Reviewer's report

Title: Influence of pain location and hand dominance on scapular kinematics and EMG activities: an exploratory study

Version: 3  Date: 22 July 2011

Reviewer: Peter Rundquist

Reviewer's report:

General Comments
You have done a good job resolving the majority of my initial comments/concerns. Several additional ones are outlined below.

- Major Compulsory Revisions

1. Abstract, Results section – It is unusual to see effect sizes presented as ANOVA results. F (including degrees of freedom) and p values are more consistent. If effect size is deemed appropriate, it should be spelled out the first time.

2. Background, hypothesis statement – the pain location description is inconsistent with the remainder of the manuscript. Is the pain in the dominant arm or in the neck on the dominant side?

3. Results, Scapular kinematics section – Similar ANOVA results presentation concern as outlined in the Abstract comment above.

4. Results, Scapular kinematics section – Utilization of a 95% confidence interval does not take the number of pairwise comparisons into consideration. As you have outlined 5 it should be a 99% confidence interval (.05/5 pairs = .01).

- Minor Essential Revisions

5. Background, paragraph 2 – the term “motor abundance” is unclear.

6. Background, paragraph 2 – The Matsuki reference should be mentioned with the Freitas and Crosbie references at the beginning of the paragraph.

7. Methods, Measurements section, paragraph 2 – Chronic neck pain would be more consistent than “chronic neck problems”.

8. Methods, Measurements section, paragraph 4 – A one-way ANOVA would confirm that the 3 trials were not statistically significantly different from each other.

9. Results, EMG section – Outline the statistical methods used.

- Discretionary Revisions

10. Methods, Measurement section, paragraph 3 – A figure would be useful to clarify the wooden frame utilized to guide the testing movement.
**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

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

**Declaration of competing interests:**

I declare that I have no competing interests