Reviewer’s report

Title: Pharmacology as a foreign language: A preliminary evaluation of podcasting as a supplementary learning tool for non-medical prescribing students

Version: 1 Date: 27 August 2009

Reviewer: Gig Searle

Reviewer’s report:

1. Is the question posed by the authors well defined?

Not really. The format of the abstract (Background, Methods etc. does not lend itself to a theoretical hypothesis. I would like to see this extended, either in the background section or in the form of an introduction, to define the type of usefulness studied/evaluated i.e. subjective usefulness (includes usability?) and objective usefulness (improved exam results?)

Did the authors start with a working hypothesis based on previous research?

Minor Essential Revision:

The authors should include more theory, particularly with regard to their main concept: learning performance.

They should also reference:


Minor Essential Revision:

Please mention the number of participants in this study in the abstract, rather than waiting until page 10.

This is essential information for potential readers to judge the size and scope of the study – before reading/purchasing the full paper.

For example a short statement - something on the lines of:

“All students (N=134?) attending the course were invited to participate in the study, of those complying with our request/using podcasts (N=69?), we obtained useable data from more than half (N=44?) and the results of their examination was compared to previous years (N=70?)

2. Are the methods appropriate and well described?

Minor Essential Revisions:
On page 7, the authors state:

“The concept of podcasts and information on where to find the podcasts within the virtual learning environment (WebCT) was explained to all students prior to the start of the course”

Since a number of potential readers of this paper are medical, rather than IT, personnel, and since the authors obviously have an explanation of “what is a podcast” prepared for the medical students participating – a précis of this information (2 – 5 lines) would be useful in the paper at this point.

The learning approach is not theoretically substantiated, please provide some background information. (reference?)

Discretionary Revision:

I should personally rather enjoy seeing a flow-chart type drawing – of the matchstick man type – showing the interaction of the various groups and their positions within the study.

Alternately a Venn diagram – stat. universe = all students – would help the reader to obtain an overview of the scope of the study. (see point 1).

3. Are the data sound?

Minor Essential Revision:

The evaluation appears well constructed and the results encouraging. However, a search was necessary to obtain the exact number of participants (see point 1). In addition there was some confusion as to the final numbers.

On page 7, the authors state:

“All students attending the non-medical prescribing course at the University of Nottingham between September 2007 and September 2008 were part of this study”

and:

“the collection of questionnaire data from two successive cohorts of NMP students (n=69) who had access to podcasts of seven key pharmacology lectures”

and on page 9:

“exam results were compared between two cohorts of students who had access to podcasts (n = 64) and two previous cohorts who did not have access to podcasts in their course materials (n = 70).”

while on page 10 they write:

“The total response rate for the questionnaire was 64% (44/69) and was not dissimilar for both of the cohorts (18/30 (60%) cohort one; 26/39 (67%) cohort
two).”

I suggest that this is clarified in the Methodology.
For example on Page 7: “All students” à “All [44/69/134?] students” – or see
Discretionary Revision: @ point 2 (Venn).

4. Does the manuscript adhere to the relevant standards for reporting and data
deposition?
YES. (With the exception of the points mentioned in 1 and 3)

5. Are the discussion and conclusions well balanced and adequately supported
by the data?
Discretionary Revision:
I suggest that the statement, “Exam results appear to back up students
perceptions of improved knowledge” (Conclusions) sounds too insubstantial.
Considering the tables displayed, surely the authors can be more definite?

6. Are limitations of the work clearly stated?
YES. (With the exception of points mentioned in 1)

7. Do the authors clearly acknowledge any work upon which they are building,
both published and unpublished?
YES.

8. Do the title and abstract accurately convey what has been found?.

Minor Essential Revisions:
The abstract fails to convey WHY the authors took on this work.
A working hypothesis, motivation etc. should be added to the background section
and also the driving force of their research (or in an introduction).

Discretionary Revision:
The conclusion section of the abstract is insubstancial (see comment no. 5):
“The results of this study suggest that non-medical prescribing students utilised
podcasts of pharmacology lectures, and have found the availability of these
podcasts
helpful for their learning. There was some evidence that the availability of
podcasts
was associated with improved exam performance.”

Surely this sort of statement belongs in a hypothesis rather than a conclusion –
since it can be inferred from previous research. The authors’ work should enable
them to make more definite statements and draw more substantial conclusions
from the data.

9. Is the writing acceptable?

Minor Essential Revision:

Page 5:

“While reusable learning objects (RLOs) have been used to promote pharmacological understanding, in nurse prescribing students, with some success [16], these tools are time-consuming and expensive to produce”

Please rephrase this, for example: prescribing students with a nursing background, student nurses, etc.

Declaration:

I declare that I have no competing interests.