

Culturally Relevant Chemistry Pilot Interview Protocol

Thank you again for your participation in this pilot interview which is intended to learn more about your approach to teaching chemistry. It will take us about 45 minutes. Your responses will remain confidential and your participation is voluntary, so you can answer all, some or none of the questions without any negative impacts for you.

Is it ok if I record this interview to capture your responses verbatim? [Start Zoom cloud recording if permission is given] Before we begin do you have any questions about your participation, or anything else?

I would like to start by getting to know more about your teaching background and context:

1. Can you tell me about your teaching experience and background?
2. What courses do you currently teach?
3. What is the average student enrollment in a section of ____?
4. How would you describe the racial and linguistic diversity in a typical section of ____ at your institution?

The next few questions focus on your current instructional approach:

5. How would you describe a typical day in your ____ class?
6. How do you get to know the students in your classes?
7. What are some of your favorite activities in your ____ course?
8. What is a current priority or challenge in your teaching practice?

Now we will shift to thinking about culturally relevant chemistry teaching:

9. Which of the following best describes your experience with culturally relevant chemistry teaching: *[copy options into chat]*
 - a. I've heard or read about it.
 - b. I'm interested in incorporating it into my instruction.
 - c. I have experience using culturally relevant teaching practices.
10. What does "culturally relevant chemistry instruction" mean to you?
 - a. How does this compare to what you think of when you think of student-centered or inclusive instruction?
11. Do you have any examples of an activity or lesson you have (or might) facilitate that connects chemistry to students' backgrounds or local communities?
12. What do you perceive to be the biggest challenge of adopting and implementing a culturally relevant instructional approach?
13. (If answered 9c) What are your biggest successes with using culturally relevant instruction with your students?

In the next section, I will present some hypothetical teaching scenarios...

14. At the end of the semester, the general chemistry instructors analyze student success rates disaggregating by a number of demographic factors. The data show that Latinx students are experiencing lower success rates in General Chemistry I when high school preparation/standardized test scores are controlled for. The department chair challenges the faculty to reflect and generate ideas for the next meeting. What ideas would you bring and/or be interested in implementing to promote more equitable achievement in the upcoming semester?
15. In an effort to broaden the participation and success of racially diverse students in general chemistry, colleagues in your department proposed incorporating activities and

examples that more meaningfully connect chemistry to students' backgrounds and experiences. How do you envision adapting this traditional molecular modeling task [*link task in Zoom chat*] to address this goal in a ____ class?

In closing...

16. Is there anything that we haven't talked about that you would like to share about your chemistry teaching practice or your ideas around culturally relevant chemistry instruction?
17. For analysis purposes, it would be helpful to collect information about instructor identities. Any information reported will be anonymized and aggregated with other data. Would you be willing to share how you identify regarding your race/ethnicity and gender? Do those identities impact what you have shared with me today?

Thank you!