**External Evaluation Survey Questions**

1. Perceptions of preparedness to implement reform-oriented instructional strategies

Thinking about your science teaching more generally, please indicate how prepared you feel to use each of the following strategies, regardless of whether or not you currently use these strategies.

Scale: 1=Not at all prepared, 2=Somewhat prepared, 3=Fairly well prepared, 4=Very well prepared

1. Provide students with clear, explicit learning goals
2. Use student-centered teaching strategies (e.g., flipped classrooms, clickers, peer instruction, small group work)
3. Elicit students’ understanding of an idea prior to instruction on that idea
4. Plan instruction to address difficulties students had in previous class sessions
5. Adjust instruction during a class session because students aren’t “getting it”
6. Help students make connections between ideas covered in one class session and ideas covered in other class sessions
7. Help students apply concepts they have learned in new or different contexts
8. Help students make connections between ideas covered in class and their experiences outside of the classroom
9. Ask students to reflect on how their thinking about an idea has changed
10. Ask students to support their conclusions and/or claims about an idea with evidence
11. Provide feedback to students about what they have achieved and where they need to improve
12. Have students review one another’s work and offer feedback
13. Prepare students to take responsibility for their own learning through self-monitoring, self-assessment, and self-evaluation
14. Use student data to plan for future instruction

2. Use of reform-oriented instructional strategies

Thinking about this course, approximately how often do you do each of the following?

Scale: 1=Not at all, 2=Once or twice during the quarter, 3=Several times during the quarter, 4=Weekly

Same items as in #1.

3. Supports and barriers to implementing reform-based instructional strategies

To what extent to you agree with each of the following statements?

Scale: 1=Strongly Disagree, 2=Moderately Disagree, 3=Slightly Disagree, 4=Slightly Agree, 5=Moderately Agree, 6=Strongly Agree

*Items in italics were coded as supports, or supportive mindsets.*

1. *I am familiar with student-centered teaching strategies (e.g., flipped classrooms, clickers, peer instruction, small-group work).*
2. *I would like to incorporate more student-centered teaching strategies into my courses.*
3. Lecture-based teaching is effective for teaching STEM concepts to college students.
4. *Student-centered teaching is effective for teaching STEM concepts to college students.*
5. It is important that I cover a wide array of topics in my courses, even if these topics are not all covered in-depth.
6. Others in my department expect me to cover certain topics in my courses so that students are prepared for future STEM courses.
7. I do not have enough time to learn more about student-centered teaching strategies and how to use them.
8. I do not have enough time to incorporate student-centered teaching strategies into my courses even if I wanted to.
9. My students are familiar with lecture-based teaching and would be resistant to alternative ways of teaching.
10. The classrooms I teach in are not conducive to alternative teaching strategies (due to size, layout, seating, etc.).
11. Others in my department expect me to use lecture-based teaching practices.
12. *Others in my department expect me to use student-centered teaching practices.*
13. The use of lecture-based teaching practices is important for tenure/promotion/rehiring in my department.
14. *The use of student-centered teaching practices is important for tenure/promotion/rehiring in my department.*