Ways to improve learning with EVS:

Some deep procedures for teachers and what software features matter for these Steve Draper, Nov 2010

[This handout, and the slides, are available from: http://www.psv.gla.ac.uk/~steve/talks/evs7.html]

Extensive information, all references cited here, reports, published papers, and a video of a class using EVS at:

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

References

Question design advice: http://www.caacentre.ac.uk/resources/objective_tests/

Bowskill, Nick For information about Nick and his research and Student generated induction using EVS see http://www.psy.gla.ac.uk/~steve/bowskill/

Cutts, Quintin http://www.dcs.gla.ac.uk/~quintin/

- CAA Centre (2002) Assertion-reason questions [WWW document] URL http://www.caacentre.ac.uk/resources/objective_tests/assertion.shtml (visited 31 Aug 2008)
- Crouch, C.H. and Mazur, E. (2001), "Peer Instruction: Ten years of experience and results" *American Journal of Physics* 69, 970-977
- Draper, S.W. (2009) "Catalytic assessment: understanding how MCQs and EVS can foster deep learning" British Journal of Educational Technology vol.40 no.2 pp.285-293
- Drysdale, T. (2007) Results of mini-evaluation study http://www.psy.gla.ac.uk/~steve/ilig/papers/drysdale1.pdf
- Gardner-Medwin, A.R. (2006). Confidence-based marking: towards deeper learning and better exams. In C. Bryan & K. Clegg (Eds) *Innovative Assessment in Higher Education* London: Routledge.
- Gibbs, Graham (2010) Dimensions of quality (HE academy)
- Hake,R.R. (1998) Interactive-engagement versus traditional methods: A six-thousand student survey of mechanics test data for introductory physics courses *Am.J.Physics* 66(1), 64-74
- Howe, C., McWilliam, D. & Cross, G. (2005) Chance favours only the prepared mind: incubation and the delayed effects of peer collaboration *British Journal of Psychology* 96(1), 67-93
- Howe, C.J., Tolmie, A, and Rogers, C. (1992) The acquisition of conceptual knowledge in science by primary school children: Group interacting and the understanding of motion down an incline *British Journal of Developmental Psychology* 10, 113-130
- Hunt, D. (1982) Effects of human self-assessment responding on learning J. of Applied Psych vol.67 pp.75-82
- Mazur, E (1997) Peer Instruction: a user's manual London: Prentice Hall
- Meltzer, D.E. & Manivannan, K. (1996) "Promoting interactivity in physics lecture classes" *The physics teacher* vol. 34 no. 2 p.72-76.
- Miller, A. & Cutts, Q. (2006) "Teaching formal methods using and Electronic Voting System" pp.3-8 in *Proceedings of the Formal Methods 2006 Symposium* (McMaster University, Hamilton, Ontario, Canada) [http://www3.di.uminho.pt/FME-SoE/FMEd06/Preprints.pdf]
- Miyake, N. (1986) Constructive interaction and the iterative process of understanding Cog Science (10)2, 151-177
- Russell, Mark (2008) "Using an electronic voting system to enhance learning and teaching" <u>Engineering</u> <u>Education</u> vol.3 no.4 pp.58-65
- Smith,M.K., Wood,W.B., Adams,W.K., Wieman,C. Knight,J.K., Guild,N. & Su,T.T. (2009) Why peer discussion improves student performance on in-class concept questions *Science* 323 2 Jan. 2009 pp.122-124