Review of: "Assessing students' attitudes and perceptions towards statistical literacy in a university system in a developing African country"

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Potential competing interests: No potential competing interests to declare.

This paper explores an interesting topic and fills a gap in the current literature. I have only a few comments that I have tried not to overlap with feedback from other reviewers, and all are related to methodology. I hope that the authors find these useful.

1. The regression models did not take into consideration demographic differences among the participants. Adding independent variables such as age, gender, SES, department, etc., can increase the proportion of explained variation in the regression models.

2. The authors stated that "items with negative wordings were transformed to positive wordings." Does this mean that the actual wording of the items was modified before questionnaire administration, or just that response categories were inverted for negatively worded items for statistical analysis?

3. Small p values should not be reported as 0.000. Instead, please use "$p < .001$."

4. In section 3.2.1, the interpretation of the adjusted R square value needs some correction. The authors stated that "The low adjusted R value also pointed to the smaller size of the sample." The sample size does not really play a major role in the adjusted R square formula unless n is very small (perhaps less than 30). Given the small number of independent variables and large n in regression models employed in this study, the low adjusted R square values are simply a direct function of low R square values.

5. The authors did not split the dataset into training and testing sets. Thus, the statistics that we see in this paper represent overfit. The generalizable adjusted R square values in new samples are expected to be even smaller than those reported in Table 7.

6. In Table 6, are the reported M values the simple means of items retained for each scale? If yes, then please clarify this in the text.

7. The analysis is not based on a uniform sample size. For example, in Tables 5 and 6, one can see that the sample size fluctuates across items. This is not good practice. The authors should either use listwise deletion to drop all cases with missing values on one or more variables of interest or impute missing values. In either case, only one n should be used

for all statistical analyses in the paper.