

OPINION

for the merits of the doctoral thesis on the topic: ***"Beach volleyball as a means of increasing the physical workability of students"***

for awarding of the educational and scientific degree "***Ph. Doctor***"
in the field of higher education: ***7. Healthcare and sports,***
professional direction ***7.6. Sports,***
doctoral program ***„Theory and Methodology of Sports Sciences“***

of ***Boris Mitkov Yankov –***

PhD student at the ***Basketball, Volleyball, Handball Department***
at the ***National Sports Academy "Vassil Levski" (Sofia)***

Scientific supervisor: ***Full Prof. Dimitar Mihailov, Ph.D***

Data on the PhD candidate

Boris Yankov graduated with a bachelor's degree at Shumen University "St. Konstantin Preslavski", with the acquired professional qualification "Physical Education Teacher", and then, in the same place, he obtained the Master's Degree in Physical Education and Sports in 2015.

His orientation towards a doctoral degree at National Sports Academy "Vassil Levski" is completely logical, mainly for two reasons:

- Active sports-competitive activity for 12 years, as a professional volleyball and beach volleyball player. He is Winner of republican titles in both sports, participant in 10 World tournaments in beach volleyball, Champion of Romania and Winner of the Country's cup with the Constanta team, 2 times Balkan champion in beach volleyball;
- Long-term pedagogical activity, as a Senior teacher of physical education and sports (volleyball) at the Medical University "Prof. D-r Paraskev Stoyanov" (Varna) and Coach of the volleyball teams (men and women) of the same university.

Boris Yankov is a recognizable personality, an expert in volleyball and beach volleyball and he possesses highly developed skills for conducting a training process, as well as for organizing volleyball competitions.

Details of the procedure

Boris Yankov was enrolled as a doctoral student in part-time study at the "Basketball, Volleyball, Handball" department for a period of 4 years, by order of the Rector of the National Sports Academy "V. Levski", effective from 01.10.2019 (OR - 1414/30.09.2019). He was dismissed with the right of defence as of 23.03.2023 (OR - 283/28.03.2023). It is noteworthy that Boris Yankov is one of the very few doctoral students who managed to complete his dissertation work within the period of study.

No procedural violations were committed during the doctoral studies. The doctoral student has successfully fulfilled the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria and the Regulations of the National Sports Academy "V. Levski" for its application.

The examination of the dissertation submitted for defence by the competent authorities found that "...no unacceptable limits of plagiarism were established".

After a successful intra-departmental discussion of the dissertation work, a procedure for conducting a public defence before a scientific jury was launched with an order of the Rector of the National Sports Academy.

Data for the dissertation and the abstract

The problem developed in the dissertation is extremely relevant and aims to raise the level of the educational and training process in physical education and sports in the higher, non-specialized in sports schools in Bulgaria. The implementation in practice of a new, scientifically based methodology for sports training in beach volleyball is a prerequisite for increasing the level of physical workability of students, as well as for solving a number of problems related to the healthy lifestyle of young people in our country.

The peer-reviewed doctoral work was developed in a volume of 207 pages. It is structured according to the requirements for a similar kind of scientific materials. It is written in good language and style and is accurately illustrated.

The development has a number of qualities that are undoubtedly of a ***contributing nature***:

- A serious theoretical analysis was carried out (with the help of 82 literary sources, of which 37 in Cyrillic, 39 in Latin and 6 websites), which allowed to reveal the peculiarities of physical education and sports in higher schools, as well as to make retrospective analysis of the origin and development of modern beach volleyball. Of high informational value is section I.3, in which the peculiarities of motor activity in this sport are revealed and a competent analysis of the various aspects of sports training is made, in a comparative plan with traditional volleyball. All this allows the doctoral student to correctly formulate his working hypothesis.

- An appropriate methodological toolkit was used, which makes it possible to solve the goals and tasks of the research at a high level. A survey was conducted to reveal the attitude of students from the Medical University in Varna to beach volleyball and their willingness to practice this sport within the framework of physical education and sports activities. A sports-pedagogical test was conducted to establish the level of physical fitness of the students from the experimental and from the two control groups. The attached test battery fully meets the requirements of sports statistics for accessibility, validity, reliability, objectivity and standardization of the test exercises included in it.

- The research contingent is sufficiently representative - a total of 53 students, not specializing in sports, participated in the sports-pedagogical experiment, of which 15 engaged in organized beach volleyball, 16 – with basketball and 22 – with football. A total of 102 students between the ages of 19 and 22, including 35 foreign students, have filled in the questionnaire regarding the place of beach volleyball in non-sport-specialized higher schools.

- In processing the empirical data from the study, adequate mathematical and statistical methods were used, with a high level of statistical reliability ($P \geq 95\%$), including alternative and variance analyses, null hypothesis testing, using Student's t-test and one-way analysis of variance.

- The analysis of the results was done at a high professional level in several directions:

- the average levels and the variability of the examined signs of physical performance both at the beginning and at the end of the sports-pedagogical experiment were revealed;
- a comparative analysis of the results of the experimental group with those of the two control groups (i.e. the volleyball players with the basketball players and the football players) was performed and the significance of the observed differences between the average levels of the investigated signs was proven, with a high degree of statistical reliability;
- the effectiveness of the applied own methodology for sports training in beach volleyball for students from non-sports-specialized higher schools in Bulgaria has been prove.
 - I especially want to emphasize, as a positive moment in the development, the conducted study of the functional state of the students, the results of which are a good basis for exercising control over the applied training effects by the teachers.
 - The new, scientifically based methodology for sports training in beach volleyball has a particularly high practical value, including complexes of general-developing warm-up exercises and a curriculum, the implementation of which in the practice of non-sport-specialized higher schools is a prerequisite for increasing the level of physical working ability of students, as well as for solving a number of problems related to a healthy lifestyle of young people in our country.

Conclusions are presented concisely and clearly and flow naturally from the analysis of the results. The recommendations are aimed at practice and are proof of the high professionalism of the author of the reviewed dissertation work.

In the development, however, some mistakes and inaccuracies were made, which give me reason to make some *remarks*:

- greater precision is needed when dealing with authors and preparing the list of literary sources;
- the research contingent presented on the page 51 is not complete – the students who are filled the questionnaire are missing, or at least another 49 who were only surveyed;

- "questionnaire survey" is not a mathematical-statistical method, but a research method - its results are processed using the so-called alternative analysis, which is not specified in section II.5.2;
- some inaccuracies were made in the description of the sports-pedagogical tests:
 - 30 m sprint is not an acceleration test;
 - test 4 (running with a change of direction – left/right) is not for speed of movement, but for speed endurance;
 - sit-ups and throwing a solid ball carry information not just about the strength, but about the explosive power, respectively, of the abdominal muscles and of the upper limbs and shoulder girdle;
 - the step-test cannot be conducted with a stopwatch, a special computer program or at least a metronome is needed;
- I want to draw the doctoral student's attention to the fact that the analysis of variation reveals the degree of homogeneity (uniformity) of the studied population in terms of the signs for which the relevant indicators carry information, and not the indicators themselves (for example, the group cannot be homogeneous or heterogeneous in with respect to the Wall Squat test, and with respect to the strength endurance of the quadriceps of the students involved in it);
- the coefficients of variation can be represented in figures in the form of column charts or as scatter zones, rather than as development lines (for example, Fig. 9, 10, 12, etc.);
- a large number of spelling mistakes were made, which causes a negative feeling of reduced precision in the preparation of the final product.

The abstract is developed according to the requirements and correctly presents the content of the dissertation work. The documents accompanying the work are prepared accurately and precisely. In accordance with the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria and the Rules of the National Sports Academy "Vasil Levski" for its implementation, 3 scientific publications are presented that are related to the topic of the development.

In conclusion, I believe that a large volume of scientific research work has been carried out, which includes a thorough theoretical study of the researched problem, stable organization and conduct of correct scientific research, professional analysis of its results and development of a scientifically based methodology for sports training in beach volleyball for students from non-sports-specialized higher schools in our country.

The doctoral dissertation has a high scientific and applied value and meets the requirements of the Law on the Development of the Academic Staff of the Republic of Bulgaria and the Regulations of the National Sports Academy "Vasil Levski" for the acquisition of the educational and scientific degree "***Ph. Doctor***".

All this gives me the reason, fully convinced, to state my ***positive vote*** for awarding ***Boris Mitkov Yankov*** the educational and scientific degree "***Ph. Doctor***" in the field of higher education ***7. Healthcare and sports***, professional direction ***7.6. Sport***, Doctoral Program "***Theory and Methodology of Sports Science***".

26.04.2023

Sofia

Reviewer:.....

(Full Prof. Rossitza Tzarova – PhD)