Reviewer's report

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

Version: 2 Date: 2 October 2007

Reviewer: Paul Bradley

Reviewer's report:

General

Thank you for asking me to review this article.

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

The article describes an evaluation of a web based ECG interpretation program and includes a comparison between “control” and "experimental" groups with regards to the learning outcome of ECG interpretation.

The paper does not set out an explicit research question to be answered by the study.

There is only numerical description of the students involved in the two arms of the study. There are no descriptive statistics of the demographics of the study populations. It is unclear, but presumed, that both groups are 6th semester Karolinska students, the difference being the site of their rotation. Individual semi-structured interviews are described but there is no mention of an analysis of these interviews and no presentation of qualitative data. There is no indication, if the two locations had shared learning outcomes for their courses, particularly with regard to ECG interpretation. In making comparisons between the two groups is problematic without knowing what and how much conventional instruction was provided. Was the web based training a replacement for potential teaching or an adjunct? There is no indication of variance for the diagnostic test. There is no indication of student learning per se, as there was no pre-test post-test comparison for either group. The authors fail to comment on the potential impact of 15 of the students not participating in the diagnostic test (that is, the 12 who had not tested the program and the 3 who had but who missed the test) might have had on the results. The evaluation that was conducted was extremely limited and at the bottom end of the evaluation hierarchy (Kirkpatrick, 1994). The evaluation mentioned apprehension but prevented only averages for utility and quality.

I am afraid that the methodological weaknesses of the study make the findings non-generalisable.

References

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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)

Figure 3 is too small to read
Figure 4 needs better layout

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Discretionary Revisions (which the author can choose to ignore)

**What next?:** Reject because scientifically unsound

**Level of interest:** An article of limited interest

**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