Author's response to reviews

Title: The kinematics of upper extremity reaching-a reliability study on people with and without shoulder impingement syndrome

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Author's response to reviews: see over
Dear Doctors Chan and Kurosaka:

Please find the revised version of the manuscript entitled: “THE KINEMATICS OF UPPER EXTREMITY REACHING: A RELIABILITY STUDY ON PEOPLE WITH AND WITHOUT SHOULDER IMPINGEMENT SYNDROME” (MS: 1678488015325353). We would like to thank the reviewers for the time and energy they put in the review process of this article. We would also like to thank Sports Medicine, Arthroscopy, Rehabilitation, Therapy & Technology for giving us the opportunity to comment and act on the recommendations of the reviewers.

As suggested by Reviewers #1 and 2, Figures were added to show the initial position and the position at the end of the movement. Furthermore, details were added to describe the target, and the sensors and the triads of infrared light-emitting diodes are shown on the Figures.

The next pages respond, point-by-point, to the comments and concerns raised by the two reviewers. We thank you for the time and energy that will be put into the review process.

Sincerely yours,

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**Reviewer #1**

1. **Title:** Is it a mistake? "reaching-a"

   “reaching-a” was changed for “reaching: a”

2. **Methods, Study design and experimental procedures section:** I think I would add some photo to describe your test setup and testing movement. Because it would enhance the repeatability for other researcher.

   Two figures were added: one for the starting position (Figure 1), the other for the position at the end of reaching.

3. **Methods, Measurement section:** I suggest using the "Sternoclavicular joint" rather than S/C joint here.

   As suggested, S/C joint was changed for sternoclavicular joint.

4. **Methods, Measurement section:** Are you meaning (Difference between minimum and maximum absolute angles)?

   The change was done: “…difference between minimum and maximum absolute angles…”

5. **Results, First paragraph:** Better to consist with the wording from the figure or the figure to consist with the wording. Please also revise the use of these wording either "last five trials" "first two trials" or "5 last trials" "2 first trials" etc

   As suggested by the Reviewer, changes were made throughout the manuscript and the Tables/Figures in order to be consistent with the wording. First two trials, first five trials and last five trials were the wording chosen for the manuscript.
REVIEWER #2

Major compulsory Reviews

1. I have had great problems envisaging the actual assessment process. I am unaware of the size of the target and the sensor, and feel I am unable to carry this assessment out due to the lack of information. Photographs of the sensor and target would be a help, as would be the dimensions of them both.

Two Figures have been added to illustrate the starting position of the task and the position at the end of reaching. On the Figure 1, a position sensor is shown. In Figure 2, examples of triads of the infrared light-emitting diodes are shown, as well as the target.

The following details on the target were also added in the Methods section: "The target was located in the frontal plane and positioned at a distance equivalent to the subject’s arm length and at a height equivalent to the position of the second finger when the shoulder was at 90° of abduction (Figure 2). It was a round target and the diameter of its bull’s-eye was 4.5 cm (Figures 1 and 2). With their second finger, the subjects had to point the bull’s-eye of the target. A pressure switch was also placed under the bull’s-eye of the target to signal the end of reaching."