Reviewer's report

Title: A Randomized Trial Comparing Digital and Live Lecture Formats

Version: Date: 18 August 2004

Reviewer: David J Steele

Reviewer's report:

General

This is a well designed and well executed study. It is clearly written and it addresses an important issue in the delivery of didactic content in clinical education using a distributed model of medical education. The authors are to be congratulated for seizing this opportunity to conduct a creative piece of educational scholarship.

Although this study has been conducted with considerable care, I still have reservations based on the following:

• The sample size is small (I am only partially “mollified” by the power analysis)
• The fact that control and experimental subjects were not exposed to the “same” educational intervention, no matter how similar the content and objectives may have been between the live presentations in 2003-2004 and the recorded presentations from the previous year.
• No information is provided on the psychometric properties of the examination used to assess learning outcomes. This information should be provided.

The authors acknowledge these weaknesses and do their best to account for them in their analysis of the data and discussion of findings. However, I do not feel that the authors should be as confident as they appear to be that this study demonstrates that the asynchronous modules are equally as effective as the live lectures. The fact that there is a statistically significant difference in the variance between the two groups with the CD-ROM module group showing the greatest degree of variance suggests that something more may be going on here, though, once again, given the small sample size this may be nothing more than sampling error.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Assuming that the examination used to assess learning outcomes has been used with a much larger sample of learners, the authors should be able to do an item analysis and say something about the performance characteristics of the examination. I believe they should report this information in a revision of their paper. If the examination is sound, my recommendation would be to publish this paper, despite its limitations.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

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Discretionary Revisions (which the author can choose to ignore)
What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

None