Modern Muddiest Point: the use of polling apps to enhance classroom dialogues in large groups

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What is the idea?

The use of interactive polling technology to assess students' learning is a quick and easy way to engage students in developing their metacognition in large lectures or other classes, particularly
where it is otherwise challenging to implement flipped or active learning.

Why this idea?

This is a very easy way of making large group classes interactive. By combining polling technology (e.g. Poll Everywhere) with the metacognitive technique known as the “Muddiest Point”, you can gather real-time student feedback on their own learning.

The Muddiest Point asks students to identify what they find most unclear (“muddy”) or confusing about what they are learning:

“Regular use of the Muddiest Point in classrooms, which requires only a few minutes, sets a tone that confusion is a part of learning and that articulating confusions is not done solely to inform the instructor, but also to inform students themselves; students can use identified confusions to drive their independent learning or to generate dialogue” (Tanner, 2012, p. 116).

Polling technology has proved popular with both students and lecturers and has positive effects on student engagement and learning (Rose, 2019).

Students can enter their responses via an anonymous online poll, quickly and clearly informing the instructor about their learning. No special equipment is required: students can use their own mobiles or laptops.

Running these interactive polls over several lectures creates a classroom dialogue around topics that are interesting or challenging, even in a large cohort in which students are otherwise intimidated from asking questions. Additionally, it can be used to feed forward to later lectures, and ask students questions which test their prior learning.
How could others implement this idea?

These instructions are for Poll Everywhere, which is a popular platform with both students and instructors (Shon & Smith, 2011), but any polling technology can be used. Most of them allow a limited number of users for free. For larger groups you may need a paid subscription: check what your University offers.

Generally, this method is effective if deployed e.g. in a didactic lecture, at a suitable point. This could be the beginning (e.g. covering topics from a previous class), the middle (e.g. discussing a topic just covered in the class before moving onto a different topic), or at the end (e.g. consolidating the content of the class).

Preparation before class (5 minutes)

Set up the poll in advance of the class. If using Poll Everywhere, login and follow their guidelines, which are very simple, but there's a detailed written instructor guide here if you need it: https://www.polleverywhere.com/instructor-guide

In your account, click “+Activity” to generate a new poll. For the Muddiest Point, I recommend selecting the “Q&A” option. This allows students to enter freeform text. Importantly, it also allows them to upvote other answers: this can quickly identify the question they most want answered or the topic that everybody found challenging.
Give it a title to prompt answers, e.g. “What do you find most confusing about Topic X?”

Once the poll is created, you can change various settings, found on the right hand side. Some you may find useful are making the poll anonymous, and filters such as e.g. enabling moderation.

You can also choose whether to embed your poll in your Powerpoint presentation or just have it open on an internet tab.
In class (10-20 minutes)

Activate your poll at the appropriate point (don’t forget to display it on your screen) and you’re ready! The link for the students is displayed at the top of poll screen.

Once students have entered their answer, you can close the poll, and then answer their questions. You can of course always keep the poll running in the background, as a way to collect ongoing questions, but this is less useful for generating discussion.

Collecting responses takes no more than 5 minutes; responding to them and generating discussion takes 5-20 minutes depending how detailed you get! If you find you can’t cover all the questions, don’t be afraid to revisit them in a later session.

Transferability to different contexts

As this technique is so simple to use, and does not take much time, it is very versatile. It can be used for almost any discipline in the humanities or STEM subjects, and you can bring it into many different classroom environments, such as seminars, workshops or even practical sessions.

This method is also perfect for engaging students in online classes, and where blended learning (simultaneous online and in person) is occurring.

You can also combine this technique with other tools; for example, you might set a problem on a Padlet board in advance of the class, and then use the polling system to generate discussion.

Links to tools and resources

- PollEverywhere guide contains all you need to set up your poll,
plus ideas, and “how to” webinars: www.polleverywhere.com
• Padlet: www.padlet.com

References


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Figure 2. Screenshot of an example poll screen from Poll Everywhere, with the title “What do you find most confusing about topic X?” by Jo Richardson is used under CC-BY 4.0 Licence
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Dr Jo Richardson completed her doctorate at Cambridge University in 2005, subsequently spending several years in developmental biology research. She has been a Lecturer in Biochemistry at Sussex since 2016, teaching across a range of modules, with class sizes from 6 to 300. She has received three institutional teaching awards.