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|  | **Review of Dissertation Thesis** |
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|  | *Palacký University Olomouc – Faculty of Physical Culture* |
|  | **Title:** | **Biomechanical Factors Contributing to the Volleyball Spikes Success Rate among Young Elite Volleyball Players** |  |
|  | **Author:** | **Javad Sarvestan, MSc.** |  |
|  | **Reviewer:** | **David Zahradník** |  |
|  | **Reviewer’s affiliation:** | **University of Ostrava, Faculty of Education** |  |
|  | **Academic year:** | **2021/2022** |  |
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|  | ***Please, assess the dissertation thesis using the following criteria. Provide specific comments respecting the research focus of the dissertation thesis.*** |  |
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| **1** | **Is the topic up-to-date? Is the work original?** |  |
|  | *The author has presented an original work that addresses current issues focused on performance enhancement in volleyball. The separate sub-studies included in the dissertation are logically related to each other.* |  |
| **2** | **Does the introduction part of the thesis provide sufficient background and overview of the up-to-date literature from an international perspective?** |  |
|  | *The dissertation consists of four published studies in peer-reviewed journals licensed in the Web of Science and Scopus databases. In the Introduction, the author focuses on and highlights the important components associated with performance during volleyball spikes. On the basis of these components, the author formulates the general questions, general objective, specific objectives, research questions, and hypotheses.* |  |
| **3** | **Was the study properly designed? Were adequate research methods and techniques used?** |  |
|  | *All studies included in the dissertation have been peer-reviewed in the relevant journals. The individual studies are properly designed and the methods used are adequate.* |  |
| **4** | **Were the objectives stated properly? Were they met?** |  |
|  | *The aims and hypotheses of each study are well formulated and were met within each study. The aims and hypotheses stated in chapters 1.3, 1.5 are formulated differently than in the original studies. However, the aims and hypotheses correspond in meaning to the original studies. I view the inclusion of chapter 1.4: Research Question as redundant.* |  |
| **5** | **Are the results processed and presented properly?**  |  |
|  | *The peer review process of the individual studies is a good prerequisite for a clear presentation of the results. The results of the sub-studies are presented in a clear and illustrative manner.* |  |
| **6** | **Are the results interpreted and discussed appropriately? Are the conclusions well formulated?**  |  |
|  | *I very much appreciate the discussion, especially for studies 3 and 4. The author discusses the complex movement skill of the spike in volleyball in terms of coordination variability in different conditions. Given the unique execution of the skill between subjects and between trials for a particular participant, I recognize the difficulty in discussing and formulating conclusions.* |  |
| **7** | **Are the results usable in practice?** |  |
|  | *The results of the work are applicable to training practice. I agree with the author that coaches are mainly focused on improving jump height and neglect arm training during the attack. The factors which significantly affect jump height in the lower limbs and spike success are trainable during practice.* |  |
| **8** | **Is the work clear and logically structured?** |  |
|  | *The basis of the thesis is four published studies accompanied by an introduction including the formulated aims and hypotheses, and a discussion including a statement of limitations. The individual studies are logically related to each other in their content.* |  |
| **9** | **Is formal processing, language, and stylistic level of the work appropriate?** |  |
|  | *The work is formally and stylistically on a very good level.*  |  |
| **10** | **What is the contribution of the work? Please identify the strengths of the work.** |  |
|  | *The work provides new information that is useful in training practice. Recommendations for practice are based on the results of experimental studies. I very much appreciate the approach that the author has used in dealing with the dissertation.* |  |
| **11** | **What are the weak points of the work? Please identify the weaknesses if any.** |  |
|  | *The author has dealt with a very complex movement and lists the limitations in each sub-study.*  |  |
| **12** | **What are your suggestions and questions that should be discussed during the defense of the dissertation thesis?** |  |
|  | *Please explain the low standard deviations in the time and length variables if the participant (middle vs wing spikers) used two different types of sets in Study 2.**Could the definition of faulty spike influence the significant differences in angular velocity of upper limb between successful and faulty spikes in Study 3 (page 41)?* |  |
| **13** | **What is your overall evaluation of the dissertation thesis?** |  |
|  | *The author has presented an excellent work whose sub-studies form a logical story. The results of the work are practically applicable. I believe that trainers in the Czech Republic will be receptive to this new information.* |  |

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|  | **Final recommendation:** | **I recommend** the dissertation thesis to be defended. |  |
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|  | **Date:** |  July 1, 2022 |  |
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