Author’s response to reviews

Title: Medical students: what educational resources are they using?

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Author’s response to reviews:

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Editor,

BMC Medical Education

Dear Professor Kononowicz,

Re: Submission to BM Medical Education reference: MEED-D-18-00079R2

Medical students: what educational resources are they using?

Thank you for the time taken to review the manuscript and provision of advice for improvement.

We have addressed the authors comments below, and provided a revised manuscript.
Editor Comments:

Thank you for the submitted revision which addressed most of the comments and improved the quality of your manuscript. Yet, there are still some significant issues left with the way you analyse the data statistically. The point is that in the moment you start to reason on the influence of particular factors on the decisions made by the students or interactions between those factors, you cannot base your conclusions on multiple t-tests only. Your revised manuscript has been evaluated on methodological aspects by a statistical reviewer with his comments to be found below.

Reviewer reports:

Jimmie Leppink, M.Sc., M.Sc., LL.M., Ph.D. (Reviewer 3): Although the manuscript addresses a relevant topic, I do see a rather major issue with the analytic approach that needs revision. It seems that t-tests have been performed on separate survey items. However, we learn little to nothing about the intercorrelation of items in the survey, and that intercorrelation is likely to be quite substantial at least for groups of items. Was any kind of factor analysis considered? Although Cronbach's alpha is reported for one group of items, Cronbach's alpha assumes that the items over which it is calculated measure the same thing to the same extent. Cronbach's alpha is quite a flawed estimator of reliability and McDonald's omega has been identified as a more appropriate alternative, and factor analytic evidence is needed first of all. Factor analysis will shed more light on which items can be grouped together, and that will likely result in a revision of the t-tests and correlations now reported by the authors.

Thank you for these suggested changes, we have addressed this by performing a factor analysis (Principal Components Analysis) to investigate the data set as a whole and the items that group together. We have also removed repeated t-test measures from the analysis and have instead employed a Wilcoxon Signed rank test to assess if there is a difference between the uptake of educational resources for studying new and revising old content.

Thank you for considering these changes. We are happy to make further changes as required.

Yours sincerely,

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