Reviewer’s report

Title: Anthropometric, physiological characteristics and rugby-specific game skills of schoolboy players of different age categories and playing standards

Version: 0 Date: 13 Sep 2019

Reviewer: Anthony Blazevich

Reviewer's report:

The current study examined the utility of the SCRuM test batter to discriminate between different age groups and levels of attainment in rugby union football. The main findings were that, with exception of skinfolds, test performances increased with age. Also many tests were found to discriminate based on level of player. The paper is generally well written, however it would be very worthwhile looking again at the Discussion section to try to condense several sections. The length of Discussion is such that some of the important findings are lost; reduction to ~5 pages would be a worthwhile goal.

Other comments that might improve the manuscript include:
Page 2 (Abstract)
line 4: comma after 'rugby'.
line 11 and throughout: When used in this context, 'age-category' can be written 'age category'. If, for example, one wrote 'age-category differences...' then the hyphen is appropriate, but otherwise it would be wise to remove it throughout.
line 21: consider 'Under 19 age categories were...'
line 33: 'Age categories had a significant...' 
line 44: Change to 'two-way'
line 46: consider 'vertical jump height (VJ), 2-kg medicine ball chest throw (2-kg MBCT)...' Note the use of hyphen again. E.g. a ball of 2 kg, but a 2-kg ball.
line 53: Unfortunately I couldn't understand this sentence. Can you reword to clarify? Also consider '...in Under 19s, whereas the 2-kg MBCT...'.

Page 3
line 1: consider '...with age, highlighting a relative sensitivity...'
line 6 onwards: This conclusion is not sufficiently specific so as to be of real use. It would be ideal to include a final sentence instead that strongly summarises the outcomes and benefits.

line 10: 'player's attributes'.
line 23: consider '...showed that body mass and height, but not skinfolds, of elite...' (then delete skinfolds on line 24).
line 45 and throughout: this should read '40-m', e.g. 'speed over 40 m' but '40-m speed'. Also a '20-m run', etc. These can be changed throughout the manuscript.
line 53: should 'and' be removed before 'training interventions' here?
line 87: delete 'a total of'
line 88: Although it's highlighted at the end of the paper, it is useful to briefly acknowledge that all data were collected on a group from a single school. Also, it doesn't appear to be mentioned how many subjects are in each group, each age category or level, for example.
line 118: there is no need to capitalisation of 'One-Repetition Maximum and other tests. They can be in
lower case even if the abbreviation/acronym is capitalised. Also, 'one-repetition maximum' should be hyphenated, so the abbreviation is '1-RM'. Finally, of course, you should change to '60-s push-up test'.
line 164: change 'compared to' to 'than'.
Table 1 and others: Remove vertical lines from tables.
line 203: change to 'post-hoc' (also note '20-m' and '40-m' in this paragraph).
line 230: It's better to quote the variable rather than test, so is this 'VJ height'?
line 251: 'effect of playing'.
line 262: change to 'anthropometric'.
line 266: 'post' is a latin prefix, not a word. So it must link to a word. Here you can use 'post-peak height velocity', or simply use the word 'before'.
line 267: change to 'after puberty'.
line 271: delete 'growth'. I understand the androgen affects growth, but the specific label 'growth androgen' is not necessary here.
line 274: consider '...explain the higher scores for...' 
line 281: insert comma after 'levels'.
line 289: consider '...were observed despite the...' 
line 293: consider 'after' or 'post-U16'.
line 296: consider 'In contrast to the study hypothesis that elite rugby players would have a reduced...' 
line 302: change to 'has previously been' 
line 304: 'school children'
line 306: change to '...better than non-rugby players, possibly...' 
line 321: I'm not sure it helps to abbreviate RL. Consider writing rugby league in full to help the reader. 
line 323: although it's not incorrect to use '505', it can help the reader to avoid confusing by using '5-0-5'.
line 327: change to 'sub-elite players in sprinting...'
line 336: change to 'strength tests' 
line 344: change to 'showed a significant' 
line 354: change to 'could have contributed to this...' 
line 364: By 'this' do you mean the study you just referred to, or your current study (i.e. 'the present study...')
line 364: consider inserting commas before 'with a modified' and then on the next line before 'showed that elite'.
line 379: delete 'want to'
line 419: insert 'are' before 'unclear given'.
line 420: This sentence is confusing. Can you revised to clarify?
line 423: 'the possibility of...' 
line 425: It's not clear what 'heightened training' means. Can you add some more descriptive terms here?
line 427: consider '...jumping activities that required the production of significant lower-body...' 
line 467: check over- and under-estimating.

Figures: Ensure that x and y axis labels are capitalised; consider increasing font size of numbers and titles on axes so they can be easily read (especially since figures are reduced in size for publication); and remove decimal places on y axis of Figure 4.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes
Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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Nil

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