Reviewer’s report

Title: Identifying culturally acceptable cognitive tests in remote Northern Australia

Version: 0 Date: 20 Apr 2019

Reviewer: Maria Papadakaki

Reviewer's report:

Many thanks for the invitation and the opportunity to review this interesting manuscript from Australia. The authors have invested a lot of time and effort to adapt and validate a number of tools to an aboriginal population. The overall aim of the study was "to identify culturally suitable tests". However, I feel that the locality of the study, the small and convenient samples used as well as the use of very few and specific validation tests (e.g. factor analysis) do not allow generating sufficient evidence and reaching a conclusion on the suitability of all those tools. Some more comments are found below:

1. The authors mention that they explored "construct validity" through carrying out factor analysis. I realize that they aimed at validating certain tools in a specific population by examining their internal structure as well as their discriminant validity against external criterions (gold standards)? If yes, this is not explicitly stated and needs to be revised.

2. An ad-hoc English literacy test was used to investigate whether any tests were detecting literacy rather than cognitive skills. Discriminating between literacy and cognition seems to be an important aspect of this study but it is neglected in the introduction. It needs a more extended justification. Besides that, the authors don't state how their sampling design ensured efficient assessment of discriminant validity.

3. "There were three hypotheses……" These hypotheses refer to the expected outcomes of the statistical tests. But what do these outcomes mean regarding the study objectives? Did the authors try to generate evidence on the validity of these tools? Please make it more clear for the broader readership.

4. When did this study take place? Please add the year.

5. What was the methodology employed for the initial selection of tools?

6. "Thirty people were invited to join consultation groups" - please describe the recruitment strategy.

7. The characteristics of the study sample are not presented. What was the profile of the participants? Please add relevant tables.

8. "Participants rejected the progressive matrices, Tower of London, and Block Design. These were considered confusing and too reflective of non-Indigenous ways of thinking." What did this evaluation process involve? were there evaluation criteria used to assess tool suitability? if yes, what were these
criteria and who set the criteria?

9. "One researcher conducted all testing" - what was the profile / background and training of this researcher?

10. "Overall, feedback to the final set of tests was positive. The use of familiar objects, practice sessions and shorter tasks worked well" - what does "worked well" mean? was this assessment among the objectives of this study?

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.

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

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Please indicate the quality of language in the manuscript:

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