

III. Evidence of Project Goals & Student Learning

What evidence will you seek to collect and analyze to determine how well or to what extent project goals were achieved? How will you measure evidence of student learning and/or teacher change?

In this project, we will collect individual student data through voluntary attitude surveys administered twice throughout the semester. Based on the results, we can assess progress in learning biochemistry concepts by analyzing trends in the qualitative data. Additionally, we will evaluate how the implementation of these tools influence student performance. We analyze growth in student learning by observing their general participation in Zoom Breakout Rooms and Supplemental Instruction sessions, and how well groups collaborate together. Using course evaluations from previous semesters, we can analyze the usage of remote active learning tools in comparison to similar assignments done in in-person teaching styles. In addition to quantitative data collected from their worksheet grades, we will be doing qualitative Likert surveys as well.

The potential list of questions we will be using for qualitative data analysis are shown below:

1. Did working in groups via Zoom breakout rooms help facilitate your understanding of introductory biochemical principles?
2. Did you feel like the grading of the POGIL sheets provided helpful feedback for quizzes and exams?
3. What did you like most about the POGIL worksheets? (background info, figures, questions, teamwork)
4. Did the use of interactive tools such as Zoom break out rooms and POGIL worksheets complement your remote learning experience?
5. Did the use of POGIL worksheets deepen your understanding of introductory biochemical principles?
6. How well did your group work together to complete worksheets?
7. What did you like the most about this format of remote learning?
8. What could have been improved upon regarding the tools provided during this remote learning experience?
9. To what degree was critical thinking achieved while watching recorded lectures?
10. To what degree was critical thinking achieved while engaging in group work?
11. To what degree was group collaboration via Zoom different than in-person?

IVa. Budget Narrative & Timeline

How will Nord Grant funds be used to support the project – for materials/equipment, for student stipends, or for something else? What support, if any, will the project receive from other sources, including on-campus (e.g. department funds) or beyond-campus (e.g. discipline-specific awards) funds? What is the proposed timeline for the project? Is this a new project or is the work already underway?

The Nord funds will be used for student stipends. I have started implementing some aspects of this project in my summer course, but it is difficult to observe and collect data in a class of 37 students by myself. This grant, with UG student support, will be essential in fall if this project has to move forward.

IVb. Budget Details

Expenses (round to the nearest dollar amount).

Student 1 stipend @ \$15/hour for 100 hours/semester	\$ 1500
Student 2 stipend @ \$15/hour for 100 hours/semester	\$ 1500
Etc.	
Etc.	
Etc.	
Total Nord Grant Expenses	\$ 3000

Cost Sharing

Item and description 1: I had received a Nord grant in spring 2020 through which the worksheets were created	\$ 7000
	\$ (amount)
Etc.	
Total Cost Sharing	\$7000
TOTAL PROJECT COST	\$ 10000