

## Publications on Assessing Students in the Science and Engineering Disciplines

The references listed below are arranged by School, and were compiled by Dai and Jenny Hounsell as a resource for participants taking the Assessing Students option of the Postgraduate Certificate in University Teaching. The aspects of assessment flagged in the right-hand column (see the key immediately below this note) reflect the particular themes highlighted in the Assessing Students option. However, as will be apparent, many of these are directly related to formative assessment.

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eA	=	focuses on e-assessment
FG	=	focuses on guidance and feedback to students
GT	=	focuses on assessing groups and teams
IO	=	introduction to/overview of assessment in the subject
PO	=	focuses on assessing portfolios
PR	=	focuses on assessing presentations
RA	=	a course-based initiative to reconfigure assessment practices to enhance learning
SI	=	focuses on student involvement in assessment

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### SCIENCE AND ENGINEERING

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#### Biological Sciences

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- Falchikov, N. (2002) 'Unpacking' peer assessment' in Schwartz, P. and Webb, G. (eds.) *Assessment: case studies, experience and practice from higher education*. Kogan Page, pp. 70-77 SI
- Harris, K-L., Krause, K., Gleeson, D., Peat, M., Taylor, C. and Garnett, R. (2007) *Enhancing Assessment in the Biological Sciences: Ideas and resources for university educators*.  
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- Heylings, D. and Tariq, V. (2001) 'Reflection and feedback on learning: a strategy for undergraduate research project work.' *Assessment & Evaluation in Higher Education* 26.2 pp. 153-165 PO, FG, SI
- Huxham, M. and Land, R. (2000) 'Assigning students in group work projects. Can we do better than random?' *Innovations in Education and Training International* 37.1 pp. 17-22 GT
- Langan, A., Wheeler, C., Shaw, E., Haines, B., Cullen, W., Boyle, J., Penney, D., Oldekop, J., Ashcroft, C., Lockey, L. and Preziosi, R. (2005) 'Peer assessment of oral presentations: effects of student gender, university affiliation and participation in the development of assessment criteria.' *Assessment & Evaluation in Higher Education* 30.1 pp. 21-34 SI, PR
- Orsmond, P., Merry, S. and Reiling, K. (1997) 'A study in self-assessment: tutor and students' perceptions of performance criteria.' *Assessment & Evaluation in Higher Education* 22.4 pp. 357-369 SI
- Orsmond, P., Merry, S. and Reiling, K. (2004) 'Undergraduate project work: can directed tutor support enhance skills development?' *Assessment & Evaluation in Higher Education* 29.5 pp. 625-642 FG
- Orsmond, P. (2004) *Self- and peer-assessment: guidance on practice in the biosciences*. Higher Education Academy Centre for Bioscience: Teaching Bioscience: enhancing learning series. SI

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- Peat, M. and Franklin, S. (2002) Supporting student learning: the use of computer-based formative assessment modules. *British Journal of Educational Technology*, 33.5, pp. 515-523 eA, FG
- Peat M Taylor CE and Franklin S (2005) Supporting learning in large undergraduate cohorts through IT based feedback. In: McLoughlin C and Taji A Eds. *Teaching in the Sciences: Learner-centred approaches*. New York: Haworth Press, pp. 157-177 FG
- Ricketts, C. and Wilks, S. J. (2002 ) 'Improving student performance through computer-based assessment: insights from recent research.' *Assessment & Evaluation in Higher Education* 27.5 pp. 475-479 eA
- Stefani, L., Tariq, V., Heylings, D. and Butcher, A. (1997) 'A comparison of tutor and student conceptions of undergraduate research project work.' *Assessment & Evaluation in Higher Education* 22.3 pp. 271-288 PO, FG
- Stefani, L. (2006) *Effective use of IT: guidance on practice in the biosciences* Centre for Bioscience, Higher Education Academy: Teaching Biosciences: Enhancing Learning Series. www.bioscience.heacademy.ac.uk eA
- Tariq, V. , Stefani, L., A., Butcher. and Heylings, D. (1998) 'Developing a new approach to the assessment of project work.' *Assessment & Evaluation in Higher Education* 23.3 pp. 221-240 PO

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- Price, G. (2006) Computer aided assessment and formative feedback – can we enhance students' early experience at University? *Wavelength*, Newsletter of the Higher Education Academy Physical Science Centre, 2.1. eA, FG  
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- Williams, K. (2005) 'Lecturer and first year student (mis)understandings of assessment task verbs: Mind the gap.' *Teaching in Higher Education*, 10.2, pp. 157-173 FG

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- Davis, L., Harrison, M., Palipana, A. and Ward, J. (2005) 'Assessment-driven learning of mathematics for engineering students.' *International Journal of Electrical Engineering Education* 42.1, pp. 63-72 eA
- Scott, N. and Judd, K. (2002) Efficient continuous online assessment of large classes: continuous diagnostic assessment in engineering and mathematics subjects. *Assessing Learning in Australian Universities* online case study. eA, FG  
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- Stewart, B. and Nesbitt, A. (2005) 'Quality assessment of BSc engineering honours projects at Glasgow Caledonian University.' *International Journal of Electrical Engineering Education* 42.1, pp. 52-62 PR

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### **Mechanical Engineering**

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### **Mathematics for Engineering**

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Dwyer, C. (2001) 'Linking research and teaching: a staff-student interview project.' *Journal of Geography in Higher Education* 25.3, pp. 357-366 GT

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Healey, M., Matthews, H., Livingstone, I. and Foster, I. (1996) 'Learning in small groups in university geography courses: designing a core module around group projects.' *Journal of Geography in Higher Education* 20.2, pp. 167-180 GT, PR

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Livingstone, D. and Lynch, K. (2000) 'Group project work and student-centred active learning: two different experiences.' *Studies in Higher Education* 25.3, pp. 325-346 GT

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Gent, I., Johnston, B. and Prosser, P. (1999) 'Thinking on your feet in undergraduate computer science: a constructivist approach to developing and assessing critical thinking.' *Teaching in Higher Education* 4.4, pp. 511-522 PR

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McGettrick, A. and Mansor, N. (1999) 'Standards and levels - a case study.' *Assessment & Evaluation in Higher Education* 24.2, pp. 131-140

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*compiled by Dai Hounsell and Jenny Hounsell, September 2007*