# Clickers in the Classroom: An Active Learning Approach[[1]](#footnote-1)

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Good Ideas

Clickers in the Classroom: An Active Learning Approach

Further research will determine whether clickers complement or surpass other active learning approaches in improving learning outcomes

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Current research describes the benefits of active learning approaches. Clickers, or student response systems, are a technology used to promote active learning. Most research on the benefits of using clickers in the classroom has shown that students become engaged and enjoy using them. However, research on learning outcomes has only compared the use of clickers to traditional lecture methods. Although learning outcomes are higher when using clickers, the question is whether the clickers or the active learning pedagogies are the cause. For this reason, I conducted a study that compared learning outcomes resulting from the use of clickers versus another active learning method—class discussion. Even though both techniques employ active learning, would using clickers increase learning outcomes more than another active learning approach? Two key features distinguish clicker use:

* Clickers provide a mechanism for students to participate anonymously.
* Clickers integrate a "game approach" that may engage students more than traditional class discussion.

The study also investigated students' perceptions of their learning using clickers versus classroom discussion.

Best Practices for Implementing Clickers in the Classroom\*

1. Keep slides short to optimize legibility.

2. Keep the number of answer options to five.

3. Do not make the questions overly complex.

4. Keep voting straightforward—systems allow complex branching, but keep it simple.

5. Allow sufficient time for students to answer questions. Some general guidelines:

* Classes of fewer than 30 students: 15–20 seconds per question
* Classes of 30 to 100 students: 30 seconds per question
* Classes of more than 100 students: 1 minute per question

6. Allow time for discussion between questions.

7. Encourage active discussion with the audience.

8. Do not ask too many questions; use them for the key points.

9. Position the questions at periodic intervals throughout the presentation.

10. Include an "answer now" prompt to differentiate between lecture slides and interactive polling slides.

11. Use a "correct answer" indicator to visually identify the appropriate answer.

12. Include a "response grid" so that students know their responses have registered.

13. Increase responsiveness by using a "countdown timer" that will close polling after a set amount of time.

14. Test the system in the proposed location to identify technical issues (lighting, signal interference, etc.)

15. On the actual day of the session, allow time to set out clickers and start system.

16. Rehearse actual presentation to make sure it will run smoothly.

17. Provide clear instructions on how to use the clickers to the audience.

18. Do not overuse the system or it will lose its "engagement" potential.

1. # Clickers in the Classroom: An Active Learning Approach

   <http://www.educause.edu/ero/article/clickers-classroom-active-learning-approach> [↑](#footnote-ref-1)