Instructions

For this peer-graded assignment, we're asking you to apply a rubric on Teaching-as-Research to one example TAR poster and thus develop the skill of analyzing TAR projects as a higher-order learning process for developing your own TAR project plan at the end of the course.

First, select a TAR poster from the following list: Choose a discipline you feel comfortable in, a poster that you find interesting, or a topic that would be appropriate for an introductory STEM course you might teach one day.

- Implementing cooperative learning groups in a core curriculum natural science unit: Group structure and composition
- Assessment of cultural knowledge and skills transfer in dietetics education
- "Exploring Biology" Freshman Interest Group: A high impact practice for retaining students in STEM
- A brief mindfulness intervention to increase undergraduate learning
- Using structured group work as a mechanism for breaking undergraduate engineers' statistical misconceptions
- Assessing the flipped classroom model in organic chemistry II
- What's the leak? Factors that may contribute to the low retention of students in science
- Characterization of recitation and lecture and its influence on performance in an introductory chemistry course for non-majors
- Effects of technology for students in the digital age
- Communicating atmospheric science concepts to K12 students with a rotating tank

Please note that these posters are not a complete Teaching-as-Research plans, they are visual aids meant to help the TAR authors present their project during a poster session. So, they may not make explicit all the elements of planning a Teaching-as-Research project. Please keep this in mind during your evaluation.

Using the TAR rubric provided here, analyze the poster you have chosen. Score and comment on the aspects as you see them, and make suggestions for improvements as well as areas of excellence that you are impressed by.

After you have submitted your analysis, you will be given 5 other's submissions to grade and comment on using this rubric.

Also, you will find a blank TAR rubric and a Planning Worksheet provided below. You may use these to assist you as you plan your own TAR project throughout the rest of the course.

1. **Choose one of the TAR posters provided above to evaluate. State which poster you have chosen. For your chosen poster: Decide if the 'Introduction**

and Research Question' is Comprehensive, Developing, or Cursory according to the TAR Rubric provided. Provide a detailed justification for your choice.

    a. I have chosen to evaluate the poster entitled "Characterization of Recitation and Lecture and Its Influence on Performance in an Introductory Chemistry Course for Non-Majors."

    b. Introduction and Research Question: Developing (4): Though this poster includes a nicely developed "Introduction" section, which highlights information from primary literature and its relevance to the course, the poster does not explicitly include a "Research Question." Based on reading the "Introduction" section, however, I could assume that the researcher is interested in asking a question about differences in student performance based on their involvement in both lecture and recitation periods. This is just a guess, however. There is a clear section entitled, "Objectives," in which the objectives of the study are fairly clear. I am unclear on what the researcher means by "student performance," which is not defined in this poster. I am also not sure what the researcher means when she says, "characterize recitation and lecture..." Characterize how? In summary, there is no evident research question in this poster. The "Objectives" of the study do appear to be relevant to teaching and higher learning, and to the course, yet I am unsure about the testability of the objectives or the researcher's hypothesis due to terms left undefined. For these reasons, I have labeled this aspect of the poster as "Developing (4)."

2. **For your chosen poster: Decide if the 'Literature Background and Support' is Comprehensive, Developing, or Cursory according to the TAR Rubric provided. Provide a detailed justification for your choice.**

    a. Literature Background and Support: Comprehensive (5): The researcher provides a lot of support for her "Objectives" and "Study Design" using information from the primary literature, some of which is listed at the bottom of the poster. All of these literature sources appear to provide information that is relevant to the study. In the "Introduction," however, the researcher uses terms like "evidence-based practices" and "larger learning gains" without fully explaining the terms. More explanation about terms like these would be helpful to the reader. With that said, I believe that it is very clear that the "Objectives" and "Study Design" build upon the existing studies and primary literature presented and briefly described in the "Introduction." For these reasons, I have labeled this aspect of the poster as "Comprehensive (5)."

3. **For your chosen poster: Decide if the 'Project Objectives' are Comprehensive, Developing, or Cursory according to the TAR Rubric provided. Provide a detailed justification for your choice.**

    a. Project Objectives: Developing (4): I already discussed my opinion about this researcher's "Objectives." In summary, though I believe that they are appropriately linked to the information presented and described in the "Introduction," I am unsure about the testability of these objectives. I

would like to know more about what the researcher means by "student performance" and "characterize" in regard to recitation and lecture. For these reasons, I have labeled this aspect of the poster as "Developing (4)."

4. **For your chosen poster: Decide if the 'Evidence/Assessments' are Comprehensive, Developing, or Cursory according to the TAR Rubric provided. Provide a detailed justification for your choice.**
   a. Evidence/Assessments: Comprehensive (5): The researcher applied a variety of data collection and assessment methodologies during the course of this study; both quantitative and qualitative data were combined and utilized to draw conclusions about the effects of the project. I am unsure about BOTH formative and summative assessments being utilized here, though summative assessments were definitely utilized (*e.g.,* exams). The type of data collected seemed very appropriate given the nature of the researcher's objectives, though I am unclear about how the data collection was administered over the course of the school year (but I think this may be because the poster is hard to follow, not because the information is wrong). For these reasons, I have labeled this aspect of the poster as "Comprehensive (5)."

5. **For your chosen poster: Decide if the 'Project Approach' is Comprehensive, Developing, or Cursory according to the TAR Rubric provided. Provide a detailed justification for your choice.**
   a. Project Approach: Comprehensive (6): I could be mistaken about this, but it appears that there was no real classroom intervention implemented in this study...? Perhaps just observation and data collection? Regardless, I think this study utilized appropriate methodologies of data collection and administration in the classroom. I also think that the "Objectives" were accomplished by the end of the study. For these reasons, I have labeled this aspect of the poster as "Comprehensive (6)."