

Appendix 4: Reflection Questionnaire and Interview Protocol

Reflection Questionnaires for Teaching Assistants Involved in the Engage PD Program

This reflection is for lab (Title): _____

Reflecting back on your teaching practices in the previous class:

1. Describe how you engaged (made students involved in the learning) students in your class. Give some specific examples of what you did.

What evidence do you have that students understood the purpose of the lab?

2. What specific questions did students have?

3. Describe how you handled students' questions.

4. Describe the Classroom Assessment Techniques (CATs) that you employed in your lesson.

With specific examples, describe how you implemented the CAT(s) you described in question 4 above.

5. What problems did students have with the lab?

Describe how you handled the students' problems.

6. What was your average wait time 1 (the period between when you asked a question and when the students responded)?

Do you think you can improve on your wait time? If so, what do you plan to do next time to improve?

7. Describe how you handled (explicitly taught) the following:

- Relevance of the concept or lesson to the students' daily lives
- The chemistry/biology connections to the lesson
- Lesson closure (how did you end your lesson?). How do you know your students walked out of class with the lessons learned?

8. Describe the aspects of your teaching that you executed the best?

9. Which areas do you think need to be improved in the next lesson(s)?

10. Describe how you will prepare to teach your next lesson to improve in some of these areas.

Interview Protocol for TAs Teaching Interdisciplinary Chemistry-Biology Laboratory Modules

Good afternoon/Morning. In this interview, I will ask you about your experiences in teaching the STEM laboratory experiments.

1. Describe your experiences in using inquiry approach to teach the STEM units.

(Prompt, if necessary)

What challenges did you experience in using inquiry?

(If challenges relate to classroom practices) How did you handle such challenges?

2. Describe your experiences in integrating biology and chemistry connections in teaching the STEM experiments.

(Prompts: If necessary)

(a) What challenges did you experience in integrating the connections between biology and chemistry concepts in your teaching?

(b) Reflecting back on the STEM units that you taught, which specific **biology/chemistry** connections were most challenging to integrate into the **biology/chemistry** concept?

(c) How did you handle such challenges?

3. Describe how the TA training influenced your normal teaching practices?

(Prompts: if necessary)

(a) Describe specific benefits the TA training had on your teaching assignment.

(b) What challenges did the training introduce into your teaching assignments?

(c) Would you recommend similar TA training to be adopted by your department?

(Prompt) Why or why not?

4. Describe your experience in implementing the classroom assessment techniques (CATs) in your teaching assignments?

(Prompts, if necessary)

What challenges did you experience in using the CATs?

What type of CATs did you employ **most** compared to the rest?

(Prompt) Why did you prefer such CAT(s)?

5. Describe how self-reflections on your lessons impacted your teaching practices in general?

END

Thank you so much for your time and participation