

## Incorporating Voting Systems in Teaching

*Change the pace of your teaching and check everyone is clear*

### What are they?

An 'Electronic Voting System' (EVS) is a system that, at its most basic, allows presenters to ask multiple choice questions, receive answers from the audience and display the collated data immediately.

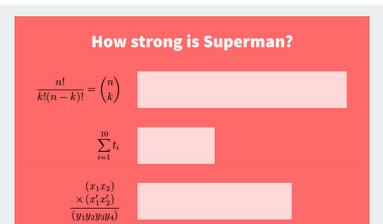
Sometimes called Personal Response Systems (PRS) or just 'clickers', the EVS encourages students to become more active in lectures and, as they are able to respond privately, those students who are normally reluctant to contribute can do so without feeling that they will be 'singled out' to explain their answer.

### What systems are available?

There are two main types of EVS currently available: one using dedicated handsets and software, and the other working over the internet through apps and webpages.

### Handset-based systems

These systems use a small, dedicated handset combined with software to integrate the presentation of the questions and results into PowerPoint slides. The handsets are similar to a telephone keypad and allow the students to select from up to 10 options, the results of which are automatically collated (often in real-time) and displayed within a PowerPoint slide. The slides can be saved at the end of the session and the voting results permanently embedded within them.



*embed responses from Poll  
Everywhere in PowerPoint*

*TurningPoint 'clicker' handset*

### Advantages

- integrates directly into PowerPoint
- smooth transition into voting activities
- results stored back into slides for future reference
- students don't need to use their own smartphones, tablets or laptops to take part
- not dependent on Wifi in the room
- students can submit multiple times or change their response over time

### Disadvantages

- mainly suited to large lectures using PowerPoint
- planning necessary to ensure handsets available when needed
- handsets may need to be distributed and collected during the session

## Internet-based systems

Internet-based systems offer more flexibility in use by allowing students to use their smartphones, tablets and laptops to contribute rather than a dedicated handset. As a result of using these more advanced and versatile devices, the interaction can be more complex, such as by allowing students to select from different images or to type and submit words or phrases. These systems can often also present the responses in a randomised order to mitigate against students submitting without thinking about their response.

### Advantages

- wider range of response types than multiple choice
- students use their own devices - no handsets to manage
- voting can take place over a longer period - allowing collated votes from split cohorts
- can be used as part of a wide variety of session types

### Disadvantages

- reliant on access to the internet, such as through Wifi or mobile data
- transition into voting activities less fluid

## How can they be used?

While an EVS is typically used to check students' understanding in a lecture, providing instant feedback to the lecturer that enables misunderstandings to be immediately addressed, there are many ways that an EVS can be used as part of teaching. Some of these other methods of using voting systems in a teaching session include:

### Enabling students to select the focus of the session

At the start of the session, a number of options for the potential focus of the session, or the method in which it will be delivered, can be presented to the students, who will vote on their preferred option, with the most popular option being used to inform the running of the session.

## Identifying changing attitudes during a session or a video

Some handset-based systems can be used to continuously log responses over a prolonged period of time by allowing each handset to submit multiple times. An example of where this could be useful is by gauging the changing mood of the cohort while watching a video or listening to a piece of audio. This information can then be charted and used to analyse the original resource.

## Identifying strength of feeling or confidence in a controversial statement

By using a Likert scale as the voting options, students can indicate how strongly they support a statement that has been presented to them. Once the votes have been collated, they can then be explored immediately or used to inform the later parts of the session. One particularly useful way to do this is to present a pre-test at the beginning and a post-test at the end of the session, as this can help to identify how the new information that they have been presented with has influenced their opinions.

## Small group discussion and feedback

Rather than vote individually, the students are required to form small groups with those sat around them to discuss the question or statement in more depth. In this configuration the voting system is used for reporting back the prevailing view of the group. This is an effective technique to encourage discussion even when it would be possible for everyone to vote individually. The call to vote from the lecturer helps a group to arrive at its decision.

This method is particularly useful when there aren't enough handsets for every student to have their own, or not all students have a device with them to use the Internet-based systems, but it can also be.

## Getting started and further information

Handset-based systems are available in several lecture theatres around SHU that have Turning Point handsets integrated into them, including Peak at City Campus and Herbert Wing 1 at Collegiate. In addition, portable sets can usually be booked through faculty TEL teams for use in other rooms.

There are two free main Internet-based systems designed for use within education offering a variety of different question types beyond multiple choice:

- Socrative (<http://www.socrative.com>)
- PollEverywhere (<http://www.polleverywhere.com>).
- Comparison of other online voting systems on the PollEverywhere website: <https://www.polleverywhere.com/vs>
- You might like to look at this selection of similar tools,
  - **Nearpod.com** – Nearpod allows you to create interactive live or asynchronous lessons based upon your PowerPoint presentations
  - **Getkahoot.com** – Kahoot has a more playful game-based approach and is simple to use
  - **sli.do** - use Slido to create multiple choice, open text and range polls. Share presentations with your students in real-time using any device. See in real-time which ideas resonate the most with your students.

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