Reviewer’s report

Title: Selection and Academic Success of Medical Students in Hamburg, Germany

Version: 0 Date: 12 Oct 2018

Reviewer: Reviewer 2

Reviewer's report:

PEER REVIEWER ASSESSMENTS:

OBJECTIVE - Full research articles: is there a clear objective that addresses a testable research question(s) (brief or other article types: is there a clear objective)?

No - there are major issues

DESIGN - Is the current approach (including controls and analysis protocols) appropriate for the objective?

No - there are minor issues

EXECUTION - Are the experiments and analyses performed with technical rigor to allow confidence in the results?

Yes - experiments and analyses were performed appropriately

INTERPRETATION - Is the current interpretation/discussion of the results reasonable and not overstated?

No - there are minor issues

OVERALL MANUSCRIPT POTENTIAL - Could an appropriately REVISED version of this work represent a technically sound contribution?

Maybe - with major revisions
PEER REVIEWER COMMENTS:

GENERAL COMMENTS: It is a well executed study, but one that may generate little interest outside Germany since probably no other countries have such major education qualification differences between states. The paper is over-long for the messages it seeks to convey, and the text is rambling and frequently goes off-course. The conclusion at the end of the Abstract is incomplete, but also inaccurate insofar as the data do not support the additional value of the Natural Science test.

The Statistical approach is very sophisticated, but not sufficiently well-described for the average reader. In particular the terminology for the variable are cumbersome and confusing

REQUESTED REVISIONS:

The actual aim of the study in unclear: The Abstract Conclusion implies that the Aim is to test whether the Natural Science Test adds value to selection based on academic criteria alone, but the paper explores many other issues to do with medical school progress. The author need to state the hypotheses they wish to test at the outset, and then present the relevant data in a logical fashion. Then finally restrict the discussion to addressing whether the hypotheses are proven or otherwise. All tangential material and irrelevancies should be omitted.

Currently the take-home message is obscure

ADDITIONAL REQUESTS/SUGGESTIONS:

There are a number of language issues that need to be addressed, for example, stating that a test is "suitable" is ambiguous. Also the word "tap" is used frequently; "measure" would be better.

There are many examples of clumsy prose which have the potential to confuse a reader, e.g., "....by the predictor-outcome correlation based on the sample of the admitted applicants". Also, e.g., "Students admitted.....due to the quota for excellent pre-university educational attainment performed much better...."

The Background section is excessively long, contains many irrelevant sections, and does not state the Aim of the study.

Note: This reviewer report can be downloaded - see attached pdf file.

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.

No

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.

Not relevant to this manuscript

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

Needs some language corrections before being published

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