

Title: **Hands-on practice – using the Polleverywhere Electronic voting System as a tool for student engagement in the classroom**

Presenter: **Darren Gash**
University of Surrey

Session Learning Outcomes

By the end of this session, delegates will be able to:

- Create, present and respond to questions using the 'Polleverywhere' Electronic Voting System (EVS)
- Identify the educational benefits and applications of EVS for their practice

Session Outline

Electronic Voting systems (EVS) enable teachers to rapidly collect display and evaluate student responses to questions posed during class (Bruff, 2009). They can be used, for example, to assess student understanding at critical points in a lecture (Draper et al, 2002) and facilitate peer discussion (Mazur, 1997). The ability to respond anonymously can encourage wider student participation (Cutts and Kennedy, 2005).

Polleverywhere (www.polleverywhere.com) is one such system which is being trialled at the University of Surrey as an alternative to their existing 'clicker' based EVS. With Polleverywhere students use their own device (e.g. mobile phone, smart phone, tablet, laptop) to respond to various question types (e.g. multiple choice, open ended, 'clickable' image) via text message or web browser. Results are displayed on screen in real time via a web page or PowerPoint presentation.

Polleverywhere has been shown to have a positive impact on student learning (Voelkel & Bennett, 2014). Importantly, from a staff development perspective, it is perceived as convenient, simple to use and quick to setup for both students and teachers (Gash, 2014).

This hands-on session offers delegates the opportunity to experience Polleverywhere from the perspectives of both students and teachers:

- As a student: respond to questions using a mobile device
- As a teacher: create and present a series of questions for response**

The benefits and challenges of EVS from student and staff perspectives will emerge through participation and discussion as the session progresses, and contextualised with reference to

existing research. Additional online resources will be made available after the session for delegates wishing to explore the system in greater depth in their own time.

** To use Polleverywhere as a teacher during the workshop delegates will need a Wi-Fi or 3G enabled laptop or netbook. NB: Although Polleverywhere can be administered using tablet devices such as iPads, from personal experience this is not recommended.

Session Activities and Approximate Timings

The outline of the workshop is as follows;

1. Pre-session activity for delegates who wish to create and present questions during the session (30 minutes). This involves:
 - Setting up a free Polleverywhere account
 - Configuring Polleverywhere for academic use
 - Designing 2-3 questions to use during the session

(NB: a link to download instructions on how to complete these steps will be made available later)

2. In-session activities
 - Introduction (5 minutes)
 - Brief introduction and outline of context
 - Responding to questions (10 minutes)
 - This section provides delegates with the opportunity to try the system out as students responding to questions and to reflect on the educational benefits
 - Creating and presenting questions (25 minutes)
 - This section provides delegates with the opportunity to try the system out from the perspective of teachers and to reflect on the educational benefits. Participants will create sets of questions that can be presented (subject to completion of pre-session activity) and responded to by other delegates
 - Reflections (5 minutes)
 - Round-up of proceedings based on participants' experience of using Polleverywhere, with consideration of the benefits, applications, challenges etc. of using it for learning and teaching, *with reference to existing research.*

References

Bruff, D (2009) Teaching with Classroom Response Systems. Creating Active Learning Environments. San Francisco: Jossey-Bass

Cutts, Q & Kennedy, G (2005) 'The association between students' use of an electronic voting system and their learning outcomes', Journal of Computer Assisted Learning (Wiley) 21(4) pp.260-268

Draper et al (2002) Use of the PRS (Personal Response System) handset at Glasgow University. Interim Evaluation report: March 2002 [Online]. Available at: goo.gl/55EX4I (last accessed 30th April 2014)

Gash, D (2014) Report on the feasibility of Polleverywhere as a replacement for Surrey University's existing TurningPoint clicker based EVS [unpublished report]

Mazur, E (1997) Peer Instruction: A User's Manual (Prentice Hall Series in Educational Innovation). Essex: Pearson

Voelkel, S & Bennett, D (2014) 'New uses for a familiar technology: introducing mobile phone polling in large classes', *Innovations in Education and Teaching International* (Routledge), 51(1), pp.46-58