Reviewer's report

**Title:** Evidence in the Learning Organization

**Version:** 1  **Date:** 21 October 2008

**Reviewer number:** 1

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**General Comments**

This is a very interesting review of an area of potential relevance to the process and challenges of incorporating new evidence from clinical research into practice within health care organizations. Its strengths include that the Learning Organization (LO) concept, as well as potential models of implementation of the design, are largely previously unknown within the literature of health care implementation. The weaknesses of the review are that its methodology, design and perspective are so generally and at times sketchily presented that the relevance and promise of its findings are ultimately unclear, and perhaps therefore blunted. No doubt the authors seek to confine their manuscript to describing the various LO models themselves and to avoid having to deal with the potentially vast realm and literature pertaining to evidence uptake and implementation science within which such models might play a role. However, the price they have paid is that the true context of relevance of these models is inadequately defined and their presentation therefore comes across as a bit naïve. I believe that the manuscript can be sharpened in all of the above ways without unduly rendering it unwieldy. The presentation of the authors’ own synthesized model comes across as abstract and inadequately articulated as a representation of the process of care and improvement. It might be a ‘bridge too far’ to try to present this as part of the same manuscript that reviews the realm of LOs in a way unfamiliar to the majority of readers. Perhaps the review needs to be elaborated separately from the presentation of the authors model for either to be done adequate justice. The above, and below, notwithstanding, the authors need to be commended for their effort to illuminate the potential importance of this area to medical practice improvement and to be encouraged to continue their initiative.

**Specific Comments and Discretionary Revisions**

P. 5-6: Opening Scenarios: These scenarios are apparently designed to set the stage for illuminating how techniques drawn from LO systems can uniquely contribute to the effectiveness of an implementation strategy (is this really your objective?-see below). The strategy described in this scenario is quite primitive as a total approach to guideline implementation. A single orientation session followed by posting on a website is described, with report cards from a presumably unseen, unknown “quality committee” being the sole other technique employed. The existing literature on guideline and clinical policy implementation...
has a great deal to offer to remedy such a situation without having to draw on new models and literature. From the standpoint of implementation science, it would be much more effective in promoting relevance of LO systems within medicine to describe a scenario in which currently advocated methods, such as academic detailing, electronic reminders and drawing on opinion leaders and influencers within an institution are being maximized and then show how a LO design can uniquely add a further dimension. Along the way you might cite a couple of key sources for current knowledge in implementation science in medicine. Arbitrarily I would suggest:


The above and other publications from the “knowledge translation” literature address issues of individual and collective behavioral psychology as they impact upon the process of changing and securing compliance with care policies within institutional frameworks. The authors might consider the foregoing suggestion to be unwieldy and, if so, might simply elect to drop the scenarios altogether.

P. 6-7, Background: The opening paragraphs are the place where a much more compelling and informed argument can be made regarding nature of the importance of and stakes pertaining to successful implementation of quality health care defined by high level clinical evidence, current concerns about the obstacles to such implementation and the barriers to change on both an institutional and individual practitioner level. This could then lead to a statement of need for an additional dimension which in turn is driving your inquiry into the potentials offered by LO models.

P. 7, Par. 3: This is where you seem to be getting to the crux of why you think LO models have potential usefulness to health care systems. It needs to be much more explicit. For example, what is the potential area of contribution of LO models: Is it in the domain of successful implementation of agreed on guidelines and pathways (suggested by your scenarios)? Or is it more in the area of ‘surveillance of new knowledge’-i.e. is your vision a matter of tapping the collective consciousness of all strata within the health care staff for the purpose of identifying areas of new knowledge, evidence-based and otherwise, that can be productively tapped for the purpose of improving organizational performance? Is the mission of LO discovery or implementation? The opening scenarios led me to believe it was the latter; here, I begin to think it is the former, which is perhaps more interesting and potentially innovative given the wealth of literature on implementation. Your reference 7, cited in your point # 2 on P. 9, reinforces the notion that the focus of a LO is not the implementation of predefined improvements but pertains more to the decentralization of the improvement
process through the identification with the global mission and goals of the organization on the part of individual members. This needs to be clarified if the rationale for your effort is to become clear.

P. 10, Literature Review and Methods: One of the most useful products of your review might well be to have developed a search strategy for identifying medical-practice-relevant articles in this area. Please consider describing your search strategy in much more detail, or perhaps even including your MEDLINE or other most relevant database strategies in toto.

At the bottom of this page you refer to a process of ‘identifying themes’ as guiding your search and selection process. Please describe this process in more detail, including how the ‘themes’ were defined and decided upon.

P.10, bottom-P.11 Par1: A qualitative approach to analysis and interpretation of the results of your search is defensible in a situation in which you are seeking to bring a new and unfamiliar domain of conception to bear on an original area of application. However, nonetheless, you could be much more explicit with respect to the process referred to here. For example, could you identify the kinds of criteria that emerged in the course of your consensus process, particularly those that related to your perception of relevance to medical applications?

P. 11, Par. 2, Results: Please state how many frameworks were considered in the process of arriving at the seven. Consider including citations relevant to those that were excluded.

P. 11, Par. 3 and following: Results: Biomedical readers will be entirely unfamiliar with the models you are describing here. Concepts such as ‘loop learning’ need to be described right here, in the main body of your manuscript, not buried in the Appendix I glossary. These are the fruits of your inquiry and need to be put center stage in the manuscript.

By way of reflection on comments offered in connection with the previous section, the impression from the description of the individual frameworks is unmistakable that the gist of the Learning Organization is the process of capturing new knowledge for the purpose of enhancing organizational performance, not particularly enhancement of methods for enforcing policy that has already been agreed on. Hence the scenario and the pertinent discussions that come at the end seem quite tangential to this potentially interesting idea pertaining to evidence based practice. Whether or not this interpretation is a fantasy, you need, at least occasionally, to concretely elaborate the ramifications of the different frameworks, and later of your proposed model, on potential contexts of clinical care for your vision to become clear to the reader.

P. 15 and Following: the “EPO” Model: To follow how the frameworks identified but not described in Table 1 and the concepts summarized in your Appendix relate to the schematic presented in your Figure 1 presents a cognitive challenge to the reader. For example, in Paragraph 2, you refer to “four lines running vertically through Figure 1”. This is already confusing. I assume that you are
referring to the 4 lines radiating from the top of that part of the construction that involves 3 concentrically stacked ellipses. However, this is already taking me a bit of work to be sure about and the lines in question are not labeled on the figure itself. I suggest that you attempt to reconstruct the figure and this description as a ‘stand alone’. Assume that the reader has not read, nor has access to, the discussion of the frameworks, your Table 1 or the Appendix. Make the figure and a corresponding legend clearly convey the gist of your model and how it would relate to a health care system or organization. If you can achieve this, it likely will aid substantially in writing the entire manuscript in a more clear and inviting fashion.

The descriptions provided on pages 16-18 are quite abstract and do not constitute an effective way of summarizing how your model might work to enhance care in concrete ways. Consider eliminating the opening scenario and the final section (pp 19-23) as the principle vehicle for concretizing your model in favor of weaving concrete examples into its primary elaboration. Returning to comments already made above in this regard, the upshot of your scenario and hypothetical implementation of a LO model as a means of improving compliance with the sepsis pathway involves techniques already well known in the knowledge translation and implementation literature: streamlined access to protocols, use of opinion leaders and influentials and frequent dynamic audit and feedback. These reflect insights that do not appear to require the development of a new and unfamiliar systems model to have arrived at. The very end of the scenario closure constitutes a pleasant fantasy for those of us who work in stressed and constrained circumstances. However it does not necessarily clinch the sale of your model in the most effective manner.

P. 31, Table 1: This table is extraordinarily dense and does not speak effectively to readers not already familiar with the models in question. Flipping back and forth between this table and the Appendix defeats the clarifying and summarizing purpose of a visual. A clear schematic representation of some of the underlying elements, such as “loop learning” might create the basis of a simplified stratification of the differences between the models.

**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.