Reviewer's report

Title: Language, culture and international exchange of virtual patients.

Version: 1 Date: 18 November 2012

Reviewer: Fabrizio Consorti

Reviewer's report:

The paper addresses a relevant issue, that is the cultural influence in repurposing virtual patients (VPs), but is rather confused in its design and shows also some relevant methodological flaws.

Major compulsory revisions

1. Abstract: the abstract is in some way misleading when it states "The students worked on eight VPs". Each student worked only on two VPs out of 4+4. The rest of the abstract does not clarify this point, which is methodologically crucial.

2. page 3, end of Background: "The present research tried to unequivocally answer the question before mentioned"

There is not any question before this sentence. Since this study aims to be a quasi experimental study, please state in an explicit way the research hypothesis.

3. the study considers two distinct groups of students of two different years. In the Discussion (pg. 8 line 19) the authors state "The 2010 and 2011 groups of students had similar background and training", but since a pre-test of any kind was not performed, there is no evidence that the two groups had a similar level of knowledge and skill. Please, acknowledge this point in your Discussion.

4. Study design: the authors should provide justification of their choice of submitting only two (1 Romanian + 1 English) out of 4 possible VPs. (The choice is among 4, because presumably the same case was not given to a student in both the Romanian and English version). Why did the author choose to halve the number of VPs for each student, in considering that the higher the number of items in a test, the higher is the reliability of the test? This is even more relevant in dealing with clinical cases, where the "case specificity effect" described by G.Norman is at work.

5. Checklist: "The diagnostic, therapeutic plan and diagnosis justification were analyzed and graded using checklists developed by the case authors". It seems that different case authors developed different checklists, but this fact could strongly hamper the reliability of the assessment. Were the checklist validated in any way? Were guidelines to develop the checklists in a consistent way available?

6. Interactions: why were only the first 25 interactions considered? what does it mean? Twenty-five for each section? what about a student not reaching the end
of the exercise within 25 interactions? How can the mean number of history questions be 49 for example (see Table 1) if you cut the interactions to the first 25? This point is not clear, please explain better and in more details.

7. Tables:
- Table 1 and Table 2 seem to be not aligned. For example in Table 1 the mean time/case for VPs developed in Cluj in 2010 in Romanian is 47.00 s.d. 25.69. In table 2 the same variable is 47 s.d. 31 (row 4 of the table). Please check carefully the consistency.
- Why did the athor use a one-tailed test in Table 1? Was the experimental hypothesis strong enough to allow this assumption?
- Please explain what does Asymp.Sig. in Table 2 mean and how does it refer to the Mann-Whitney test quoted in Methods

Minor Essential revisions

line 11 in Methods: " [cases]... were considered of medium difficulty and very good, in terms of content, design and media." Who assessed the cases? Where they self-assessed by the authors or were they assessed by external reviewers? Please specify

line15 in Methods: "The total repurposing time for the four cases". The beginning of the paragraph just states"VPs developed by the academic staff" without any number, so the reader must guess that they were four. Please specify

line 8 pg. 4: "free text questions re. diagnosis, therapy". What does re. mean?

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Not suitable for publication unless extensively edited

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests