Reviewer's report

Title: Enhancing Student Learning of Research and Diagnostic Skills in Western Blotting and Muscular Dystrophy using an Adaptive Virtual Laboratory Environment

Version: 2 Date: 19 August 2014

Reviewer: Arianne Dantas

Reviewer's report:

The authors have now addressed all of my concerns which required major and minor compulsory revisions. The issues that were not addressed following my second review (and therefore were included again in my third review) have now also been addressed.

For example, the authors have now clarified that the students completed the evaluation questionnaire upon completion of the practical class (and therefore after completing both the vLAB and the real lab) and not just upon completion of the vLAB as they had previously stated.

Below are only some minor suggestions for possible further improvements to the paper.

Discretionary Revisions

1. The final paragraph of the Background section states what the aim of the vLAB was but it should also state the aim of the study, and in particular that of evaluation of the vLAB. For example, it should let the reader know if the aim was to investigate whether the vLAB was perceived by students to be as useful or to be more useful than the real lab.

2. In the methods section, there are two sub-headings which cover the “interface” (1. Interface and Navigation and 2. vLAB Interface and Environment). Some of the information provided in both of the sub-sections was very similar. These sub-sections should be combined.

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

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.