

Interactive comment on “Transforming school students’ aspirations into destinations through extended interaction with cutting-edge research: “Physics Research in School Environments”” by Martin O. Archer et al.

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Many thanks to authors for all of their efforts in putting together this interesting piece of research. I am sure that many of those working in Outreach and Public Engagement in HE could use some elements of this article for their own benefit. That said there are few elements I ask to authors to review. These comments should be seen as constructive and should really enhance the current structure of the article.

C1

We thank the reviewer for their time in reviewing the manuscript and have considered their comments carefully as follows.

1. The Theory of Change (ToC) presented reads well and it follows very closely the Theory of Change published by Davenport et al 2020., in terms of identified audiences, causal paths and terminology. I recommend a more explicit acknowledgement by the authors to Davenport et al 2020. Where I think there is room for improvement is to explain or summarise and assumptions and barriers that often accompany a ToC, as throughout the paper some of these emerge (e.g - researchers or institutional buy-in a barrier to your ToC). Finally the ToC description needs a bit more details. For instance what is the meaning of the different shades of the same colour.

We will more explicitly highlight the Theory of Change of Davenport et al. (2020), which focuses more heavily on careers and interventions at primary and lower secondary school, and contrast it to that for PRiSE. We can add some short notes about basic assumptions made in the Theory of Change and then later in the paper, when describing the PRiSE framework, relate considerations and potential barriers back to the Theory of Change. We will also expand the caption of the Theory of Change to aid in its interpretation. The colours in the figure are for the different audiences considered and the shadings indicate the timeframe of theorised outcomes going from lighter (short- and medium-term) to darker (long-term and impact) with time running vertically from top to bottom.

2. The framework as well described by the authors, feels disconnected from the ToC and more references throughout the text should be made to the ToC especially in section 2.3 and 2.4 For example line 230 to 245 , removal of barriers, involvement of teachers etc, really highlight that these are aspects of your ToC.

We will make more reference to the Theory of Change when describing the considerations made in developing the PRiSE framework.

C2

3. Even though the PRiSE framework has been presented as scalable, what are the lessons learnt by the authors? what are the recommendations to other practitioners in the field? Adding a few paragraphs in the conclusions, or even some bullet points, would address not only the scalability of PRiSE but the transferability of PRiSE to another subject or institution (e.g. - produce a detailed guide for students and teachers, etc)

We will expand the discussion of PRiSE's scalability in section 2.3 with regards to balancing reach and impact. We will also add some more general recommendations to the conclusions for practitioners looking to establish 'research in schools' projects/programmes more generally, drawing from the results presented from the PRiSE approach.

I believe that addressing these point would really enhance an already good piece of research.

We agree with the reviewer that these points will enhance the manuscript.

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