Author’s response to reviews

Title: Using a ‘rich picture’ to facilitate systems thinking in research coproduction

Authors:

Kathleen Conte (kathleen.conte@sydney.edu.au)
Seanna Davidson (seanna@thesystemsschool.org)

Version: 1 Date: 06 Nov 2019

Author’s response to reviews:

Dear Reviewers and Editor,

Thank you for the careful review and feedback and this opportunity to edit and respond to the reviewer’s comments. In this letter, we detail our specific revisions and responses to the reviewers point by point. We believe these revisions address all of your concerns. We also provide a track changes version of the manuscript in which new/revised content is indicated.

1. Reviewer #1: This is a very important and interesting piece of research. Both the method of co-production of the final product with the stakeholders involved through several iterations and discussions but also the use of visual graphic to capture the understanding of the programme is a novel mechanism for knowledge translation.

1.1. The authors have provided plenty of rich details about the process they undertook and the results within the manuscript as well as the appendices. I do not have any further comments on the manuscript other than it would be good to get a better understanding why the games such as snakes and ladders were initially considered as the format for the visual representation. There are other well understandable visuals and some further rationale or explanation would be helpful. Otherwise a very interesting study and the methods can be widely used and explored for different settings.

We have added the following information on page 14:

We identified these games progressively over the course of analysis. For example, while discussing data about practitioners’ experiences with PHIMS, we observed that this was like a game of chance where progress was often beyond the players’ (i.e. practitioners’) control and appeared to be ‘two-steps forward, one-step back’. This reminded us of our experiences playing ‘snakes and ladders’. So we chose these games for their ability to depict how practitioners advance work goals by accomplishing specific program and PHIMS-related activities and because they provided a familiar reference point.
Reviewer #2: OVERALL COMMENTS
Thank you for the opportunity to review this manuscript. I really enjoyed learning about "rich picture" as a tool for sense making and its value in systems thinking. The outcomes discussed provide strong evidence that this could be a viable and useful tool to encourage more systems thinking. More such examples would be good to learn from.

2.1. While this is an important tool, the paper is more about the process for developing a rich picture with a lot of detail about the workshopping process and the methodology. There are several areas that need more clarity and much more details to truly understand what was done. I would recommend revisiting the paper with the journal scope in mind but also some revisions to answer the queries below, keeping in mind that this is an interesting approach and method to consider.

SPECIFIC COMMENTS

Introduction

This provides a good background and flow in general. A few comments:

2.2. Page 6 Line 53: This seems to come prematurely as we don't yet even know the aims of the study before we hear about how rich picture was used. Suggest moving this to a later part of the paper.

We presented the aims of this study on page 5, lines 2-5. In the section the reviewer references on page 6, we are orienting our reader to our approach to using a rich picture. In the lines that the reviewer references, we present a general description of our approach to contextualize it within the broader literature of the range of ways art and rich pictures have been used in the past, before moving on to the specifics of our rich picture in the next section.

2.3. Other valuable papers to consider: Peters: https://protect-au.mimecast.com/s/uD2gCWLYT7iWjxKEIniX4U?domain=health-policy-systems.biomedcentral.com

We agree that this is a useful introductory paper for systems thinking. However, we have chosen not to cite it because it specifically does not discuss or describe Soft Systems Methodologies. From our perspective, this is an important oversight of this paper. We describe Soft Systems Methodologies in more detail in the “Rich Picture” section.

Methods

2.4. The methods are very thorough with each step well explained. However there are a few areas that are unclear. If N=7, what important voices could be missing from the process? How many participants could there have been? Is there a breakdown
of the 7? How many were policymakers and how many were health promotion officers? How many were IT staff? Are IT staff the policymakers? A bit more clarity would be helpful. How many of the researchers were present?

We now provide more details about the workshop participants on page 7 & 9 (see our response to 2.5 below for further information). On page 9 we specify that participants represent approximately an equal split between each team - we do not provide more granular details of the participants to protect privacy.

Regarding the helpful comment on missing voices - on Page 11, line 48 we now clarify that health promotion practitioners could not be part of the workshop and how we addressed this limitation. See edited content reproduced below:

Another example is that it was not logistically feasible to include health promotion practitioners in the workshop. Although this was not ideal, we designed the introduction and activities to acknowledge and consider this missing perspective, and identify future issues to explore with them.

2.5. In the intro you indicate that coproduction is "the joint working of people who are not in the same organisation to produce goods or services." Were these 7 people therefore from different orgs? Producers and users?

On page 7, line 23 we have clarified that the participants represent 2 divisions within one large, state-wide health system. We also clarify that further details about the participants and their roles are in table 1. We do not report more information to protect participant privacy.

2.5.1. Its clear that the larger study was co-produced but it is unclear whether this component can be considered co-produced also with the definition as is. Perhaps answers to the questions earlier will also assist with some of these queries.

In the introduction (beginning page 3) our definition of coproduction includes a discussion regarding the range of ways coproduction has been defined – particularly that coproduction is broader than the definition provided. Importantly, not all activities to serve coproduction are co-produced. In this study, we coproduced meaning making and interpretation by using the rich picture – though the picture itself was not coproduced. We offer the rich picture as a tool to facilitate broader coproduction activities.

2.6. Is the entire experience that is shared here the result of the workshop? If so that needs to be clear that this is a reflection of the PHMIS and production of a rich picture within a one day workshop.

On page 9 we clarify the timeline as follows:
The picture development and workshop occurred after ethnographic fieldwork was completed, but prior to the publication of research findings. In this paper, we describe the process of developing the picture, trialing it, and conducting a 1-day workshop within this time period.

2.7. Page 7 Line 25: Its unclear...how do you explore dynamics between two inanimate systems - an electronic system (PHIMS) and a practice? Are you exploring dynamics between people engaged in utilizing both? If exploration is between two inanimate processes, then its unclear how the rich picture fits in...perhaps rephrasing would make this clearer.

The broader study draws from multiple theoretical perspectives – including actor-network theory which conceptualizes inanimate objects/processes as actors in a broader system. This framing and actor-network theory was referenced on page 7 (citation 27). We also provided references to the overarching study that more thoroughly outlines this theoretical positioning. We have also drawn attention to this by adding the following language to the in-text citation: (For more details see, e.g. 25, 26).

Perhaps the confusion is that this is a methods paper about using a rich picture for coproduction – it is not a paper about the findings from the parent study. The parent study is referenced only to provide enough context for the reader to understand the content of the rich picture. The next section (identifying the need to translation ethnographic data for coproduction) provides detailed rationale for how the rich picture fits within the broader study, and study procedures.

2.8. Page 9 line 55: what is a "scaled out view?"

We have amended to:

Our aim was to visually depict wider perspective of the system – i.e. a 'scaled out' view

2.9. Page 10 line 40: How were the drafts shared - virtually, in person, email?? How was the picture trialled? What does it mean to be trialled - ie what probing questions were asked to ensure that it was meeting the objectives? How many of the research team were involved in this?

Page 10 line 60: you mention trialling with one HP team. How many teams were there in total? How was the trialling team chosen? How many people were in the trialling team?

We have added more clarifying details to this section beginning on page 10 line 57, including the purpose of trialing the picture and the number of people who participated in this process.

2.10. Page 12 line 18: after participants generated ideas in silence was there discussion and were there differences in interpretation? How were these managed?

We provide the full workshop outline in the Appendix that details the activities (see Page 35 lines 50 – Page 36 Line 43 for the discussion activity). The results section details the
conversation and sense-making work the participants had around differences in interpretations. Additionally, we now add the following line page 11 line 36 to clarify our role in managing the workshop.

Both authors are experienced group facilitators and drew on these skills to design the process, and to manage group dynamics during the workshop itself.

2.11. Page 12 line 20: How were different thoughts or ideas to the provocative questions managed? How did facilitators deal with diametrically opposed interpretations?

We were not seeking consensus, therefore opposing interpretations were validated and documented. These points were emphasized at the beginning and throughout the workshop, and both workshop leaders drew on their expertise as facilitators to manage these conversations and divergent perspectives. We have added the following clarifications:

Page 11: Both authors are experienced group facilitators and drew on these skills to design the process, and to manage group dynamics during the workshop itself.

Page 12: By moving between individual details, the full picture, and participants existing knowledge, the process aimed to encourage participants not to seek consensus, but rather to develop new insights into and ask new inquiry questions

2.12. Page 13 line 1: can the survey questions be included? What was asked and in what way?

Details of the online survey are supplied on page 13 lines 45-53, the individual questions and their scores are reported on page 18 lines 51-58.

2.13. Box 2: There needs to be more clarity on the three aspects in the box. Is the first the purpose of multistakeholder engagement? The second is the aim of the visual picture and the third the goal of the workshop? Its not clear particularly as purpose, aim and goals are often used interchangeably.

We have provided clarifying information as suggested. Please see Box 2 for revisions

Results

2.14. Why are the main questions called Themes? Aren't they just questions? What questions could have been asked, in retrospect, that should be included in future exercises such as these?

These relate to ‘themes’ that are represented on the rich picture. But we appreciate that this is confusing as “themes” often relate to qualitative findings. So we have clarified adjusting the headings to clarify that themes are specific to this picture.
2.15. Were there any decisions (amongst participants) to rectify some of the incongruencies that participants noted? I.e…were there other outcomes that were unanticipated through this method?

As detailed in the workshop design, we prompted participants to consider subsequent actions or issues requiring more information/clarification. It was beyond the scope of this paper to follow subsequent decisions made and enacted by the workshop participants and to protect their privacy and processes we don’t specify these potential actions here. We do provide a discussion of unanticipated finding beginning on page 19.

2.16. Perhaps I missed the full range of who the participants were but most quotes come from the managers and IT designers form the same organisation. I had the impression that there were several other types of other participants whose thoughts could be shared?

See our response and edits to points 2.5 and 2.51 above. Briefly, NSW health is an extremely large system with many departments, each reflecting different purposes and comprised of individuals from different professional disciplines (and can be quite siloed!). As described above, we now specify that the rich picture workshop was with 2 departments within NSW health.

2.17. Page 17 Line 56: Did all participants complete the evaluation? Are results means etc of 7/7 partners? Did the researchers complete the form also?

On page 13 we now clarify that all workshop participants (i.e. 7/7) completed the evaluation. It would be inappropriate for the researchers to complete the evaluation as well. above.

Discussion

2.18. Its not clear about where in the process the research project comes in…does the rich picture help raise questions for research or is the rich picture the output of the research?

On page 9 we’ve added:

The picture and workshop occurred after ethnographic fieldwork was completed, but prior to the publication of research findings.

Our purpose in writing this methods paper is to demonstrate how we both use data to produce a picture and use the picture to interpret findings in a coproduced partnership, and also raise new questions for subsequent studies.

2.19. Its not clear who the producers and the users of the research are that are tasked to "co-produce" …and what are they co-producing? The research question? The analysis? The output (rich picture?).
On page 9, we clarify that the rich picture was used to enable co-producers to become familiar with the data and findings, interrogate it, and therefore, to better contribute to final interpretations and outputs. We also add the following sentence on page 22 to clarify how this process fit within the broader coproduced study:

Participants took their experience back to their workplace, and the picture was subsequently shared with the full coproduction team as part of a broader reporting process.

2.20. It would be helpful to anchor this new methodology more in terms of other creative forms of coproduction that are documented such as drama, art, photo-voice, video-voice etc and what is similar or different in terms of desired outcomes re systems thinking?

A thorough discussion of the range of creative and arts-based approaches and their relationship to systems thinking is beyond the scope of this paper. In the introduction (see lines 15-20) we do reference the important ways that other arts – specifically pictures- have been used in research processes.

2.21. The authors mention some of the challenges such as concerns about "validity" as well as hesitancy to question ones own role in the system. What potential solutions to this do the authors propose? What can we glean from psychology literature to overcome the latter? What types of other "provocative" questions could be posed?

On page 22 we reflect on these discomforts as due to the new ways of working prompted by the picture and working in coproduction overall. We reference other studies that point to the importance of building trust over time to overcome such concerns and to build trust. See added content reproduced below:

Our sense is that these struggles were due to introducing a new way of working, and participants’ comfort with the kinds of reflective questions posed rather than the design of the picture or workshop itself. Resolving such discomfort requires time to establish trust and comfort with new ways of working (35, 36). We present the rich picture as one such way to facilitate this evolution.

2.22. In terms of long term evaluation, what can be considered with respect to whether this group actually now use a different approach in thinking and employing a systems thinking approach? What would be the best way of capturing this and learning from it?

On page 22, we have added:

Ideally, a follow-up with the coproduction team would examine how insights from this process were applied and/or evolved over time.
Minor comments:

Some minor spelling errors etc…need correcting.

We have made the suggestions below, and have edited the document for spelling and grammar.

2.23. Page 6 Line 20: should read "concretely"

Revised

2.24. Page 6 Line 40: should read Crowe et al.

Revised

2.25. Page 7 Line 13: Simplify opening sentence. Perhaps: "The data for our rich picture came from…"

Revised

2.26. Page 9 line 3: word missing after "staff members"

Revised

2.27. Page 11 line 9: should read To not Two

Revised

2.28. Page 11 line 37-47: Too long a sentence. Need to separate the ideas Page 11 line 42: replace "by recalling to them" with "by reminding them"

Amended to:

“Initial activities aimed to encourage participants to take ownership of this process by recalling to them that they had initiated this inquiry and chosen an interactive workshop as a means of engaging with new materials. The activities prompted reflection on why participants were interested in the inquiry topic, and why they requested taking a new approach”

2.29. Page 11 line 47: "they" missing at end of line

Revised

2.30. Page 13 line 35 sentence seems incomplete.

We have revised
2.31. Page 14 line 7: need rephrasing…unclear.

Revised to:

“To provide context, we depict key stakeholders who are observing the game and state-level program managers who monitor progress.”

2.32. Page 17: line 10 format of heading doesn't match that of themes 1 and 2

Revised as suggested