

How to Best Use Clickers (CPS) As an Assessment Tool

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Background of Project

I had already begun to use clickers in my classroom and had wanted to do a project that focused on testing formats and cheating.

Research Questions and Findings

How do clickers compare with more traditional ways of formal assessments?

My data analysis revealed that achievement did not increase on exams simply by using the clickers instead of a more traditional method. However, students do prefer to take their exams with the clickers even if achievement does not necessarily improve.

What other testing formats are available for use with the CPS?

The student-managed assessment mode is the best to use with clickers when giving a formal exam for two reasons: 1) Each student has their own copy of the exam and 2) Students are able to work at their own pace. This mode also allows the instructor to type the test in word rather than into the CPS software. My student surveys also revealed that students find it more difficult to cheat on these exams.

How can I use the CPS to ask higher-level questions since they are formatted to assess using a multiple-choice format?

This question was answered through attending a “Clicker II” workshop in Boulder run by Len Scrogan. Much of this information was presented during our assessment class last week as well. I also surveyed my students about the higher order thinking tests and found that they felt the HOT-Q tests to be both more challenging and more able to test what they actually knew about the readings.

How can I eliminate/prevent students from cheating on assessments while using the CPS systems during formal assessments?

This survey was both disheartening and useful in terms of what I learned. A shocking 87% of my students said they had observed cheating with the clickers and another 40% said that they themselves had cheated while using the clickers. The good news was that 65% of the students said that the student-managed assessment mode discourages cheating, as do HOT-Q questions.

Implications for Practice

Testing formats:

- Use student-managed assessment mode instead of teacher managed mode
- Use Higher Order Thinking Questions throughout exams to challenge students and prevent cheating.

Academic Dishonesty

- Use student-managed mode and HOT-Q questions in exams
- Include clicker procedures and expectations in your class syllabus
- Discuss appropriate clicker behavior and your expectations about clicker use at the beginning of the school year.