked on the previous week. Because they had this prior knowledge, everyone was prepared and had the knowledge to contribute effectively to the conversation.

4. My instruction was successful if students met the objectives.

Minimally effective	Effective	Highly effective
		Students were all able to discuss and evaluate their answers to come up with one answer they found to be the best and most complete. Each group was able to do this and their answers were well thought out.

5. My instruction was successful if students worked collaboratively.

Minimally effective	Effective	Highly effective
		Between effective and highly effective There were no disagreements during the discussions and all students seemed to be participating with the exception of a few who had groups with many dominating personalities. Students worked together and combined their answers to come up with one cohesive and complete answer. They all felt that they had shared and contributed to that final answer.

I think that the small group work went very well and allowed students to share their work and combine it to make one correct answer. I noticed that students who did have questions asked their group for assistance, rather than me. I thought this was great because students that mastered the material were reinforcing it for themselves as well as helping another student and explaining it in a way that I may not have been able to. I noticed that the

peer-to-peer discussion was in-depth and that students seemed to be actively engaged in the discussion. In the future I would make a few changes to the groups however. I let them just work with their table group which is a group that I had already assigned but there was a table with a few students that dominated the conversation and did not leave a lot of time for other students to share their answers. I would split them up in the future.

Overall I would say that my go-to instructional method is effective for what I am looking to accomplish. I want students to demonstrate their understanding then work together to clear up misconceptions or any confusion.