Reviewer’s report

Title: An assessment of functioning and non-functioning distractors in multiple-choice questions

Version: 2 Date: 30 May 2009

Reviewer: Si Mui Sim

Reviewer's report:

1. I commend the authors for the efforts and positive attitude in responding to the comments made. On the whole, I am satisfied with the responses given and the revisions made.

2. However, I would like to suggest that the conclusion be "toned down a little" as I still think that the results obtained do not fully justify the conclusion made. Thus, perhaps p.14 Line 15 could read: "Because the majority of items developed by teachers are not likely to have more than two functioning distractors, .......", and Line 18 could read: ".... and additional non-functioning distractors are not likely to improve item or test psychometric properties."

3. My main concern is with the criteria used for defining the "non-functioning distractor" in this study, since only slightly more than half of these distractors were defined as "non-functioning" by BOTH low frequency response and poor discrimination power. This means that even these two criteria do not substantially agree as to whether or not a distractor is functioning or non-functioning. So by using "either or" instead of "both" of these two criteria to define non-functioning distracters, it may have inflated the proportion of non-functioning distractors some what.

4. A closing bracket is missing for the percentage (12.0) of None Functioning distractors per item for Test E in Table 2.

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.