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Technology Talks: clickers and gender in the classroom¹

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Clickers are gaining popularity around college campuses, but research on clicker use in the classroom has been limited thus far. However, the manner in which clickers are used in the classroom seems to vary widely. Mark James¹ studied use of grading incentive in different sections of astronomy, with students in some sections getting points simply for clicking any answer, and other sections earning more points for clicking the correct answer. In our study, different sections again had different grading schema and groups were recorded periodically during discussions. Two points were given for a correct answer (1 point for incorrect) in section one, and two points for any answer in section two. Similar to James' results, we have found that students in section 1 are more likely overall to choose the correct answer than students in section 2. In section 2, students are more likely to choose the answer they think is correct, possibly because there is not threat of losing points due to choosing incorrectly. Talking amongst group members was encouraged in both sections, and 7 randomly chosen groups were recorded during the semester. There were 3 recording all semester. The recorded data was broken down by gender, in order to measure how gender dynamics affected the dialogue. Preliminary results show that group members were all contributing equally to the discussions, regardless of the overall gender makeup of the group, or the section (and hence the grading scheme). This result seems to be at odds with that found by Adams² *et al.* (2002), which involved classroom observations of student groups. Additional data will be analyzed from this course and further compared to the findings of Adams.

1. M. James, *American Journal of Physics*, **74**, 689 (2006).
2. J. P. Adams, G. Brissenden, *et al.* *Astronomy Education Review* **1**, 25 (2002).

¹In collaboration with Anneke Metz and Eric Gustavson, Montana State University, Bozeman.