Reviewer's report

Title: Comparing 3D foot scanning with conventional measurement methods

Version: 2
Date: 12 August 2014

Reviewer: Matt Carroll

Reviewer's report:

All minor essential revisions

Abstract

Background
This section does not read well. The statement needs to explain the importance or identify the gaps in research in a sentence or two which it currently does not.

Methods
Section does not read well missing some words and tense is incorrect

Results
Confusing to read, tense also incorrect

Conclusions
Sentences need restructure, I don’t understand the last sentence on lines 5, 6 & 7.

Background
Reference required for first sentence line 2
With regard to the sentence lines 2, 3, 4:
‘Wearing footwear that does not fit customer’s foot characteristics may increase the risk of having lower extremity musculoskeletal problems, such as ankle injury and chronic pain [1]’ The reference is not appropriate, the reference is referring to footwear and injuries in rockclimbing.
Amend line 8 due to repeat of the word using
Reference required line 12
Restructure sentence line 12: ‘Different measurers may get different measurement results’
Restructure sentence line 13-14: ‘Thus, adequate training to the measurer such as positioning landmarks on anatomical point is very important’
Restructure sentence line 14-16: Using the ink footprint to collect foot dimensions can reduce the experimental time (about 30s) and the ink footprint data can be used for measuring foot dimensions and calculating arch index later on at a convenient time.
Restructure sentence line 16-18: But the limitations of ink footprint are that it
cannot measure vertical dimensions (e.g. navicular height) and the quality of the ink footprint may influence the precision and accuracy of the measurements.

Some studies applied the

Lines 3-5 page 5: very ambiguous sentence, in what context, very general statement ‘Some studies applied the 3D scanner to collect foot dimensions and for various applications [2,3,8-16].’

Lines 9-11 sentence restructure required, needs to be more specific in the context of the background

‘Some comparison studies were conducted to evaluate the differences of measurements using
different instrumentations. ’What comparisons?

Lines 10 -16 page 6 requires a restructure there are some redundant words in the paragraph.

Overall the introduction is quite bulky and could be condensed to make it a bit more punchy and interesting to read.

Methods

Good improvement on first draft reads well. Tense throughout the section need to be corrected. i.e. should be written in past tense. There are also a few missing words. Can this section be condensed as it is quite lengthy.

Results

Consider restructure of all paragraph beginnings i.e. Table 4 shows…. Becomes repetitive when reading.

Discussion

The discussion reads better than the first draft, however it still does not flow well when reading. I am having difficulty reading what your main messages are due to this issue. I can see the main points which are valid but many of the paragraphs have redundant words and the discussion is quite lengthy, many of the paragraphs could be condensed making the message clearer.

Conclusion

Please consider a restructure of the conclusion as it repeats the results section.

**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:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**
I declare I have no competing interests