Reviewer's report

Title: Meta-analysis, complexity and heterogeneity: a qualitative interview study of researchers' methodological values and practices

Version: 0 Date: 07 Jun 2016

Reviewer: Terri Pigott

Reviewer's report:

I found this manuscript well-written and informative. The findings of the manuscript will contribute to our understanding of how researchers using systematic review think about the issues involved in synthesizing studies on complex interventions. I can also see the direct contribution of the work toward efforts at improving the quality of research syntheses, particularly those examining the effects of complex interventions. It is clear that we need methodological work to help guide researchers in matching methods to the goals and contexts of the research. My only comments concern the ability to generalize the results to researchers trained in research synthesis in the US from the field of education and psychology. My own background and training in meta-analysis from the tradition of Larry Hedges and Ingram Olkin emphasized the importance of carefully examining heterogeneity. The responses of the participants in this study do differ from my own perspective, which I think is due to my experiences in research synthesis in education in the US. Early research syntheses in psychology and education in the US focused on highly variable interventions (what we would now label as complex interventions) where heterogeneity was expected and examined. Conducting this same qualitative interview study with a sample of researchers from education and psychology in the US might reveal different approaches to complexity and heterogeneity.

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