

Review of Doctoral theses

Reviewer: Martin Zvonar

Work title: The relationship between some kinematic parameters with the performance level of Egyptian high jumpers

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Theme of Dissertation work is actual, all athletes constantly striving to improve, as well as the process of selecting talent is constantly evolving in connection with the development of technology, material security and also the economic situation.

Dissertation in this direction brings new insights that can be used by coaches and athletes who aspire to a higher position on the international level.

The title work is noted that were compared some kinematic parameters. I would like to see explained why these were used just for a deeper introduction to the topic and a list of all kinematics parameters.

The methodology is adequate to meet the set objectives.

Meeting the objective is clearly stated in the conclusion.

However, author could have used more 3D kinematic analysis and monitor other segments of the body, not just the center of gravity.

Formulation of hypotheses could be more specific, especially with regard to the quantification of differences of selected kinematic parameters and outline the causes of variance. (independent variables)

Page 58 contains a description of the files that belong to the methodological section, not in the result. Quite it changes the composition of standard quantitative researches.

The form of the work is at a sufficient level and scientific language achieves the required professional quality. Even though it is at work there were some grammatical errors due to the fact that the author did not write the work in its rodmen language.

For example, not given constant time and gender, as well as page 13 end of the first paragraph, where the small letter at the beginning of sentences, like on page 68 in the second sentence of the second paragraph. Furthermore careless mistakes on page 34 in paragraph 3 citing Pearson, which does not in literature, as well as a list of literature is inconsistent (dashes and dots for names, capitalization. On page 48 is missing prescription of the high jumper no. 5. On page 49, last sentence of the first paragraph talks about "the imensional" instead of three dimensional.

On page 30 is missing name of the image number 8 Page 50 contains the grammatically incorrect name for the image. List of symbols should be sorted alphabetically.

Part “Results” of the work includes theoretical passages with long quotations, which should be rather theoretical part.

Overall, chapter describing the work is clear and understandable.

Descriptive assessment of the Egyptian High Jumpers is a very valuable source of information and guidance for further improvement Egyptian jumpers school. In particular, Figures 21 to 23 illustrate the transition from horizontal to vertical speed and demonstrate the centrality of optimal timing.

The main contribution of the work is scientific view of the relatively specific for and for Egyptian athletics relatively unexplored area. This work presents the scientific knowledge and particular incentives for high jump coaches.

The present study meets the demands of doctoral theses by the Order of DS and therefore I recommend it to the defense.

Questions:

1. Which model is used to calculate the center of gravity?
2. Why are Egyptian jumpers so different in frame of somatic parameters from world leaders?
3. Comparison of the transition from horizontal to vertical velocity sounds too surprisingly for the world's high jumpers (page 67). What method (2D, 3D, ..) and who have been measured top world jumpers. Why Egyptian jumpers reach only 50% relative horizontal and vertical speed of top jumpers?

Brno, 24.5.2013