

Classroom Response Systems in Social Work Education

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Agenda

- Introduction to Classroom Response Systems (Clickers)
- Background: Clickers in Social Work Literature
- Research Study
- Conclusions and Recommendations

What are Clickers?



CPS Clicker (RF)

Sample Clicker Questions:

Have you used clickers before?

A. Yes

B. No

Clickers are expensive.

- A. Strongly Agree
- B. Agree
- C. Neutral
- D. Disagree
- E. Strongly Disagree

R1: What was the rate of improvement in attendance when clickers were used in lecture classes?

- A. From < 20% to 100%
- B. From < 50% to > 80%
- C. From < 80% to 100%
- D. From < 20% to > 80%

CQ1: How confident are you with your answer?

- A. Very confident
- B. Confident
- C. Somewhat confident
- D. Not confident at all

BENEFITS

- Increased participation
- Active engagement
- Learning support/perception
- Better appraisal/formative assessment
- Anonymity
- Attendance
- Fun/Easy to use

CHALLENGES

- Technology problems
- Learning curve
- Questioning skills
- Class time
- Classroom management
- Cost
- Standardization

“Disadvantages are minor when compared to advantages.”

Background

- Social work literature currently lacks any reference to the use of and/or efficacy of CRS in social work education.
- It is important to investigate this promising and technology to enhance learning in the typically smaller classes covering the different areas of the generalist social work foundation curriculum.

Research Questions

- Are clickers accepted by social work students?
- How difficult or easy to use are they for students?
- What did students like and dislike about using clickers?
- What was the perceived impact on learning?
- How does having a disability impact clicker use?
- How easy/hard are different systems for faculty to use?
- What do faculty think of use of clickers in the different curriculum areas?

Method

Clicker used in two different types of classes and using 2 types of clickers. Total N=61 students*

Research course N= 20 (most basic clicker)

Practice Course (2 sections) N= 30 for one section and N= 11 for second section (clicker with more features)

**Note: Not all students answered all questions*

Method

Factual and opinion questions posed to students

Used in 1-3 class sessions

Survey Instrument

- 9 question survey focused on:
 - frequency of use
 - ease of use and
 - impact on learning
- Most questions were close-ended questions, for example:
 - Using the clicker was:
 - Extremely easy
 - Easy
 - Neither easy nor difficult
 - Difficult
 - Extremely difficult

Survey Instrument

- Open-ended questions asked students to explain their responses and to note what they did and did not like about using the clickers
- A special section on the end asked students with any disability to note whether their disability affected clicker use.

Demographic Information

| | |
|-------------|-------------|
| Average Age | 32.38 years |
| Gender | |
| Female | 93.4% |
| Male | 6.6% |

Results: Frequency of Use

| | |
|--------------------------------------|-------|
| Responded to every question | 98.3% |
| Responded to come questions | 1.7% |
| <i>No difference between classes</i> | |

Results: Ease of Use

| | |
|--------------------------------------|-----|
| Extremely easy | 85% |
| Easy | 15% |
| <i>No difference between classes</i> | |

What students liked about using the clicker system in class (41 students)

Administered during a 90-minute course review session for a final examination. Directions were provided before administration, and instructor familiarized 1 blind student to clicker unit before class. Below (n) represent response frequency, not number of students.

1. Clickers enhanced student participation & interaction (n = 18)
 - *"I liked that it made the class interactive and [the] discussion that came from the clickers."*
2. Clickers enhanced enjoyment of class (n = 17)
 - *"It made the information much more entertaining."*
3. Student anonymity in answering questions (n = 13)
 - *"I liked the fact that I could answer the question and not be afraid of being wrong."*

What students liked about using the clicker system in class (41 students)

4. Tested knowledge of course material & helped students prepare for exams (n = 13)
 - *"It helped me see where I needed to study in. Also, it helped me recognize how I was doing."*
- Enhanced understanding of course material (n = 11)
 - *"It gives us a chance to review and discuss in case we are not fully understanding the lecture materials. It allows us the opportunity to better grasp key concepts and ideas."*

What students disliked about using the clicker system in class

1. Imperfect technology:
 - *“Some students’ responses were not received by the receiver, contributed to some delays.”*
 - *“Software program did not allow students to “skip” questions – [instructor] required all students to respond to all questions.”*
2. Lack of anonymity, e.g., instructor *could* assign clickers to students and reveal each students’ responses
3. Uneven participation:
 - *“Sometimes discussion wasn’t as informative. People seemed to simply ‘click’ and then allow the professor to do the talking.”*

Results: Did using the clicker help you learn the class material?

| | |
|--------------------------------------|-------|
| Yes | 96.6% |
| No | 3.4% |
| <i>No difference between classes</i> | |

Results: Student Recommendation regarding Clicker use

| | |
|------------------------|-------|
| Would highly recommend | 90.2% |
| Would recommend | 6.6% |
| Neutral | 3.3% |

Chi-square analysis did result in a statistically significant difference between groups. All the "neutral" responses were in the research class as were 3 of the 4 "would recommend" responses. Thus, there were no negative recommendations in any class, just more variation in the research class.

Results: Use by students with a disability

- A few students revealed physical challenges, such as blindness, history of broken back and neck, and wrist nerve damage.
- However, there were only 2 responses that identified difficulty using the clickers:
 1. *"It was a little hard to press the buttons."*
 2. *"The power button automatically shuts off and I could not see the light. I was not sure if my answer was being recorded unless I asked someone if my light was still on."*

Faculty Opinions

- ALL students were required to pay attention and engage while using Clickers
- \pm 5 students typically participate in class, Clickers increased participation to 100%
- Clickers facilitated discussion of the questions *and* answer options & rationales
- In this age of laptop computers, iPods, iPhones, Nintendo, etc., clickers help keep students stimulated/engaged in class can be facilitated via use of Clickers

Faculty Opinions

- System 1 was easy to use for faculty and students
- Student enthusiasm was evident, the room was buzzing with excitement, students looked forward to more clicker questions
- It provided a rare glimpse into the reality of how much students were understanding concepts- typically much less than assumed!

Summary

- Regardless of course type, clicker system type and previous exposure to clickers, students overwhelmingly enjoyed & recommended clickers and said they enhanced learning in the class

Conclusions & Recommendations

- Engagement, interaction, & anonymous feedback versus use for attendance and evaluation of students.

Conclusions & Recommendations

- More research is needed to evaluate the impact on student learning outcomes in the various areas of Social Work curriculum
- Issues of how students with disabilities are more or less enabled by these devices needs attention
- Even if all it did was make class more fun, these clickers are probably worth it!