

Development and evaluation of a multimedia web resource using computer mediated communication (CMC), as a tool for learning and teaching in a research project module

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Within medical and allied health professional education, there has been a growing trend, and national recommendations have been made, to integrate the use of communication and information technologies (CIT) into curricula^{1,2}. Suggested reasons for this include those of pedagogy, organisation and transferable skills³.

The aim of this project was to develop and evaluate a multimedia web-based resource (a resource collection and an asynchronous, text-based CMC workspace) to support final year physiotherapy students and staff during a research project module.

An action research project composed of development of thematic concerns, action and evaluation was undertaken to develop and evaluate the web resource. Students were not randomised to two intervention groups, but rather, a more natural approach was taken, with no enforced regime of interaction with the technology. The perspectives of both students and staff were reflected in the resource development. CMC was achieved through Basic Support for Cooperative Work (BSCW, version 4), a web-based conferencing system. A prototype of the web-based resource was developed and evaluated. The final resource was linked to the Department's web pages and the Learning Server for access on and off campus.

Evaluation at the end of the academic year showed that staff (n=15) and students (n=54) welcomed the web-based resource. There was no difference in the modular marks for this cohort of students, compared to the previous year. Students rated 'preparation' and 'organisation' of the module, more highly. A reported strength was the use of a wide range of resources to support the learning experience. Most students used the resource '2-5 times' (44.4%), followed by 'more than 5 times' (35.2%). There were no significant differences between males and females ($\chi^2=2.89$, $P=.591$) nor mature and younger students ($\chi^2=.098$, $P=.754$). There was a trend towards a difference in use between those who considered themselves confident computers users and those who did not ($\chi^2=3.744$, $P=.053$). The most frequently used components of the resource were online lists and full-text examples of previous projects, guidance on writing and frequently asked questions. 50% of the students (n=27) used the BSCW discussion workspace to view existing discussion, but only 26% actually contributed. Staff felt the resource was a good idea, yet only 7 used the resource and 2 contributed to the discussions.

The resource appeared to facilitate flexible learning and there was some evidence of more resource-based learning and peer support. Recommendations from this project will be presented.

References

¹ Garner Project. Scoping information management needs in occupational therapy and physiotherapy. July 1999. The Chartered Society of Physiotherapy and The College of Occupational Therapists

²Eva KW, MacDonald RD, Rodenburg D, Regehr G (2000) Maintaining the characteristics of effective clinical teachers in computer assisted learning environments. *Advances in Health Sciences Education* 5: 233-246

³Steeples C, Jones C (2002) *Networked learning: Perspectives and Issues*. Springer, London

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