

Reflective Writing Assignment 2:

Before we get into the content for today's meeting, we want you to be mindful about what you have experienced over the past six weeks, your perceptions about research, and your strategies for planning and record keeping. We also would like you to articulate what you feel you've learned so far from the "Pro-Lab" experience. Please take a moment to complete a writing assignment that will help you think about these things. Please complete the questions in the "Reflection 2" document in your [individual ProLab google drive folders](#). Your grade on this assignment will depend on the thoughtfulness of your answers. There are no right or wrong answers. Please be honest and thoughtful.

1. Compared to your previous coursework, what have you learned to do differently to prepare before arriving in lab to do an experiment?
2. How often did the experimental procedure you performed deviate from the procedure written in your notebook?
3. What do you think is the role of the laboratory notebook in a college classroom? In a research laboratory? In an industry laboratory?
4. How has the way you organize data (ex NMR, GC, UV-vis, excel graphs), or pictures changed as you have gained more experience and used the electronic notebooks?
5. In your experience, what skills are important for keeping your notebook organized and up to date? Which of these do you find most challenging?

Choose three of the following (delete the ones you do not use):¹

- A. How have your recent activities helped you address your research question?
- B. Have you made progress in the last fortnight?
 - If so, what allowed you to make progress?
 - What kind of activities did you engage in that helped you make progress?
- C. Problems and obstacles are a normal part of research. Did you encounter any?
 - If so, what made them problems?
 - How did you go about solving them?
 - What would have helped you overcome them?
- D. What might you have done differently if you had known two weeks ago what you know now?
- E. Has your research question changed? If so, why, and what has it changed to?
- F. Have you found/learned anything unexpected? Explain.
- G. Has anything you've learned shifted the focus or aims of your project? How?
- H. How have you chosen the approach or methods that you are using for your project?
- I. What are the connections between your research activities and your other studies?
- J. Can you see ways in which you could apply what you have learned to other activities, in our out of university? How?
- K. What have you learned about your project topic, science, or research more generally?
- L. What have you learned about yourself from doing this project?
- M. Has your view of what research is changed from your project experience? Explain how.
- N. Has this fortnight's activities raised any questions you would like to discuss with your supervisors? If so, list them.

¹ Howitt, Susan and Wilson, Anna. Scaffolding Reflection as a Tool for Surface Complex Learning in Undergraduate Research Projects. CUR Quarterly Summer 2016, Volume 35, Number 4, 33-37.