

Author's response to reviews

Title: Revisiting Interaction in Knowledge Translation

Authors:

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Version: 2 **Date:** 1 September 2007

Author's response to reviews: see over

Re: **MS:** 8752196021397181
Title: Revisiting Interaction in Knowledge Translation
Authors: Liane R Ginsburg, Steven Lewis, Lisa Zackheim and Ann Casebeer

To: The Implementation Science Editorial Team

We are pleased that both reviewers are positive about this manuscript and we have tried to respond to all their comments (including the discretionary ones). You had indicated that, in particular, we should address the comment that, from a single case study, we were overstating our conclusions; the methodological issues of case study research; and the issue of the clarity of the presentation of the results. We have tried to pay special attention to these areas and, as detailed below, we have softened the overall tenor of the paper so that our case study results are presented in a more exploratory fashion, outlining implications and direction for future research. We have also tried to improve the clarity of the results.

Our comments and responses appear indented in italics (like this) following each reviewer point.

We look forward to your feedback.

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Reviewer 1

Reviewer's report

Title: Revisiting Interaction in Knowledge Translation

Version: 1 **Date:** 7 May 2007

Reviewer: Luciana Ballini

Reviewer's report:

General

The paper has a very good background section which in brief provides the terms of reference for the authors' research question and an outline of main current theoretical approaches and contribution. In this section the reader is able to identify the main issues to be explored regarding knowledge translation and research utilization, such as style, timing and content of interaction, and to get an overview of the suggestions made in literature.

Having identified the interaction model as they object of study, the authors raise attention to the necessity of outlining determinants of “successful” interaction and the choice of a case study, as an explorative tool aimed at isolating some of the constituent elements of such interaction, seems appropriate. They suggest some elements of process (“conditions under which various interactive approaches are more or less successful”) and the possible role of modifying factors such as “nature of research”. Having said that I will list some reservations I have with the reporting of the study.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. I would hold that a case study is appropriate for giving analytical insight, rather than analytical generalizations (top of page 6) and that other study designs can build on such analytical insights to later test and generalize definition of variables and relations between variables.

The argument that case study research permits analytical generalization is Yin’s. However, we agree with this reviewer’s suggestion that analytical generalization may be a stretch for the case we studies. Accordingly, reference to analytical generalization has been removed at the top of page 6 and it now reads: In the present study the case design permits the development of analytical insights. On p.15 (middle paragraph) we have added examples of future research opportunities suggested by the case study.

2. A case study helps to describe in details process and outcome and relations between the two. I would therefore regard the authors’ interest limited to “how this knowledge translation may have facilitated a response to the CAES data, neglecting “whether it facilitated a response” (bottom of page 5) as a missing opportunity or at least puzzling.

Certainly we were interested in assessing whether the forums studied facilitated a response to the adverse events study (the outcome), in addition to focusing on the ‘how’ (process) piece. This reviewer comment points out that our statement at the bottom of page 5 was unclear and so we have rephrased it so it now reads: “A case study design [34] was appropriate given our interest in learning not only about whether this knowledge translation strategy facilitated a response to the CAES data, but also how it may have facilitated a response...”. We do address the q of “whether the forum facilitated a response” in our results and discussion. For instance, the first para in the discussion talks about the forum outcomes—we conclude that forums were useful for information sharing and for getting the CAES on the agenda of a wide range of Canadian stakeholders and perhaps facilitating other safety initiatives but that they were less successful as a direct stimulus for proactive safety activity—and para 2 of the discussion considers how these outcomes are consistent with different kinds of research ‘use’ (instrumental, conceptual, symbolic). Discussion of these types of research use was also added to the literature section (further to this reviewer’s next comment) so that it would be clearer we would assess forum impact, in part, using this framework.

The case study design does not preclude researcher from identifying specific expected outcomes to be evaluated and set against the process. Indeed the results suggest that the knowledge translation strategy “worked” for some things but not for others and it would have been clearer to have the main outcomes stated and argued for beforehand.

We have now added a paragraph at the end of the lit section on p5 that describes various uses of research (instrumental, conceptual and symbolic) against which we judge the forum outcome (also addressing point 4 below—thanks for this suggestion). We have also tried to state the forum goals for research use more explicitly by adding the following to the 1st para in the methods section on p.5 “To reiterate, the goal of the forums, was to stimulate proactive, instrumental use [10] of the CAES data as defined above”. Because the intended outcomes of the forum (ie instrumental use) were

articulated by the forum hosts, it is perhaps most appropriate to clearly state their aims and situate these in RU theory. We have tried to do this with our additions to p5 just noted and again in the discussion (pp. 11-12)

3. Results could be reported in a more structured way, with more information on the sampling methods and [b] letting the few extracts from the interviews to act as corollary rather than as actual data.

To provide more information on the sampling methods and present these results more clearly we have added Table 1 in our discussion of data collection methods on page 6 and we have reworked the first paragraph in the results section where the number and nature of those interviewed is described:

- *Table 1 provides information on the types of organizations that were present at the Forums as well as relative number of organizations represented at the forum according to type (eg Table 1 shows there were 8 government orgs represented at forum 1 compared to 4 professional organizations and 3 safety-focused organizations). This should help give the reader a better sense of how large our sample was as a proportion of the total # of organizations participating at the forums. It should also make it clearer that a random sample of stakeholders were selected for interview, stratified by organization types shown in table.*
- *In addition, the changes to para 1 in the results section on page 7 now allow the reader to see the participation rates for those stakeholders and researchers systematically selected and invited to complete an interview (the text now states that 74% of stakeholders randomly selected for an interview agreed to participate and a similar %age of researchers). As well, a description of the number of interviews that emerged from the more purposeful sampling approach that we also used now follows. We felt it was important to retain this description of others who were interviewed outside of the systematic approach—forum architects, stakeholders in the initial in-depth group, and researchers with policy-maker contact around the data involvement—as these interviews reflect a more purposive type of sampling used to obtain insight from other key players in the case we studied.*

[b] Because the bulk of the data for this case study come from interviews, we have structured the results section around 3 prominent themes in the data. We have tried to describe the themes in the results section and use data from the interviews as evidence to support and illustrate the themes. This approach is in keeping with that described by Sandelowski (1994)¹ who suggests “Researchers should select an approach to quoting that is both faithful to what the person speaking wanted to convey and to their own ideas concerning what the quote represents or means.” It is fairly common to use direct quotations from study participants in reporting qualitative findings to illustrate themes (e.g. Richardson, 1994, King, 19984)². In keeping with this approach, we feel it is most appropriate to let the data speak for themselves rather than paraphrasing interviewee

¹ Sandelowski, M. (1994). The use of quotes in qualitative research. *Research in Nursing & Health*. 17(6):479-82.

² Richardson, L. Writing: A method of inquiry. In *Handbook of qualitative research* Edited by N.K. Denzin & Y.S. Lincoln. Thousand Oaks, CA: Sage; 1994: 516-529.

King N: Template analysis. In *Qualitative Methods and Analysis in Organizational Research*. Edited by Cassell C and Symon G. London: Sage; 1998:118-134.

remarks as this may bias or mask the true nature of an interviewee's remarks. That said, we have revisited the themes and removed a couple of quotes used in the first theme to try to streamline the text. We have also slightly reworked the theme titles to better reflect the case findings. We leave discussion and interpretation of the data mainly for the discussion section of the paper where we have now created 2 subheadings to improve flow and clarity of the paper.

I would also be more cautious when presenting results, avoiding statement like "the forums were successful at ..." or "our data show that ...", and use data to outline positive and negative outcomes as "perceived" by respondents.

Agreed, we have tried to soften the language in several places and remind readers that the data are perceptions of those who participated in the forum process. For instance, on p.8 we now say the forums were "perceived by respondents to be successful at informing stakeholders..." instead of "the forums were successful at...". And in several places throughout the manuscript we changed wording from "our data show" to "our data suggest". In addition, to address a similar comment by the 2nd reviewer, we have changed the tone in several places throughout the discussion where the implications of the case study findings are now described as 'helping to raise questions', or 'encouraging us to consider' further interaction model specification (rather than saying our results offer definitive conclusions)..

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

4. I found the discussion on the differences between the instrumental and conceptual use of research quite interesting and maybe it would have done more justice to the study to have outlined these at the beginning as possible outcomes against which to evaluate the process.

Agreed, as noted in our response to 2, we have added discussion of these different types of research use to the end of the lit section on p5 and then refer back to this in our interpretation of the results re what the forums achieved. We also (in response to your point 5) added a couple of examples of how the attributes of research we outline may moderate the relationship between interaction and these different kinds of research use. Thanks for this suggestion.

The difference perceptions or expectations between stakeholders and researcher are not fully addressed, while they could be important determinants for the successful interaction.

While we have tried to be transparent wrt the data we report where researchers and stakeholders perceptions were consistent (eg in theme 3 that more interaction would have been good following release of the study data to aid in interpretation and next steps) and where their expectations differed (eg around when they would get data)...and we have tried to weave this into the themes we outline, we appreciate that we have not been able to fully explore this issue. Accordingly, we added the following statement where we talk about study limitations on p.17: "An additional limitation of this study has to do with our inability to more fully examine the different perceptions and expectation of stakeholders versus researchers, including the extent to which these differing perspectives may be important determinants of successful interaction."

5. the factor "nature of research" is only briefly touched upon though it looked "promising" in the background.

In the background section on p4 where we discuss nature of research, we have expanded this to reflect that we mean the nature / attributes of research. In addition, we have now

clearly outlined 4 attributes of research that this case study suggest may be worthy of further research on p.15 ((1) stakeholder diversity, (2) addressability / actionability of results, (3) finality of study design and methodology, and (4) politicization of results). And, as noted above, we have added 2 examples of how the attributes of research we outline may moderate the relationship between interaction and research use. The first para on p.13 under the newly created discussion section sub-heading “**Implications for Interaction in Knowledge Translation**” has been reframed so it is clearer that that paragraph is also talking about this issue of the nature /attributes of research and how the attributes of research may be helpful for suggesting what type of interaction is warranted. Thanks for this suggestion.

6a. The Discussion section could probably be shortened and I found it confusing the way the authors seem to treat use of research in decision/policy - making and translation of research into clinical practice as if they were very similar issues, while I think they are quite distinct.

As noted above, we have created 2 subheadings in the discussion section of the paper to improve clarity and flow.

We have looked carefully at the 3 places we had referenced clinical decisions in the discussion: (1) we have removed reference to clinical dm that was in our paragraph on p.14 which questions whether interaction can align unaligned interests as it seemed unnecessary upon revisiting (thank you); (2) we left the references to clinical decision making (on p.15, last para) as it was included not to suggest RU is similar in clinical and policy arenas but solely to emphasize the difficulty of RU by pointing out the lack of uptake for clinical trials with clear and actionable results (let alone for policy research that highlights the need for change, but offers no clear direction for achieving it); (3) our only other ref to RU in the clinical domain is in para 2 on p.16 where we point out that the barriers to RU in clinical, policy and organizational arenas are actually different. We prefer to leave it in to emphasize the need for RU in numerous domains.

6b. To sum up I think the paper could be improved by re-positioning the results within the explorative aim of the study and by attempting a definition of process variables which, in future studies, could be linked to explicit outcomes.

*As noted above, presentations of results has been reframed in a more exploratory light and results are now used to suggest areas for future research. In addition, we drafted a summary of the four attributes of research that might permit more successful interaction, including outlining a couple of examples, and we suggest the need for future research that addresses the link between interaction processes and the outcome of RU. As noted this addition can be found on p.15 at the end of the newly created discussion sub-section entitled “**Implications for Interaction in Knowledge Translation**”. The re-drafted section now reads: “Future research could test whether the four attributes illuminated by the current case study ((1) stakeholder diversity, (2) addressability / actionability of results, (3) finality of study design and methodology, and (4) politicization of results), or others, can be used to recommend the conditions under which different approaches to interaction in knowledge translation are likely facilitate different degrees of instrumental, conceptual and symbolic research utilization....[examples are given]... This type of research would contribute to greater understanding of the relationship between interaction processes and the outcome of research utilization.”*

Discretionary Revisions (which the author can choose to ignore)

Unable to decide on acceptance or rejection until the authors have responded

What next?: to the major compulsory revisions

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.

Reviewer 2

Reviewer's report

Title: Revisiting Interaction in Knowledge Translation

Version: 1 **Date:** 5 June 2007

Reviewer: Tiago Moreira

Reviewer's report:

General

1. This paper draws on a case study to suggest that while current interaction models of knowledge translation highlight the importance of continuous interaction between researchers and stakeholders, these interactions might be more successful for both parties if they are targeted and strategically deployed. These are particularly important, the authors argue, when the results of the study relate to topics high on the public agenda or are alarming, because targeted interaction interactions might bring about alignment between researchers and policy makers' interests.
2. The study adds to emerging evidence showing knowledge translation is underpinned by stakeholders' use of 'concepts', ideas or 'frameworks' rather than a simple translation of research results.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

3. While the authors' discussion of the knowledge translation literature is adequate, the methodological basis upon which their reworking of these models is made is less so. I was not convinced that a single case study could warrant such strong claims about what the authors see as required changes to these models. While the case study highlights hitherto ignored processes of strategic interaction and interest alignment, and while it seems appropriate to conceptualise these dimensions, I would ask the authors to cast such conceptualisations as tentative and hypothetical, in need of further comparative research.

Agreed. We don't so much mean to suggest required 'changes' but rather suggest we need more knowledge of the conditions where interaction is suitable (eg it may not apply as widely as suggested by current interaction theory). That said, we have tried to soften the language and the claims we make throughout the paper. Starting with the paragraph at the end of p4 where we highlight some knowledge gaps about the conditions under which interaction models might work best, we NOW state that the present study "provides some insights into these important areas". As well, in several places throughout the discussion where the implications of the case study findings are discussed, the implications are now described as 'helping to raise questions', or 'encouraging us to consider' further interaction model specification. We have also reworked the discussion so the implications of the case study are presented more tentatively, and in terms of future research opportunities. Thank you for this suggestion.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

4. in Page 3, line 21: "and knowledge translation are highly social processes that are more successful". Do the authors mean highly socialised processes? And in that case, is 'social' a variable attribute of human processes?

We do mean that RU and KT are highly "social" processes where the importance of actual relationships between individual researchers and decision makers are paramount. In this way 'social' would be an attribute of human processes –if we are understanding the last part your comment correctly. The paragraph that follows talks about the

importance of face-to-face interaction which provides an example of the social nature of the KT process.

Discretionary Revisions (which the author can choose to ignore)

5. The abstract's results and conclusion sections are vague and do not serve the paper well. Perhaps something more substantive - about strategic interaction, etc.- could be brought to bear in here to interest potential readers.

In the results section of the abstract we have added reference to the four attributes of research illuminated as potentially important by the current case study: (1) stakeholder diversity, (2) addressability / actionability of results, (3) finality of study design and methodology, and (4) politicization of results. And we note that future research could test whether these or other variables can be used to specify some of the conditions under which different approaches to interaction in knowledge translation are likely to facilitate research utilization.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

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.