Reviewer’s report

Title: Internet-based medical education: A realist review of what works, for whom and in what circumstances

Version: 2 Date: 27 July 2009

Reviewer: Jarmila Potomkova

Reviewer’s report:

- Title & structured abstract
well define article type („a realist“ review), target group (doctors, medical students), purpose of the review (help online course developers what offer online and how; end-users how assess e-learning supports; methods are appropriately explained; results show two types of findings (quantitative and qualitative); conclusions emphasize the main message of the review (technology cannot govern the educational process, but rather serve it).

- Methods
A systematic „realist“ review seems to be a suitable and all-encompassing tool to answer the posed question, based on the authors´ past experience and other published literature. The methodological issues can be found in sections Background and Methods. Maybe, it would be better for readers to have substantial and detailed information about „realist“ review in Methods, not in Background. For the authors it would only mean moving some paragraphs to a new position.

- Results
The process of selecting relevant articles is demonstrated in great details, supported by a flowchart. Inclusion/exclusion criteria are evident, data management, analysis and synthesis are in concert with the goals of the review. A particular value is the usage of „candidate theories“ and seeking for new ones, if the existing are not suitable. The authors clearly specify the number of included papers as well as total amount of participants and study designs. Surprisingly, 84% of studies assessed learners’ satisfaction. Of particular importance is identification of „perceived usefulness/relative advantage of online teaching & learning“. This point of view is referred to many times within the manuscript. I would recommend to include another recent reference to emphasize the significance of this issue (eg. Ledden et al., J Business Res 2007; 60:965-974. I am attaching full text of the article).

- Discussion, Conclusions
In my opinion, this is a most practical and attractive section to read. It is summing up the 2 key findings about internet-based courses, emphasizing the interactivity. It also shows strengths
and weaknesses of the review. One of the main achievements seems to be the first attempt to us „realist“ systematic review for medical education research. The challenge for internet course developers is extremely thought-provoking: to develop internet courses as part of the curriculum, not its substitute. Limitation of the review are clearly stated: as one may expect in the context of systematic reviews – it is always heterogeneity of primary studies included in the review.

Note: the text would be easier to read with fewer phrases between parentheses.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**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'.