Reviewer’s report

Title: Virtual Reality among the Elderly: a Usefulness and Acceptance Study from Taiwan

Version: 1 Date: 03 Jun 2019

Reviewer: Jason Fanning

Reviewer's report:

The authors have submitted a revised manuscript describing older adults' perceptions of virtual reality across several dimensions of the TAM.

General Comments

1. The revised manuscript remains formatted in a very odd way, and requires substantial revision for grammar, spelling, and structure. The authors would be well-served by reading other literature in the area to get an idea for appropriate structure. In future submissions, it would be advisable to avoid submitting a tracked changes copy, instead highlighting relevant new additions, as it was very difficult to read this copy. And lastly, the authors should proofread the new content for clarity, spelling, and grammar.

2. The health promotion perspective sets the reader on the wrong path. Virtual reality applications designed to enhance cognitive functioning or physical activity will have a specific form and function, and will require lengthy engagement on most days of the week. The older adults in this study interacted with apps that are primarily for low-intensity entertainment purposes (e.g., passively viewing an Everest climb) or for education (arguably Google Earth VR, The Body VR). They were asked to interact with these apps in a fairly low-contact fashion (30 total weekly minutes), and seemingly could choose any of the apps to interact with. Because of this design, there is no reason to assume that the results would apply to VR applications capable of producing health effects and undertaken at sufficient frequency and intensity to achieve benefit - this is a fundamentally different use that will produce a very different experience for the older adult user.

3. The analyses are poorly described, and do not address the hypotheses. For instance, many of the hypotheses suggest mediation, but simple linear regressions were conducted. Whether relevant assumptions were checked for each analysis is unclear. The authors note that means were used in regressions, but the meaning of this statement is not clear. The full factor analysis table is not presented, so it is hard to investigate potential cross loadings or better fit across other factors.

4. The results are very challenging to follow given the authors provided only tracked changes, and as a result there are many extra figures and tables. The regression analyses are reported in a very odd fashion, and it is unclear how the models are constructed. They appear to be simple
single-predictor regressions, in which case they are equivalent to the correlations presented in the last submission.

5. Lastly, the discussion makes some fairly broad claims given the data presented. For instance, "there were no negative opinions in the use of VR" is written, despite negative questionnaire responses. The simple analyses single time point analyses cannot be used to say one factor influences another, and much of the potential information is lost without proper mediation analyses. As such, the authors might say that user experience is related to intention to use VR, but it is not clear what such a statement would add to the literature.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

No

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

No

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

No

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited

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