Author's response to reviews

Title: Context dependent memory in two learning environments: the tutorial room and the operating theatre.

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Author's response to reviews: see over
Dear Editor,

Many thanks for your reviewer’s comments and an opportunity to further revise our paper. I wish to re-submit our revised manuscript entitled: “Context dependent memory in two learning environments: the tutorial room and the operating theatre” for final consideration for publication in BMC Medical Education.

I might address each of your comments individually as requested:

- Page 3, fourth paragraph: Koens et al.: please provide reference number and rearrange references accordingly;

This has been done, with Koens et al inserted as reference no. 14.

- Page 3, fourth paragraph: “participant’s recall” should be “participants’ recall”;

Corrected.

- Page 4, second and fourth paragraphs: please explain in a few sentences what "suppression of the environment" means;

Additional sentences referring specifically to how “outshining” and “overshadowing” as referenced in the review paper by Smith et al, lead to suppression of the environment have been added to the second paragraph on page 4.

- Page 6, Results section, first paragraph: what is "interquartile range" and why is it important information here?;

The interquartile range is a measure of dispersion of data, where the data can’t be assumed to be normally distributed. It can be used to perform the interquartile range test which is a measure of how Gaussian a set of data.
- Page 6, Results section, second paragraph: "does not cause any statistical difference" is ambiguous and not entirely appropriate, better is: "does not cause a statistically significant difference";

Changed as suggested.

- Page 6, Results section, third paragraph: it may not make sense to say that seven participants improved and six participants became worse - in all likelihood, these are random variations (as a consequence of not entirely reliable measurements, and in the absence of practice effects, half of the participants are expected to score better and half are expected to score worse on a second test, but it is problematic to conceive of this as "improvement" or "deterioration");

Changed as suggested.

- Page 7, second paragraph: please note that non-significant results cannot be interpreted, unless you have reason to doubt that they are non-significant, but given the power in this study, you will probably not have any reason to do so;

The interpretation has been removed.

- Page 7, Discussion section, third paragraph, third line: is the word "stark" used properly here?

Replaced with “obvious”

- Page 8, first paragraph: I would recommend omitting the remarks about "physiological state," as no physiological parameters were measured and they are superfluous here - besides, the Discussion section is already rather lengthy compared with the rest of the paper;

Removed as suggested

- Page 9, first paragraph: you may mention that refreshments were served once, e.g., in the Methods, but it does not need to be repeated, as it was not a factor under consideration in your study. What you could mention, though, is whether "recall intrusions" (i.e., words form previous lists that were recalled during memory testing of one of the other lists - occurred. The words you used are not very remarkable, so it might be interesting for the reader to know whether confusion between the lists occurred). The authors might also explicitly state whether the words were randomly assigned to the word lists, for then any differences in recall between the lists would also be random (except for fatigue or practice effects);

The mention of refreshments has been removed except for the methods section. “Recall intrusions”, where words from one list were recalled on another list has been briefly mentioned in the discussion at the end of the first paragraph on page 9.
- Page 9, second paragraph: I think this paragraph can be omitted without much loss of information.

Agreed. Omitted.

I hope you are satisfied with our revisions and I look forward to your response.

Many thanks,

Andrew Coveney,
Surgical Registrar / lecturer.