Reviewer’s report

Title: The unpredictable journeys of spreading, sustaining and scaling healthcare innovations: a scoping review

Version: 1 Date: 02 Jul 2019

Reviewer: Gemma Hughes

Reviewer's report:

I enjoyed reading the revised paper which I think provides a very useful review. I have some minor comments to make which are detailed below:

1. Line 36 typo ‘reviewS’

2. Line 172 the total number of papers covered does not equal 24.

3. Line 218 You describe an '...especially enthusiastic fragment of organizational assets..' I assume this refers to a group of people (enthusiasts) and therefore would advise you refer to people as people (not as fragments of organizations).

4. Line 246 'health care' used twice in this line whereas 'healthcare' is used elsewhere.

5. Line 291 you refer to '...renowned healthcare improvement expert Don Berwick' and 'Dr Berwick' in line 296. I would expect references to other authors to be consistent (just surname or titles for all) and whilst Dr Berwick is indeed renowned am not sure this needs to be spelt out here.

6. Line 314 I am not convinced by the use of 3s as a verb (as in 'to 3s'). This is a rather novel use of the term and perhaps could be explained if you are to use 3s in this way.

7. Line 334 List here the 5 headings (that appear in Figure 3).

8. Line 352 '...as long as...' reads as too deterministic here given your careful explanation of the complex journeys of innovation, I would recommend softening this to something like: '...the evidence suggest that...if... then....'

9. Finally, although I don't disagree with your conclusion about the potential for realistic evaluation to be used in future 3S research, I am not convinced at introducing realistic evaluation this late in the paper as such a key concept, and disagree that realistic evaluation will get at the CAUSAL links, rather it will get at the generative mechanisms (how the innovations are understood to work, for whom and in which circumstances).
**Level of interest**
Please indicate how interesting you found the manuscript:

An article of importance in its field

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

Acceptable

**Declaration of competing interests**
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests.

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal