Author's response to reviews

Title: E-assessment of prior learning: A model for interactive systematic assessment of staff with no formal education who are working in Swedish elderly care

Authors:

  Annika Nilsson (ans@hig.se)
  Marianne Andrén (maeann@hig.se)
  Maria Engström (mem@hig.se)

Version: 3 Date: 13 January 2014

Author's response to reviews: see over
**Author's response to Reviewers (cover letter)**
Annika Nilsson
2014-01-13
Regarding manuscript (MS): 2072068805916346

Title: E-assessment of prior learning: A model for interactive systematic assessment of staff with no formal education who are working in Swedish elderly care

Dear Joseph Wherton and Christine Hartman,

We have now carefully considered and revised our manuscript based on the two reviews that were sent to us and the following is our point-by-point reply to you. The revised manuscript has been language by a professional translator.

<table>
<thead>
<tr>
<th>Reviewer 1 (JW): Major Revisions</th>
<th>Reply</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. a) I cannot determine from the paper whether the proposed assessment model was actually successful – either at evaluating/measuring staff ability or improving the care provided. I would have thought that the assessment scores would need to be validated against something else that could confirm the accuracy of the assessment tool.</td>
<td>1a) Yes, we agree and the next step will be to further test the model to other approaches/models; also evaluating/measuring staffs´ ability and study if the quality of care improved. In Sweden, several projects have been carried out in which the model has been tested; see the additional information in the introduction section on page 5 and 6. We have also added a new paragraph, “Staff members’ opinions of the e-assessments”: please, see the text marked in red on page 15 and in Table 6.</td>
</tr>
<tr>
<td>b) The lack of significance across staff (e.g. in terms of age or experience) may be an indication that his model is not sensitive enough.</td>
<td>1b) Additional information has been added on page 13; see the text marked in red and Table 4.</td>
</tr>
<tr>
<td>2. The participant drop-out rate is an important issue, and needs more discussion. If they dropped-out due to concerns of getting a low score, then that impacts validity of the data. If they dropped-out because it was inconvenient or clashed with other commitments, then that presents implications for the suitability of this assessment method in such work settings. So I think the reasons, and implications, need to be discussed.</td>
<td>2) We have performed a Mann-Whitney U test to compare background characteristics of staff who did not complete/completed all assessments and there were no significant differences; see the text marked in red on page 18 and 19 under the heading “Study limitations” .</td>
</tr>
<tr>
<td>3. The authors should give more on participants’ level of obligation to do the assessment. Was the assessment compulsory (as part of their job), or was it voluntary? How might this impact the findings?</td>
<td>3) The assessment was voluntary, please see page 10, the first three lines highlighted in red under the heading “Procedure” and page 18 under the heading “Study limitations”.</td>
</tr>
</tbody>
</table>
4. The limitations of this model need to be discussed more. Perhaps with abdicated section. For example, caring for a doll or an actor is not the same a scaring for a real person with chronic illness and mental, physical, and/or sensory impairment. So it may have been difficult for experienced care staff to actually engage in the artificial nature of the setting, and apply their experience of working with real people who have complex needs. Similarly, care of an elder can often involve a collaborative effort among care staff (rather than working alone), and relies on personal knowledge and personal relationships with the patient - which I think is lost in this formalised assessment model. Could other approaches be combined to capture these more social and subjective factors.

We agree with the reviewer and the discussion section has now been enlarged with a new heading called “Study limitations”: please, see the text marked in red on pages 18 and 19.

Comments from staff who have tested the model and the actors (a person posing as an older care recipient) have also been taken into consideration. The assessments were designed to reflect everyday practice in elderly care. Additional information about the model has been added in the introduction section; see the text marked in red on page 5 and 6.

5) Overall, I think this study is an interesting first step towards addressing a very complex challenge. However, there needs to be some way of evaluating the assessment model before it is published. One approach could be to follow-up with the care staff to get their perspectives on the new model (e.g. was it worth doing? Would they like to do it again and why? Did it influence their everyday work/practice? What aspects of care does it capture/not capture? How has it impacted the service provided?), and how it might be developed and improved further. In this way, the care staff would be co-designing the model with the research team, rather than acting as passive subjects.

We agree with the reviewer and additional information has been added with a new paragraph in the result section under the heading; “Staff members’ opinions of the e-assessments”: see page 15 and in Table 6.

We would like to inform the reviewer that in a new study, we have followed the 63 staff who completed all e-assessments. Of 63, 36 staff conducted an individual training program; of these 31 responded to the study-specific statements about the e-assessments.

### Minor opinions

1) I think definitions are needed for ‘current code’ (page 9) and ‘self-correcting’ assessment (page 9)  
   Changes have been made; see page 12.

2) The screen-shot text/code is not large enough to read (in Fig 1).  
   After discussion with the co-authors (research team) we decided to remove “the first” Fig. 1.

3) More explanations needed for each step in the Model flow diagram. For example, ‘individual competence development plan’ and ‘competence development with support’ (Fig 2)  
   Explanations have been added: please, see page 12.
| Reviewer 2 (CH): Major Revisions | 1a) Page 7, it states, “The assessments of staff members’ knowledge, skills and abilities were based on the curriculum of the upper secondary school care program and contained eight learning objectives.” It would be valuable to learn how these assessments were developed.  
1b) "Upper secondary school care program" is not something that seems immediately applicable to care for the elderly (assuming it refers instead to care provided in schools).  
1c) So how, exactly, was the assessment developed? Using what methods? What was the reliability of the assessment? Was validity assessed? Who did the rating? How were raters trained? How were the actors trained? Etc.  
2) The assessments performed are referred to as "strict assessments" in the text, but many of the assessment items in the tables could be interpreted in multiple ways, and it's not clear how they would be operationalized and rated. As just one example, what constituted "create a meaningful activity with her"? And what if someone did something that matched that but did not ensure basic health care? How was that scored? A scoring matrix with operationalized examples would be helpful.  
3) In numerous places there is mention made of comments participants made. How was participant feedback collected? Were interviews conducted? Was there any qualitative data collection component? | 1a+ c) Regarding the reliability and validity of the assessment we have added references 11, 12 and 16. Additional information has also been added: see page 5, 6 and 10. Please, note on page 15 a new paragraph, “Staffs opinions of the e-assessments”, is added and highlighted in red. See also Table 6.  
1b) The reviewer is right, upper secondary school program is not only applicable to care for older people.  
1c) These are valuable comments that will be considered much more in futures studies. A limitation with the study was that we have not performed inter-rater reliability of the practical assessments. When the raters were unsure the record was checked by two persons. In the future, it will be assessed. Please see the text marked in red under the heading “Conclusion” on page 20 and under point 1a.  
Additional information has been added: see page 9 and 10, the text highlighted in red.  
Please, see the reply to reviewer I under point 5. |
4) I am not convinced that the very basic correlation analyses add anything to this paper. An analysis of who did not participate may give more meaningful information.

Comments to the point raised about the correlation analyses: If possible, we would like to keep the correlation analyses in the paper. We feel it adds to the results since age in number of years working in the health care have been found to be associated with higher personal knowledge within the care.

Additional information has been added: see the text marked in red on page 13 and in the new Table 4 under the heading “The results of e-assessment”.

**Minor revisions**

5) There is a mention of "national occupational standards" later on in the grant. Some mention of what these are and how they are assessed at present would be helpful in the background.

National occupational standards have been described a little bit more: see the text marked in red in the last paragraph on page 4 and in the first sentences on page 5.

6) What does "formal competence" mean in light of the various definitions stated in the introduction?

It means that the staff have the formal qualifications, i.e. education required for a specific job or function.

7) Second full paragraph on p. 3: The “education and training system” of what? Does this refer to existing systems of education for Swedish elderly care staff?

Please, see page 4. It should be “…for formal learning.”

8) This sentence’s meaning is unclear as written: “Therefore it is a need to create and test several pathways into professional care there continuous training and career paths need to be developed and improved.”

We agree with the reviewer and have changed the sentence to: Therefore, there is a need to create and test several pathways to achieve what is required for professional care, see page 6 the text marked in red.

9) In the results, on p. 6, the description of the grades given in the model is not clear until one looks at the table to find the 3 grades that were given. This should be clear both in the text and the table.

Additional information has been added: see the text marked in red on page 8 and 9.

10) It is not clear exactly how long the assessment took. The text states 8 hours, but there was also a 2-hour orientation? Is this included in the 8 hours? And what about individuals who were given twice as much time—for these 10 it took 16, so about 2 working days? Was that a hardship?

The 2-hour orientation is not included in the 8 hours. Regarding the individuals who were given more time, that was in the theoretical assessments. Additional information has been added: please, see the text marked in red on page 9.

11) There is mention made on p. 8 of a “course.” What course? This was an assessment, not a course, correct? This language is confusing.

It is an assessment not a course and has been corrected.
To the editorial office: Regarding the “first Figure 1”, the images were specially arranged to show how the e-assessments were carried out. People in the images were teachers and actors (persons posing as an elderly care recipient) who work with the e-assessment model. All persons approved participation in this way and gave us permission to publish the images. Even though we received permission from everyone and after discussions with the co-authors (research team) we decided to remove “the first” Fig. 1. Regarding Figure 2 (now Fig. 1) no images of people are shown.

We thank the reviewers for their helpful comments. We feel the changes have improved the manuscript.

Best regards on behalf of all the authors,
Annika Nilsson