Reviewer's report

Title: Boolean versus Ranked Querying for Biomedical Systematic Reviews

Version: 2 Date: 19 September 2010

Reviewer: Julie Glanville

Reviewer's report:

I was disappointed that the authors felt unable to provide the same level of helpful descriptions of ranked querying as they have of Boolean searching. This is a paper that would be of great interest to searchers working with systematic reviewers and such detail would make it easier for readers to understand the authors' methods and to appreciate the authors' findings.

Minor essential revisions

p2 para 2, 'metadata is the citations...' This sentence does not make sense at present.

p3 Section 2. I suggest the authors introduce 'might', 'may' and 'tend' to soften some of their categorical statements in this section. The statements are all rather too definite at present and would better reflect the immense variation in systematic reviews if they were made more conditional.

p3 Section 2. Please note that the Cochrane Collaboration is a major and influential group of systematic reviewers but is not the only source of guidance or advice and not all reviewers take it as their gold standard.

p.4 para 1. I support the comment made by another reviewer of this paper that the references are rather old. Since 1994 major efforts have been undertaken by NLM and Cochrane Collaboration members to improve access to reports of RCts on MEDLINE - so the Dickersin article is now of value only in providing a benchmark for how far indexing and access has improved. See our paper: How to identify randomized controlled trials in MEDLINE: ten years on. Glanville JM, Lefebvre C, Miles JN, Camosso-Stefinovic J. J Med Libr Assoc. 2006 Apr;94(2):130-6. Erratum in: J Med Libr Assoc. 2006 Jul;94(3):354. However, it would be fair to say that in other study types access has not improved.

page 5. In this section it is important to note that the search syntax (adj, $ and exp) are specific to ovid and will be different in other interfaces. The slash symbol (noted at the bottom of the page) is also specific to Ovid.

page 5. The authors should choose one term to refer to the MESH headings and use that consistently to avoid confusion. using 'MeSH operators' for example, is not helpful.

page 5 last paragraph. I think the authors could clarify the information they have provided on explosion, major.minor MeSH and subheadings. The MeSH
subheadings (or qualifiers) are listed on page 6, but not given their correct name.

It would help to show an example of explosion with a heading which does explode such as 'acupuncture therapy':

exp acupuncture therapy/

retrieves the following more specific terms:
Acupuncture Analgesia
Acupuncture, Ear
Electroacupuncture
Meridians
Acupuncture Points
Moxibustion

As well as retrieving all the subheadings (or qualifiers) which have been attached to the individual headings as well.

page 6, it would be more helpful to cite the Ovid help pages (http://www.ovid.com/site/products/ovidguide/medline.htm) than a BMA training manual - the BMA manual may disappear and may not be totally current, but hopefully the Ovid help pages will be updated and as current as possible.

page 7 para 5. Please clarify the sentence about 'richer operators' as it is not clear what is meant.

page 9, para 3. This method of creating gold standards is known within systematic reviewing as a relative recall gold standard and you may wish to cite a recent paper which discusses the merits and disadvantages of the approach:


para 11, figure 1, and accompany text. It would really help me as a reader to understand what is going on if I could see the next step represented. I can see the three levels of information in figure 1 and the text talks about a bag of words - please present the actual 'bag of words' so it is clear what is entered or selected.

page 17, table 6. Despite the authors' feedback on this point I still don't understand why the adjacency operator has been 'simplified' to an 'OR' rather than an 'AND' operator. This is not a simplification and I suggest the authors consider another term for this exercise.

page 17, table 6, exp is an explosion and doesn't really 'expapnd MeSH subheadings'. The authors should explain if they have carried out another operation which relates to the subheadings rather than just exploding the subject
headings.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**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.