Reviewer’s report

**Title:** Impact of an online writing aid tool for writing a randomized trial report: The COBWEB (COnsort Based WEB tool) randomized controlled trial

**Version:** 1  
**Date:** 10 June 2015

**Reviewer:** Patrick MM Bossuyt

**Reviewer’s report:**

I found this an interesting and readable report of a small study in which the CONSORT reporting guidelines had been used to develop a tool to guide students in writing reports of RCT. I believe this leads the way forward for reporting guidelines: we cannot expect the editors to police authors, the future authors should be guided in writing informative reports.

**Major compulsory revisions**

1. **Statistical analysis – main model**

   For a paper that deals with informative reporting, the statistical analysis is not optimally reported and – very possible – not well performed.

   The only sentence we have is the following (page 14): “Considering that each participant had 6 observation (i.e. 3 domains with the tool, 3 domains without the tool), a hierarchical model was fitted including a fixed intervention effect, a random participant effect and a random participant-group effect.” It was unclear to me here what “group” meant, because there are 20 groups / conditions in the experiment. Why then would you consider these to be random effects, since there are only 20 possible combinations, and they are well defined? Why would the improvement have to be the same for all 6 domains?

   The results section is similarly disappointing. The authors only report a mean (page 16), but do not report the full model, nor any diagnostics and statistics to appreciate model fit.

   Please report the model in full detail, and report the results in sufficient detail.

2. **Statistical analysis – t-tests**

   It seems as if the authors used a mixed effects model to analyze the data, but threw it overboard to analyze the effects of the writing tool for specific domain. Why could the effects of the tool for the respective means not be derived from the main analysis, as effects, or as predicted means? Please remove these t-tests, and describe the model in such a way that all results can be based on a single form of analysis.

   Page 12 – “the statistical analysis allowed to estimate mean scores for completeness of reporting with and without the writing tool”
All very well, but tell us how?

3. Individualized tool

Several sections refer to individualized tools, e.g.

Page 9 – “The tool was individualized according to the type of treatment evaluated (drug, surgery, participative interventions such as rehabilitation, education).”

Page 10 – “For the domain dedicated to the intervention, the bullet points and examples of adequate reporting were individualized according to the treatment evaluated”

Does this really mean that there were 41 different tools? Did this affect scoring as well? Or was there (only) some form of stratification? Please clarify.

4. Interpretation

The appendix gives an example of the completeness scoring tool for the domain “blinding”. Unfortunately, the writing tool for “blinding” was not available to this reviewer (no instructions on http://cochrane.fr/writingtool/item6.php). It is likely, however, that the bullet points on the writing tool correspond exactly to the subitems on the completeness scoring tool. In that case, there would be an artefactually high degree of concordance between the instructions in the experiment and the evaluations in the very same experiment. Please discuss the degree of relatedness between the two (experimental intervention / evaluation) in more detail in the paper, and discuss how this should be handled in the interpretation.

Other suggested revisions

5. Introduction & Theoretical Framework

The rationale for the intervention is now explained twice: once in the introduction, and a second time, under “Theoretical Framework”. There is a high level of redundancy between the two sections. I would suggest to integrate the description of the rationale in the introduction, and restrict the description of the instrument to the actual development.

I could not completely follow the logic about the barriers in the introduction. First, why would the multiplicity of guidelines be a barrier? Is there evidence to make this firm statement? Second, why would the existence of an E&E document be a barrier? That document was meant to help authors and reviewers. Third, the suggestion to invite reviewers and editors to use the editors is not exactly a barrier, (although I can see the logic of intervening earlier in the writing process).

When rewriting the rationale, please rephrase these steps – as described, they are not barriers that are removed by the writing tool.
6. Unit of randomization

Page 6 – “Thus, in the present study, the unit of randomization was the domain, embedded within the manuscript.”

Not true. The unit was the student, who was randomly allocated to one of 20 conditions. See, on the same page “Pairs of participants-manuscripts were allocated to one of the 20 possible combinations”

7. Allocation concealment

Page 7 – “Allocation concealment - The sequence was concealed by a computer interface.”

Vague sentence, which is probably not needed here. This is an experiment, not a typical RCT for evaluating the effectiveness of interventions in consenting participants.

8. Information to participants

Page 7 – “An e-mail advertisement was sent to master and doctoral students to invite them to participate in a writing session. Just before beginning the study, participants provided their consent electronically.”

Please summarize the information given to the participants before the experiment. Was the primary purpose disclosed? Was there an attempt at deception, with debriefing? Were students questioned about the nature of the experiment? Given the somewhat unfortunate split-sample approach, every student knew about writing tools and non-assisted sections, and could arrive at her or his own conclusions about the nature of the experiment.

9. Selection of studies

Page 8 – “Then, we constituted a sample of protocols reporting various pharmacological interventions and nonpharmacological treatments (surgery, implantable devices, rehabilitation, education etc)”

How was this done? Please report.

10. Control group

Page 14 – “for the domains written without the tool (i.e., control group)”

Since the unit of allocation is the student, there is no control group. Please remove.

Other suggestions

11 Page 1 – Paradoxically

Not a real paradox – reporting is not getting worse - just a disappointingly slow change over time.
Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests: 
I declare that I have no competing interests