Reviewer's report

Title: Reliability of upright posture measurements in primary school children

Version: 3 Date: 9 September 2004

Reviewer: Daniel Chow

Reviewer's report:

General

- Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. As commented in the last review, paired t-test is not adequate to demonstrate the test-retest reliability of measurements as non-significant results can be resulted due to large measurement errors. In particular from the results presented, the null hypothesis was accepted with p-value set at 0.01. Why was such a low significant level chosen? I suggest the authors should use the Intra-class correlation coefficient method to demonstrate the reliability. Reference can be found from book by Portney & Watkins (2000) "Foundations of Clinical Research. Applications to Practice".

2. The authors used effect size of 0.5 suggested by a reference to estimate the required sample size and so to justify the sample size is adequate to achieve the power of 0.8. It is difficult to comment whether it is correct or not. I suggest the authors should use the effect size directly derived from the results to do such estimation. In fact, a simple power calculation can be done to demonstrate to what level of power that the results had achieved.

3. The correlation coefficients for correlating postural angles with height, weight and motor control are given in table 4 while those for details for the key findings, i.e. correlation with age and pain, are not given. It is suggested to include this information in the presentation.

4. As shown in figure 3, neck angle and head on neck angle had relatively little difference among groups. This is not consistent with the conclusion that "increasing age influenced four of the five posture angles."

- Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

- Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article whose findings are important to those with closely related research interests
Quality of written English: Acceptable

Statistical review: Yes