Reviewer's report

Title: Evaluation of a web-based ECG-interpretation programme for undergraduate medical students

Version: 2  Date: 17 October 2007

Reviewer: Arnold Hill

Reviewer's report:

General

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

I think that the possibility of 'volunteer bias' should be specifically addressed in the discussion section. 20/32 students in the intervention group voluntarily used the Internet resource, and 17/20 of these completed the assessment, in which their mean score was significantly higher than control. But the higher mean score may reflect the fact than volunteers on the whole tend to represent the better students in the class. The 12 students who didn't use the resource were not assessed further- would the mean score actually have been higher than control had the non-responders also been tested? Especially since 25/30 in the control group sat the test- a wider sample than 17/20 'volunteers'.

However this potential bias, provided it is acknowledged, should not invalidate the study findings, although it does make them appear less robust. Would a randomised study have been feasible? Probably not...

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

Discretionary Revisions (which the author can choose to ignore)

Suggest that last sentence in Background section of abstract be changed as follows: 'Furthermore, Internet-delivered education may be more effective than traditional teaching methods due to greater immediacy, improved visualisation and interactivity'.

Suggest that introductory statements in Background section of paper proper, from the word 'Worldwide' to '...certain electrocardiographic abnormalities' be omitted, since they are broad generalisations without any real relevance to the subject of the paper. Would suggest as opening sentence: 'Our experience, together with existing research, suggests that most medical students do not feel competent in their interpretation of ECG.'
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: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests