Reviewer's report

Title: Prediction of Academic Achievement based on Learning Strategies and Outcome Expectations among Medical Students

Version: 0 Date: 13 Nov 2018

Reviewer: Gary Beck Dallaghan

Reviewer's report:

This is a review of a manuscript investigating learning methods and motivation as it relates to academic achievement. The following review is intended to help the authors improve their submission.

In general, this was a well done study. You should number pages so the reviews can be more specific. Most of my comments are focused on the Methods section.

Methods:

First paragraph, lines 17-20: Why did you exclude people based on these issues of divorce or death? They certainly impact motivation and can impact learning. Did you think these would be noise in your analysis? You should explain in more detail why you specifically chose to exclude this group.

For the instruments you used, you need to better explain their constructs. You reference the subscales in the tables, but have not taken time to explain them at all in the Methods. I don't know for sure how they are scored, what the subscale scores mean, etc. That's important for the reader to have so we know what these values mean.

At what level training were the students you surveyed? Were they in their pre-clinical education? Clinical?

Where were the surveys administered? In class? Were they paper surveys or via electronic administration?

Results:

How did you get 100% response rates? That is astounding!
Discussion:

The sentence reading: "The reason for this finding can be related...." lacks context. The statement does not fit with the rest of the paragraph and left me perplexed. Where did you identify negative expectations of their field of study?

The two paragraphs that begin with "Ruffing et al. studied the factors affecting...." and "Thiele, however, studied the role..." are unnecessary. They did not add to the discussion.

Conclusions:

The last sentence is not discernible from what you studied. You can't assume learning strategies equate to educational modalities. If you collected that data, I failed to recognize it in the manuscript. Students will develop learning strategies regardless of the modality - so whether it's a lecture or a small group - they have a plan. The relationship is not causal in nature and that's what this sentence implies.

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:

Acceptable
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