Reviewer's report

Title: Interactive whiteboard use in clinical reasoning sessions to teach diagnostic test ordering and interpretation to undergraduate medical students

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Reviewer: Shivesh Prakash

Reviewer's report:
Authors demonstrate feasibility of integrating IWB to CRL sessions. However it is not clear what is the impact of this teaching strategy on skills of students. Also the student's feedback is difficult to make sense of. I say so because the sample size is small and appears convenience based. Also the number of participants providing feedback is not representative of the group. The response rate was only 67%. It should have been > 80%, and ideally with such a small sample size, it should be 100%. The follow-up test on skills is even difficult to interpret as the attrition rate is very significant. Only about 30% of participants were available to assess using pre and post tests. There is potential for bias in the study, as only motivated or engaged students were able to undergo the full study. There is no mention of above loss of data in the study discussion. Whether IWB helped the learning over and above the conventional CRL sessions can only be postulated. I am unable to substantiate arguments to include IWB into CRL sessions, all I can say that its feasible. With small sample size, the selection bias can be an issue - were the groups differed in their test ordering behavior at the baseline? How was the 'appropriateness' of ordered test defined? This is important, as I am not sure whether the control arm over tested or intervention arm under tested? What sought of teaching occurred in regards to clinical reasoning and ordering tests in the control group (clinical mentoring)? In any experimental design the treatment and control arms should ideally be exposed to all other factors which can influence the outcome- the authors do mention that placement in physiology unit may have made the students more sensitized to the ordered tests. Apart from thorough discussion of limitations the discussion should also focus on how this proposal can be further investigated or how the limitations can be overcome.

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.

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

No

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
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