“Plickers” as a Formative Assessment Tool

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Bailey L. Marasti (BSED ’18), Jung Colen
Yong S. Colen (yscolen@iup.edu)
Question: The below line graph shows the distance a swimmer is from the dock over a period of 20 minutes. The largest change in distance occurred between:

A. 0 and 5 min.
B. 5 and 8 min.
C. 12 and 17 min.
D. 17 and 20 min.
Plickers in Action
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# Plickers in Action

<table>
<thead>
<tr>
<th>Card #</th>
<th>Student Name</th>
<th>Total %</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sean Courtemanche</td>
<td>0%</td>
<td>B</td>
</tr>
<tr>
<td>2</td>
<td>Dean Farabaugh</td>
<td>100%</td>
<td>D</td>
</tr>
<tr>
<td>3</td>
<td>Jared George</td>
<td>100%</td>
<td>D</td>
</tr>
<tr>
<td>4</td>
<td>Abigale May</td>
<td>100%</td>
<td>D</td>
</tr>
<tr>
<td>5</td>
<td>Kelly McCloskey</td>
<td>0%</td>
<td>A</td>
</tr>
<tr>
<td>6</td>
<td>David Pudder</td>
<td>0%</td>
<td>A</td>
</tr>
<tr>
<td>7</td>
<td>Katie Treese</td>
<td>0%</td>
<td>A</td>
</tr>
<tr>
<td>8</td>
<td>Anita Whalen</td>
<td>0%</td>
<td>B</td>
</tr>
<tr>
<td>9</td>
<td>Guest 9</td>
<td>0%</td>
<td>A</td>
</tr>
</tbody>
</table>
Outline of the Presentation

• Plickers in Action
• What Is Formative Assessment? And Why?
• Instructors’ Feedback on Plickers Use
• Students’ Feedback on Plickers Use
What Is Formative Assessment? And Why?

Formative assessment is any assessment task designed to **promote students’ learning**. These tasks give both teachers and students **feedback**, so that **teaching and learning activities can be altered** according to the results. Formative assessment is different from summative assessment, the goal of which is to measure mastery. Research indicates the following conclusions:

- Formative assessment that occurs within and between instructional units (medium-cycle assessment) as well as within and between lessons (short-cycle assessment) has been **shown to improve students’ achievement**.
What Is Formative Assessment? And Why?

• In classrooms where medium- and short-cycle formative assessment was used, teachers reported greater professional satisfaction and increased student engagement in learning.

• Formative assessment produces greater increases in student achievement and is cheaper than other efforts to boost achievement, including reducing class sizes and increasing teachers’ content knowledge.

(Based on *What Does Research Say the Benefits of Formative Assessment Are?* (2007) by The National Council of Teachers of Mathematics)
Instructors’ Feedback on Plickers Use

• All you need is a computer, your phone, and the cards.

• You can choose to add any questions you’ve ever created to your queue.

• The Plickers is an accessible formative assessment.

• Students love “playing.”

• It is easy to see the reports (i.e., cumulative student progress).

• Users may encounter some glitches in the app.
Instructors’ Feedback on Plickers Use

• I used the Plickers to survey my students’ favorite project ideas.
• It was very convenient to use as I didn’t have to set up so much. I only printed out the cards and created the questions on my phone.
• I liked how one student’s response cannot be seen by other students.
• It was nice that students didn't have to take their phones out to participate.
• It would be great if I could connect the app to my classroom computer.
Students’ Feedback on Plickers Use

- Easier than writing answers, not a test, fun activity, could change the answer, difficult to cheat, no need to rush, helped to review the material.

- It’s not a real test. It’s better than a worksheet. It’s almost like a game.

- 75% liked seeing their answer next to their name, while 25% did not.
Students’ Feedback on Plickers Use

• I feel that the use of the Plickers is a good educational tool. It creates a fair opportunity for everyone to vote. Also, you are not pressured into choosing something because nobody really sees the answer that you picked.

• I think this tool is very helpful in creating groups.
Students’ Feedback on Plickers Use

• If I don’t hold the card right, it might take the wrong answer, have to make sure your hand isn’t covering your card’s code, it is hard to cheat but some students still do.

• It was a little confusing on which “puzzle” (card) side to have up because it was hard to see.

• Time-consuming (Took a little too much time scanning all of the cards).