Electronic voting systems in lecture theatres

Steve Draper, Quintin Cutts Handout for 8 Dec 2004,
talk at 3:30pm to a Learning and Teaching forum, Godfrey Thomson Hall, University of Edinburgh

Extensive information, including reports and published papers, at:

http://www.psy.gla.ac.uk/~steve/ilig/

Pedagogical applications

1. Assessment, both formative and as practice for summative assessment.
2. Formative feedback on learning within a class (i.e. within a contact period).
3. Formative feedback to the **teacher** on the teaching i.e. "course feedback".
4. Peer assessment.
5. Community mutual awareness building.
6. Experiments using human responses: e.g. in psychology, physiology, medicine, economics etc.
7. To initiate a discussion (e.g. using "brain teaser" questions).
8. "Contingent teaching": making a presentation/class depend on difficulties identified by a diagnostic question tree.

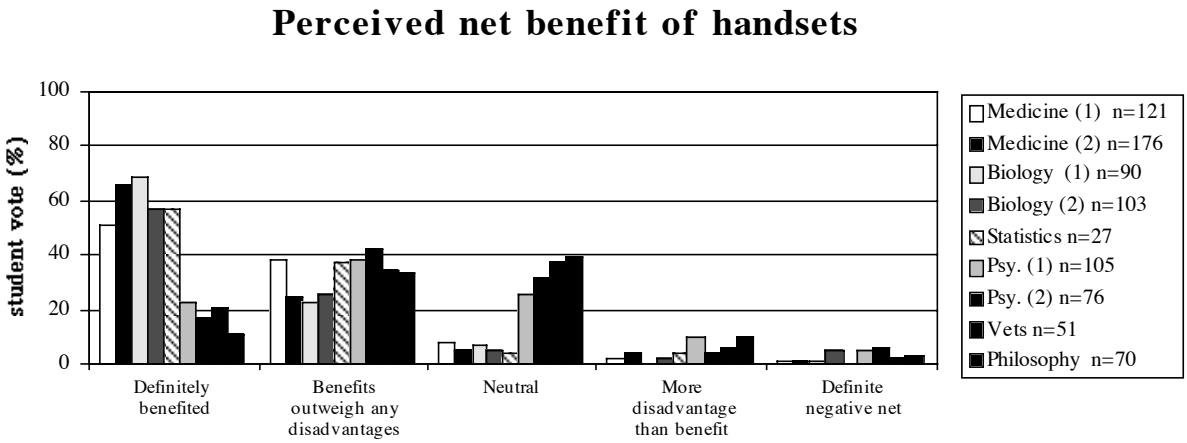
Uses at University of Glasgow in first two years (2001-3)

Department	Level	Target class size	Lectures x repeats
Computing Science	1	450	20 x 2
Dental School	CPD	18	1
Life sciences	2	300	1 x 2
Life sciences	2	150	1
Medicine	3	250	3
Medicine	4	250	1
Philosophy	2	100	9
Psychology	4	40	3
Psychology	1	500	3 x 2
Psychology	3	100	5
Statistics	1/ 2	200	9
Veterinary Medicine	4	100	1

Summary

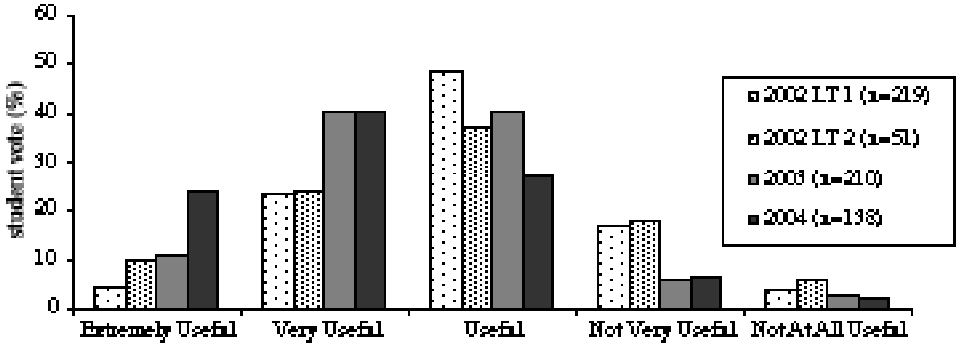
- We've already tried it in a wide, and still expanding, variety of subjects.
- Systematic evaluation by a trained and paid evaluator
- Almost always, teachers and students both judge it to be a worthwhile enhancement when asked. This is evidence based on attitude measures
- In at least one case (statistics) attendance increased from about 20 to about 80 (out of 200)
- At Strathclyde, first year dropouts in mechanical engineering were nearly eliminated
- A variety of different pedagogic benefits possible in principle
- Benefits increase with the skill of the presenter.

Overall, a modest but measurable improvement, applicable across a wide range of teaching contexts.
(Cf. central heating, a colour not black and white monitor for your PC, ...)



Responses to the net value question in assorted classes. The "n" shown is the subset of the class present and responding at the time the evaluation question was put.

In later studies this question about net benefit was asked directly whenever possible: "What was, for you, the balance of benefit vs. disadvantage from the use of the handsets in your lectures?" with the response options from "definitely benefited" through neutral to "definite negative net value".



Answers from three successive years (two parallel groups in the first year) to "How useful do you think the handsets are?" in Computing Science. Suggests that benefits may increase with lecturer experience.

EVS at Edinburgh

There is EVS equipment (for audiences up to 100 only) that can be borrowed for teaching:

See: http://www.elearn.malts.ed.ac.uk/services/CAA/PRS.phtml (6)50 4097

Or book it at: elearnhelp@ed.ac.uk

Or contact Nora.Mogey@ed.ac.uk