

Introduction to Clickers

Part 2: Implementation

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Outline

Part 1 (August 30, 2018)

- Setting up the technology
- Reasons for using clickers
- Lecture notes → clicker questions

Part 2 (today)

- How to ask a clicker question
- How to respond to the students
- Novel uses of clickers

Things I will share

- These slides
- Additional resources on clicker 'best practices'

Some Resources

Handbook

Tips

Reaction Suggestions

(some of these are a bit outdated but contain still good stuff)

Let's play

Read the back of the clicker and change the frequency to 'AD'

Clicker Q: I want to use clickers for:

- A) Checking if the students are following/understanding
- B) Assessing their prior knowledge
- C) Correcting Misconceptions
- D) Encouraging group work
- E) Stimulating whole class discussion

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- A) Checking if the students are following/understanding
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Any other reasons?

Asking a Clicker Question

The Clicker “song and dance”

- Display or write the question (don't read it aloud)
- “Take 1 minute to think about this on your own”
 - or “feel free to discuss with your neighbour”
- *Instructor can walk around, listens to conversations, facilitates as desired*
- “Ok, click in, I'm going to close the poll”
- Respond

Responding to the Graph

Clicker Q: How many ways can you think of to respond to the graph?

A) ≤ 2

B) 3

C) 4

D) 5

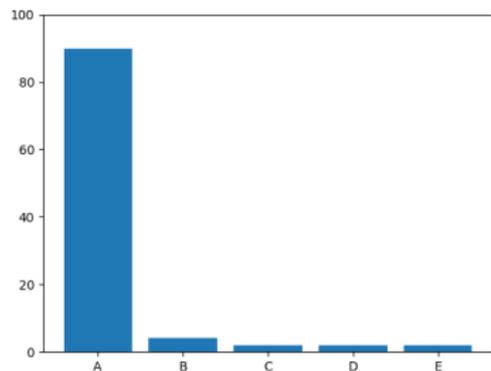
E) > 5

Responding to the Graph

A few response strategies

- Validate the correct answer. Brief justification. Move on.
- Validate correct answer. Ask students for an explanation.
- Show results. Narrow the options. “Find a different opinion and come to a consensus”
- “Can I hear an argument from B”
- “Can I hear an argument for why not C?”
- Exclude an answer: “Lots of B’s ... that’s not the answer”
- Give a hint and ask them to re-vote.

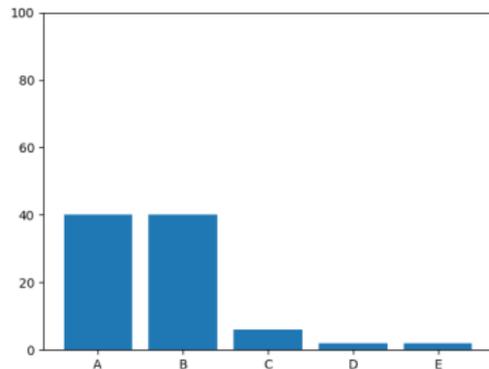
How to respond when... (A is correct)



Consider:

- Don't show graph
- Validate, explain, move on
- Validate, ask students for explanation

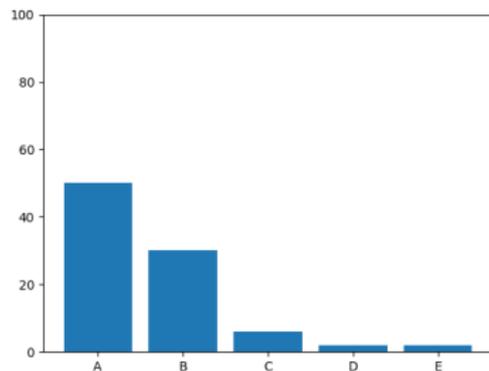
How to respond when... (A is correct)



Consider:

- Show graph
- “Talk with you neighbours and come to consensus, vote again.”
- “Can I hear arguments from both sides?”

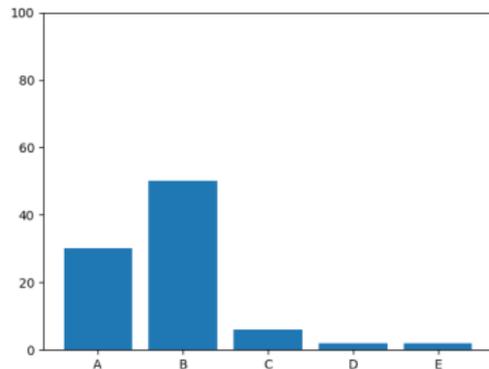
How to respond when... (A is correct)



Consider:

- Don't show graph
- "Lots of A's & B's. Talk with you neighbours and come to consensus, vote again."
- "Can anyone explain why one might pick B?"

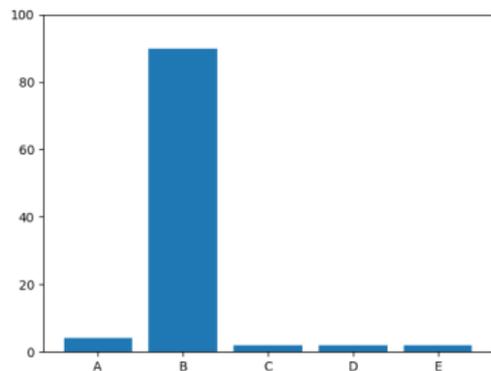
How to respond when... (A is correct)



Consider:

- Show graph
- Talk with your neighbours and come to consensus, vote again.”

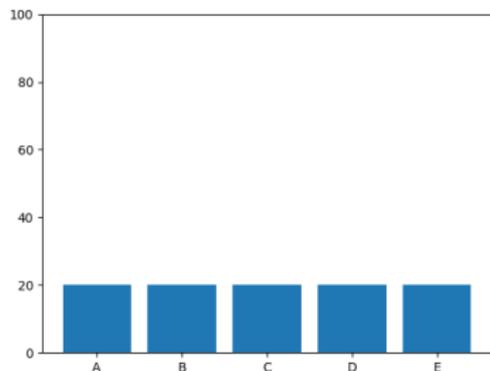
How to respond when... (A is correct)



Consider:

- Check to make sure you're not wrong
- Show graph
- "Can someone explain their reasoning for B?"
- "B is actually wrong, try again."

How to respond when... (A is correct)



Consider:

- Show graph
- “Is the statement of the question unclear?”
- “Can anyone exclude one of the options?”
- Give hint and try again.
- “Starting with A, what are the merits or issues with each choice?”

Some Other Ways to Use Clickers

Student poll

- Set Office Hours
- Informal Student Evaluations

Asses Confidence

- A) True (high confidence), B) True (low confidence)
- C) False (high confidence), D) False (low confidence)
- E) "I don't know"

Gauge progress through a problem

- A) Working, B) Done, C) Stuck

Reflection

- The most important point about today was...

Clickers!

Feel free to come to me with questions or for support.

And thanks!

Reasons for Using Clickers

Some advantages:

- If they know it - move on
- Enhances group work (eg. pairs)
- Easier to start a conversation
 - Do you like 'A' or 'B'?
- Enriches class discussion
 - Student questions/comments will be deeper
 - You'll hear from more students
- Student commit to an answer
 - And will be more likely to change their opinion if they chose wrong
- General polling
 - Set office hours
 - % of class that is lost or confident/not confident

A few points to bring up:

- Talk to your students about why you're using clickers
- Have a clear pedagogical goal in mind

Clicker Q: Should you give grades for getting the correct answer?

A) Yes

B) No