Reviewer's report

Title: Investigating the impact of a research-based integrated curriculum on self-perceived research capabilities of medical students in rural and regional placements: a pre- and post-test analysis of three student cohorts

Version: 1 Date: 4 June 2014

Reviewer: Ellie Schoenbaum

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Major Compulsory Revisions

1. It was unclear to me when the various elements of the research program were offered during the 4 years. Also the 12 month off-site placement was the fourth phase but was that a gap year? How were the phases integrated during?

2. The elements of the program did not adequately describe the mentoring. As mentoring is a central factor in success of medical student research experiences, the absence of student assessment of mentoring is unfortunate. Were mentors asked for evaluations? Was the output of the students work assessed? This may not be the focus of the paper but these would be important elements of the program that would help understand the students' perceptions.

3. I am not surprised that students perceived enhanced knowledge, given the curriculum provided to them. I also agree that the control element of grant writing was not including in their perceived competencies bolsters the finding. However I am concerned that students designed their own projects, chose the methodologies to use, worked with local or med school institutional review boards. This is empowering but may not represent feasible projects or correct analytic methods. Defining a research question is one of the most challenging things for a neophyte. Correctly interpreting results is also not something that should be
unsupervised.

4. Information on the publishing and presenting at meetings belongs in the results. Was this a goal? Was it systematically assessed? It is strong evidence that the program is working.

5. The spider diagrams were interesting but the amount of data presented was too much. Could the differences in cohorts be discussed and not presented.

# Minor Essential Revisions

1. Abstract Introduction: insert “self-perceived” before “research capabilities” in the 4th line. The author can be trusted to make these. For example, missing labels on figures, the wrong use of a term, spelling mistakes.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare I have no competing interests.