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The Use of Poster Sessions to Present Student Research in the Methods Classroom

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Abstract

One way to enliven student presentation of papers is to have students prepare a poster session in which other students interact with one another interpreting research instead of passively observing. The key element is interaction. This method lends itself to teaching quantitative methods, where tables are often the focus. A number of strategies are discussed.

Professors are familiar with interactive poster sessions at research conferences. A poster session is where the researcher directly presents their research results as a visual display, which is positioned on poster board or a very-large-format photocopy. The poster is usually a mixture of a brief narrative paper, intermixed with tables, graphs, pictures, and other presentation formats (Levine, 2006).

Although any presentation can be shown on posters, quantitative results work well because tables and charts are inherently more presentational in nature. This advantage may be the reason why the natural and medical sciences first introduced poster sessions in Europe. The first poster session at a major meeting in the United States was held during the Biochemistry / Biophysics 1974 meeting in Minneapolis (Maugh, 1974). Unfortunately, most students since then typically have not received instruction, guidance, or experience preparing and presenting posters, which may lead to ineffective posters at professional meetings (Hess & Brooks, 1998).

Luger (1998) and Radel (1999) provide suggestions on how to construct a research poster. PowerPoint presentations can be easily adapted to full-size poster presentations (Larsson, 2000). In general, the same tips recommended for effective PowerPoint presentations apply to poster sessions, except that the number of slides for the latter is usually limited to ten or fewer.

Many research methods classes require term papers and some require students to present their findings, either alone or in groups. One way to enliven student presentation of papers is to have students prepare a poster session in which other students interact with one another instead of passively observing (Hess & Brooks, 1998). This paper explores previous recommendations from a review of literature, in combination with personal experiences with classroom poster sessions.

Levine (2006) outlines four reasons for poster sessions at academic conferences, each of which has a corresponding benefit in the classroom. First, a conference can accommodate more presenters. In the classroom, the instructor can limit the number of

presentation days by collapsing all reports into a single poster event. Second, viewers have more time to study data or graphics. Classroom poster sessions, therefore, need not follow a timed schedule. Third, more time is available to study the research and ask questions. For students reluctant to embarrass one another in between formal presentations, the interactive format may produce more feedback and learning. Finally, researchers whose native language is not English can more readily share their findings. Although most classrooms do not directly benefit from language issues, the ease with which presenters can respond one-to-one is much less threatening than giving a speech.

In the classroom, Hess and Brooks (1998) note that the "sheer novelty of creating a poster" can increase interest and motivation among students (p. 155). In my own experience, I have found this to be a significant benefit. So far, no student has reported that they also participate in classroom poster sessions in their other courses. They seem to enjoy the opportunity to randomly visit the posters, spending more time with those of interest and less time with the rest. For a generation comfortable with choosing the order of the songs playing on their iPods, the added control during the poster session seems to be another major benefit. Also, poster sessions give greater freedom to instructors to limit group sizes or encourage independent work that still has a presentational component.

Term papers alone do not reach the maximum audience, causing students to miss what other students are doing. Term papers plus traditional group presentations require too many class days that could be better spent by students working through specific examples of research methods. Poster sessions provide the same benefits to the classroom that have made them more commonplace at academic conferences, minus the perception that poster papers are somehow less important than those formally presented.

Strategies

One method is to schedule a formal poster session in a location different from the classroom during a special meeting time accessible to external audiences. For example, Hess and Brooks (1998) reported how they reserved a ballroom in the student union for an evening at the end of the semester and announced the event widely. Although the graduate

students (and potential audiences) in this case benefited from the extra attention, it is typically a great deal of trouble with the potential for unnecessary distractions that may overshadow the pedagogical benefits for undergraduates.

A simpler technique, especially when dealing with undergraduate students, is to use the regular classroom walls for the posters during one normal meeting time. The same public relations benefits of a public event can be attained with a few photos taken of the room and the posting of two or more poster presentations on a public website after the poster day. A practical consideration with using classrooms is the type of wall material. At my school, interior walls can handle duct tape or strong masking tape without any damage. Existing chalk and/or bulletin boards are usually up to the challenge in other situations. Taping opaque construction paper to glass windows or wood and attaching plain paper sheets with clear tape is another option.

As with any classroom technique, students need to understand the specific expectations of a poster session, especially because they so rarely encounter these presentations (outside optional research days in the sciences or their own science fair experience in grades K-12). The course syllabus should give ample credit for poster sessions for students to take it seriously.

On the other hand, the instructor should stress that overspending at Kinko's is no substitute for good content and attractive presentation. In my experience, poster session participants with interesting methods and results done on standard printer paper (using appropriately large fonts) are often more deserving of credit than a mediocre report produced on a \$20 large-scale photocopy that requires only very few pieces of tape to mount.

Hess and Brooks (1998) suggest the option of requiring a two-page summary handout to be prepared before the poster session, unless the primary objective is to allow students to improve their work. In the latter case, summary sheets can be required after the poster session, or in lieu of formal term papers. The idea is to reward the execution of the study rather than solely the write-up.

To encourage participation, I require students to submit at least two follow-up

questions about another student group's research, demonstrating that they interacted with that poster session. I also tell the students that they will be tested on the general findings of all poster sessions, including their own. Given the importance of socializing among college students, it typically is not difficult to get them to interact (it is certainly easier than among adults at a professional conference).

In terms of evaluation, students in my class are surveyed about their preference of informal interactive sessions versus formal presentations and what steps might be taken to improve the poster session. Students have been unanimous in their preference for poster sessions.

Conclusion

In my experience, the main benefit of classroom poster session is that the accompanying term paper (or short summary) becomes less a focus than the actual presentation, which has the potential to communicate research in a more compelling manner while eliminating lengthy markup of papers (which are not frequently read by the students anyway, after they see their grade). The strengths and weaknesses of a group presentation are more evident during an interactive session, when observers other than the instructor can provide feedback.

Another benefit is that all students in the classroom are exposed to all of the other research in a manner that is neither linear (i.e., boring) nor labored (i.e., too much reading). Having a poster session makes research seem fun to the students, in my experience. Maybe it's because there is no formal presentation (e.g., no lecture, no group presentation, no video).

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