Reviewer's report

Title: Constructing a typology of person-environment fit constellations: basis for a scoring rationale of accessibility assessments

Version: 1  Date: 19 December 2014

Reviewer: Alberto Raggi

Reviewer's report:

I revised the manuscript entitled “Constructing a typology of person-environment fit constellations: basis for a scoring rationale of accessibility assessments” for BMC Public Health. The paper is intended to define some “profiles” of person-environment interaction based on the Enabler Methodology.

Several aspects need to undergo major revisions, here a list for the authors.

Introduction
1) This section is very long (10 pages) and contains several examples and details that interrupt reading and that, for the purposes of the study, should be dropped. The entire section should be reduced by 30-50%.

Methods
2) This section, compared to the previous one, is difficult to understand as details on the procedures are largely lacking: here examples would on the contrary be very useful to understand the procedure. As it is now, it is almost impossible to understand how the 48 typologies were defined. I suggest to include some examples and a flowchart to address the way in which the three classification interact.
3) A PCA was carried out, but it was not specified what dataset has been used to carry out the analysis. What are the features of participants? What effect these features might have on PCA results?
4) Some sections are hard to understand, e.g. page 8 (the first two dimensions … approach), page 9 (doing so…similar functioning), page 11 (This statistical approach…patterns subsumed).
5) A result is reported in methods and should be moved to the next section, page 10 (By use … functional limitations)...with this respect kindly note that the fact that a barrier correlates with a limitation does not imply that they are “similar”: they just tend to present together.

Discussion
6) In discussion you report several examples that are, actually, results and do not enable nor simplify understanding of the manuscript. The way in which typologies are identified and presented (i.e. a list of 14 numbers) is not intuitive at all: readers cannot appreciate differences between typologies, they just seem strings
to encrypt codes.

7) At the very end, in my opinion, the most relevant problem with this manuscript is that it is very difficult to imagine any practical application of this approach: you should make some effort to explain readers why is this relevant and how should us all do something with it.

Minor issues

Introduction

8) On page 7, I would close the sub-chapter on “aspects of functioning” saying that “in other words, barriers are not “universal”, but specific to a person: what hinders someone, might be neutral for someone else”.

Methods

9) Page 9, the ICF is not a classification of “physical functioning” but a classification of functioning, disability and health.

Discussion

10) mPage 14, you define that the person-environment fit constellation is wide: on what basis do you define it as wide? Do other studies exist that found – for example – 10 typologies, so you can define it as wide? I think that 48 types are not a wide number if I try to think at the different types of disability features in terms of ICF classification.

11) No limitations are reported in this manuscript.

Table 1

12) It is unclear what the numbers on the second and third column are representative of.

Level of interest: An article of limited interest

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