Reviewer’s report

Title: Comparison of the effectiveness of lectures based on problems and traditional lectures in physiology teaching in Sudan

Version: 0 Date: 07 May 2019

Reviewer: Angelo Dante

Reviewer’s report:

The manuscript deal with the interesting topic of the comparison between lectures based on problems and traditional lectures in the physiology teaching in medical students. The study of the outcomes related to teaching methods alternative to the traditional lecturers is consistent with the international audience interests. However, manuscript show some weakness that threaten the overall quality of the work.

To improve the manuscript, I suggest some revision that I hope you will consider.

Background

In the background section do not emerge if lectures based on problems are utilized in other international context and which outcomes have been reached. Furthermore, I suggest checking the consistence of the study aims with the sentences reported from line 29 to 34, page 8 (methods section). The study aims do not appears complete.

Methods

I suggest reporting method section in a structured way, declaring the study design, the inclusion and exclusion criteria, the year of the study, the efforts conducted to avoid measurement bias. Furthermore, it is important reporting the content of the measurement instruments. Finally, it is not clear what the two quizzes measures. Do they measure students' knowledge?

In my point of view the STROBE checklist could be useful to improve the quality of your report.

Results

To help the reader to comprehend the external validity of the study, I suggest reporting the participation rate. Furthermore, I suggest adding a column to the table 1 in which reporting the p-values. Finally, it is useful reporting the average values and their standard deviation of the two compared quizzes (from line 25 to 37, page 11).
Discussion

In my point of view discussion should be centred on the comparison between LBP and TL, that is the focus of this research, instead of compare LBP with PBL. Finally, I suggest highlighting the limits of this study that did are not discussed.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Unable to assess

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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