

Polling and interaction tools for teaching

Polling technologies are an easy form of inviting and building greater interactivity into your teaching, through which you can pose questions or other tasks to students to which they can respond individually. You can then use their responses to provide feedback and direct your teaching. Traditionally they would have been popular in lectures with large cohorts but are also a useful way to keep people engaged and interested in remote teaching sessions. If you are using live remote teaching sessions, bear in mind that not all students will be able to log in so you may also like to think about how you can make use of these tools or their benefits asynchronously.

The main tools used for polling are listed below*, including Poll Everywhere for which we now have an institutional license for. You can use different platforms based on their specific strengths, your L&T approaches, and your audience just make sure you test them before your session!

	Fully Featured and Institutionally Supported	Fun, Quick and Easy to Use	Fun, Quick and Easy to Use	Fun, Quick and Easy to Use	Embedded within Video Conferencing	Embedded within Video Conferencing
	Poll Everywhere	Kahoot	Mentimeter	Socrative	Live poll in MS Teams	Zoom
Summary	The University's fully-featured student response system, ranging from simple MCQ to more complex forms of interaction and reporting. Operates through website, or a PowerPoint add-on that gives seamlessly interactivity within the presentation. Use this solution if you use a larger number of questions that you wish to prepare in advance including mixed-media, use developed pedagogies, need after-presentation reporting, or the reliability of an institutionally supported system. A really nice feature is the in-built QR generator through which students can use to respond via a secondary mobile device in parallel to a desktop computer/laptop during a video conference. To get started see the Poll Everywhere log-in instructions	Kahoot! is a game-based learning platform that makes it easy to create, share and play learning games or trivia quizzes in minutes. Kahoot awards points to the fastest responder and those who get the correct answer with a leader board at the end of each question, and an overall winner at the end of each game. To get an idea of what it's capable of watch this What is Kahoot!? video . To get started sign up for an account at Kahoot.com	A fresh take on polling through a website. Fast and easy to setup interactions with attractive and innovative question types. The free version is severely limited in number of questions that can be used in a presentation and users would need to self-fund paid-for licenses through their department. However, a lot can be done with just two questions. To get started sign up for an account at Mentimeter.com	A formative assessment tool that helps teachers and learners to assess understanding and progress in real time in class through the use of quizzes, questions and reflection questions. To get started sign up for an account at Socrative.com	Teams allows live polling in a Meeting or within the text conversations. This is a developing area but currently it is required to create the poll within the Posts area in parallel to the meeting, with the poll appearing in the text chat inside the meeting. Only one multiple choice or 'true/false' question can be posted live at a time. The responses are also shown live. To get started you will be using Microsoft Teams and to create a poll follow Create a poll in Microsoft Teams .	Zoom also includes a polling system. You'll need to set up the poll by logging into your Zoom account online. Only hosts and co-hosts can initiate polling. To get started access your University of Liverpool Zoom account and follow Polling for meetings to set up a poll.
Method of Response	Web – customised URL or QR code App (iOS/Android) SMS voting	Web – randomised joining code App (iOS/Android) Embedded in MS Teams. You can find more here: Engage with Kahoot!	Web – randomised joining code	Web – customisable room name App (iOS/Android)	Students/participants can see the poll live in the chat/channel area and click on the options they want	A pop-up polling window that appears within the meeting for students to vote.
Licensing	The University's institutional license allows staff to run an interactive slide with 20,000 responses.	Free – maximum responders 50 Pro - £3/teacher per month, Premium - £6/teacher per month No accounts are required for students Kahoot! are offering premium access for free during COVID-19 outbreak until institutions re-open	Free – maximum 3 questions per presentation Basic - \$6.99 per month, unlimited questions, export data No accounts are required for students	Free – maximum responders 50, no private room, and only launches one activity. Pro - \$99.99 per year with extensive options No accounts are required for students	The University has bought an institutional license	The University currently has a license for Zoom which supports 300 participants in a single session.
Key Question types	Multiple Choice, Multiple Answer, Survey, Word Cloud, Hotspot (Clickable image), Open-ended responses, Upvoting	Multiple Choice, Quiz, Jumble, Survey, and Discussion	Multiple Choice, Word Cloud, Open-ended, scales, ranking	Multiple Choice, True /False, Exit tickets, short answer	Multiple Choice	Multiple Choice or Multiple Answer
Team-based learning and games	Competitions and team leaderboards – students can contribute points from responding correctly to a team	All Kahoot games can be ran in team mode, players join a team and respond together	Competitions for individual responders	Yes, when using the Space Race quiz option	No	Competitions for individual responders
Options for asynchronous use	Survey question types can be answered in students own time. For more information see: How to create shiny new Poll Everywhere surveys .	Student paced games are available. More info here: Starter guide to distance learning with Kahoot!	Presenter or Audience-paced	Quizzes can be released earlier to students and only closed when the instructor chooses the activity.	No	N/A
Reporting	Extensive reporting as charts and raw data (.csv) in aggregate or individual responder. Easy to compare year-on-year data	Excel reporting is available within the free version, more extensive reporting with the paid accounts.	Only with paid accounts, export to CSV etc.	The whole class report can be downloaded/emailed as an Excel file. Report for each student or question can be emailed or downloaded as PDF.	Live results are be updated in the team/chat area. Full reporting as charts and raw data (as individual or aggregate responses) can be accessed via the Forms app/website. Data can also be exported to Excel.	None available
How would it work for a remote live (synchronous) teaching session	Set up your interactive questions in advance either through PowerPoint or on the web. Launch polling. Provide students with a weblink or a QR code, and invite them to visit it either within another browser window or on a mobile device to vote. To present and talk about the results of the poll share your screen through your video conferencing software	Create your challenge and set your questions Set a deadline for game completion Copy the link and share with students or give them the game PIN By joining your game via a link or PIN, students play it at their own pace on a computer or mobile device.	Prepare presentation Launch polling and share weblink with participants to respond. Screenshare to bring up and discuss votes. See this site for extensive range of ideas: Mentimeter - Tools for Remote Working .	Class code can be given to the students to take part, you can choose the setting to show the result for MCQ instantly. For True/False questions you can ask the question during your teaching and students can use the web link/app to respond. Space race result can be shared through sharing your video conferencing software	If you hold your class session in MS Teams, you can add the poll in the chat area by following these steps: Create a poll in Microsoft Teams . You cannot set/input the question beforehand, and you can only post one question each time.	Set up your poll in advance of the session. Launch the poll in the Zoom meeting and chose how long students have to answer questions. Results of the poll can be shared with participants after it is closed.
How could it be used	For formative assessment – allow students to check understanding and get feedback Surveying – Explore opinion to generate discussion or to drive contingent teaching.	Teamwork, formative assessment, feedback, revision, students can create their own games	For formative assessment – allow students to check understanding and get feedback Surveying – Explore opinion to generate discussion or to drive contingent teaching	Teamwork, formative assessment, feedback, surveying, Icebreaker	Voting Simple formative question True/False	For formative assessment – allow students to check understanding and get feedback Surveying – Explore opinion to generate discussion

* Other polling tools are available and may be being used within departments. Other notable platforms are: Vevox (Meetoo), TurningPoint, Top Hat, Twitter

Stretch Activities – tools to consider if you would like to go beyond polling

If you'd like to build on your experience of using polling to explore further vehicles for active-learning, take a look at these other tools used commonly at the University for synchronous teaching and learning.

	Surveys	Collaborative Working	Digital Whiteboarding	Digital Whiteboarding	Visual Collaboration	Visual Collaboration
	Microsoft Forms	Office365	Microsoft Whiteboard	Zoom Whiteboard	Padlet	Miro / MURAL / LucidChart
Summary	<p>Building on the quick polls you may already use, you could also ask student to fill out a fuller-form survey on which students can take more time to provide responses. Microsoft Forms is an ideal platform for this, part of Office 365, allowing educators to create surveys with ease with attractive data reporting, and also quizzes with automatic marking and feedback.</p> <p>To get started, you can create Forms within Microsoft Teams, through OneDrive, or directly on the Microsoft Forms website (login with username@liverpool.ac.uk)</p>	<p>Office365 allows collaboration on Word, PowerPoint and Excel documents from within a browser window, meaning multiple users can author and contribute to single document in real-time. It's a great space for breakout group tasks and construction of group assignments.</p> <p>Create collaborative O365 documents through Microsoft Teams, OneDrive or Canvas. Have a look at this video: An Introduction to Microsoft Teams for Teaching and Learning.</p>	<p>Microsoft Whiteboard is a digital interactive whiteboard that enables freeform brainstorming and collaboration. It provides a simplified interface within Microsoft Teams or is available as a fuller-featured version downloadable through the Microsoft Store for Windows and iOS as an App</p>	<p>Meeting participants can annotate on a shared screen as a viewer or the one that started sharing your screen. You can also use annotation tools when sharing or viewing a whiteboard. You can find more support here: Using annotation tools on a shared screen or whiteboard.</p>	<p>Padlet is a popular versatile online notice board that can be used with students to post notes, gather opinions, conduct simple voting, etc. There are great templates and because students can contribute to Padlet boards just through a link (not needing an account) it's blissfully easy to use. A great way to try out Padlet is to use it to host a task for students in preparation of a teaching session.</p> <p>Padlet has been popular within UKHE for a number of years, however it's levels of accessibility has fallen behind, so you may need to be aware of this before use.</p>	<p>These three different platforms are very similar tools, providing an easy to use platform for free form, visual collaboration. You could use them to guide discussion, or within groupwork for system design, brainstorming, project planning etc.</p> <p>At this time, it is very difficult to recommend one over another: Functionality - They all offer similar Accessibility - They all offer a similarly poor accessible experience Integration - MURAL and LucidChart are integrated into the university's Microsoft Teams (in addition to website access) so may be nicer to use with students Link sharing - so that you can share the URL link with students and allow them to contribute without needing account - LucidChart appears easiest to do this within the Free version.</p> <p>To get an idea of how they work Miro website MURAL website LucidChart website</p>
Accessibility (how does platforms perform with common accessibility tools such as screen reader or keyboard operation. Has passed web standards)			Apparently quite strong especially via the app. Have a look at this website: Veronica With Four Eyes		Not great, screen readers work, there is limited keyboard operation – but they're working on it. Accessibility statement: Accessibility and Padlet .	Miro Accessibility (Not great) MURAL Accessibility (Not great) LucidChart Accessibility (Slightly better)
Licensing	The University has an institutional license through Office365	The University has an institutional license for Office365	The University has an institutional license for Office365.	The University has an educational license for Zoom.	No university license, but you can create a free account at the Padlet website . The basic account is free but limited to 3 Padlet board (which you can clear out and reuse). A Pro version costs £8 per month for an unlimited number of Padlets and additional benefits	Miro: Free limited educational account MURAL: Free limited Classroom license LucidChart: Free account (limited to 3 charts) which can be upgraded to an educational account
Student enrolment	None required. Share the form either via link or QR code	None required. Users can either share documents directly from within OneDrive , Microsoft Teams or Canvas. If a document is set up in Teams, all members of the Team/Channel will have edit access automatically.	Students can join during a meeting or use a shared link	Students automatically get access to the whiteboard when joining the zoom meeting.	None required. Padlet wall can be shared via a link with editing access, however posts will be anonymous. Alternatively, you can require students create an account in order to monitor activity.	Miro: With an educational licence no need to sign up MURAL: 25 external guests (no sign up). 100 students (with free student account) can collaborate at the same time
Ideas for its use	<p>A form could be used for formative assessment, or it could be used to survey student opinion. Reports are created automatically and are very attractive and visual creating an excellent conversation starter. The reporting is very nice for staff including an average completion time, ideal to us to persuade students to undertake an activity.</p> <p>You can design quizzes that participant can see the results immediately after responding to the form, or discuss the answers in the next session. This way it can be used in asynchronous teaching.</p> <p>Add Forms to a Class type Team Give students a QR code or a link to your form</p>	<p>Any collaborative Office365 document can be useful in any group project work such as production of written work or a presentation. Team members will enjoy always being able to edit and contribute their ideas to the live document. Staff will enjoy being able to drop-in to provide advice and feedback as the project comes together.</p> <p>Collaborative documents could also be used for shared class notes.</p> <p>Students can work on documents in real-time during a teaching session. The work can then continue out of class, students don't need to be on the same device or in the same location.</p>	Brain storming, whiteboard Collaboration, group work, Planning, etc.	Brain storming, whiteboard Collaboration, group work, Planning, etc.	<p>You can ask students to post their ideas, or opinions about a specific topic, that they complete asynchronously. Ideas include asking them for instance about their preconceptions or aspirations from learning about a topic. Templates available include one where students can position posts upon a world map, this could be used by students to contribute findings from different contexts. Share the link to the Padlet board in Canvas or VITAL. Draw upon their responses within subsequent teaching.</p> <p>Or use it as a resource within a live teaching session, asking them to complete a question by posting their responses, or use it to carry out group work in breakout tasks. Students can vote or comment upon the posts of others.</p>	Brain storming, whiteboard Collaboration, group work, Planning, etc.

If you are interested in learning how you can use these tools in your L&T sessions, or want to learn some tips and tricks to bring more active learning approach to your teaching, you can join our workshop 'Active e-learning with polling tech and beyond' which is coming soon. Watch out for mailing from CIE or look through our [CIE event listings](#).

What other polling tools are you using? We'd love to hear cie@liverpool.ac.uk

