Reviewer’s report

Title: Falls Sensei: A serious 3D exploration game for older adults to enable the detection of extrinsic fall hazards within the home

Version: 0 Date: 19 Sep 2018

Reviewer: Susan Bello

Reviewer's report:

Please include all comments for the authors in this box rather than uploading your report as an attachment. Please only upload as attachments annotated versions of manuscripts, graphs, supporting materials or other aspects of your report which cannot be included in a text format.

Overall the paper is well written and addresses an important issue facing aging populations. The sample size is small but seems in keeping with other studies of this type. I think the conclusions would benefit from some discussion of how to disambiguate engagement due to participating in the study from engagement with the actual game in the impact of using Falls Sensei. I was also curious as to the potential audience for the game and/or plans the authors had to motivate their target audience to play the game? I would also suggest adding a definition of ‘serious game’. Is this meant to be the equivalent of an educational game? Finally, as this appears to represent only one iteration of user testing, expanding the section on future improvements would be useful. Are further iterations of testing planned? What do the authors plan to do to enhance player engagement with the game?

Please retake screenshots of the game at a higher quality. The images provided are rather fuzzy and the text, especially in Figure 2, is unreadable.

Some minor comments:
pg2. line 22: authors mention 3 most common fall hazards but then list only 2 in the parentheses, what is the third?

pg3 line 9: The sentence beginning "One study found..." is difficult to follow, I think there is a word missing

pg9 line 39: There appears to be a typo in the time stated here "increasing to 065:36 for Level 4." from the table this should be 06:36

p9 line 50: Authors state that "One out of the 15 participants.." failed to complete the SUS form but in the next sentence state that there were a total of 13 SUS questionnaires analysed. Is this a typo? If not what happened to the other SUS not analysed?

pg18 line 38: The sentence starting "The users did critique..." needs to be reworded. As written I found this very confusing.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

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

Yes

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

Yes

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 recommend additional statistical review

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

Needs some language corrections before being published

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