

**"It makes me feel better... Just because they said I had a solid argument:" Characterization of student interaction with peer feedback**

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**Electronic Supplemental Information – Interview Guide**

*Introducing the Interview:*

The plan for today's interview is to just go back through your responses to that data analysis assignment together so we can get some insight into what you were noticing and what you were thinking about when you did it. After we've gone through the task together, I'm going to walk you through some peer review that you received, and then have you revise your initial argument based on that feedback you receive.

I want you to know that there are no right or wrong answers here! We just want to know how you're thinking about things. So it might feel a little awkward, but do your best to do all your thinking out loud. The only people who will know how you answered these questions are me and Alena.

What questions do you have for me right now?

Are you comfortable using the iPad? *If the student isn't super sure how to use everything, show them the Apple pencil and encourage them to annotate the screen as you work through the interview together.*

Part One: Reviewing the assignment

Awesome, we're going to jump right into this then! Let's start out by going back through your responses to this assignment. Would you like a second to reread some of that beginning information, or do you feel comfortable starting with your response to the first piece of data you saw?

*If the student wants to review the beginning information, give them a chance to read through it again before transitioning to the first question. If not, proceed to the first question.*

1. Walk me through what you were noticing about this figure.
  - a. How were you interpreting the y-axis?
  - b. What parts of this data set were confusing to you?
  - c. Was there anything else from this first set of data that you wanted to talk about?

That was really great! Let's go on to the next part of the assignment where you had to start thinking about some of those rate constants. *Scroll down to Table 1.*

2. Why don't you walk me through what you were noticing about this table here.

- a. How did this data align with what you know about rate constants and chemical kinetics?
  - i. *If a student is unsure how to answer the question, you could ask "I noticed you mentioned X trend, how does that align with what you know about chemical kinetics?"*
- b. What parts of this table were confusing to you?
- c. Was there anything else from this data set you want to discuss?

Perfect! We've got one more set of data to look at before we talk about your final decision. You're doing a great job. Let's talk about Table 2 now. *Scroll down to Table 2.*

3. Talk me through what you were noticing about this data table.
  - a. Based on your interpretation of the assignment, what did these rate constants mean for the onion?
  - b. How did this data align with what you know about rate constants and chemical kinetics?
  - c. What parts of the table were confusing to you?
  - d. Was there anything else from this data set you want to discuss?

Now that we've sort of refreshed ourselves with the data and the assignment, let's talk about what you selected for the best conditions to dehydrate the onion at.

4. Walk me through the conditions you selected and explain how you came to that answer.
  - a. What data did you think was important to incorporate into your answer?
  - b. How did you feel about your initial response?

### Part Two: Receiving Peer Review

Okay let's switch gears now. For the next part of the interview, I'm going to give you four different sets of feedback about the answer that you submitted for this assignment. After you've read the feedback, we're going to talk through it together. Let's start with the first piece of feedback. I'll give you a chance to read it and you let me know when you're ready to discuss.

1. What are some of the things you're noticing about this feedback?
2. How does this feedback you're receiving influence the way you're thinking about your own argument?
  - a. *If the feedback isn't really influencing the student:* What would this feedback need to include in order for it to be more useful to you?
3. Based on this feedback, how confident do you feel about your answers?
  - a. What is making you feel more/less confident?

*Repeat for other peer review comments.*

### Part Three: Making Revisions

Alright, we're at the final part of the interview. For this part, I'm going to give you a chance to revise your initial argument based on the peer review you received. I'll give you a second to read your initial argument again.

1. Okay, based on the feedback you were given, what are some of the changes you would want to make to your argument?
  - a. Where in the feedback did you get that idea to make that change?
  - b. What improvements does that change make to your response?
  - c. Are there any other changes you would want to make based on the peer review?
    - i. *Ask a and b again as follow-ups*
  - d. Was there any feedback that you were given you wouldn't want to incorporate in your revision?
    - i. Why not?