**R E C E N Z I A**

For Martin Yordanov's doctorate on the topic "The effect of extracurricular activities on the physical fitness of 15-16 year old students" for the acquisition of the educational scientific degree "Doctor" in professional field 1.3. Teaching pedagogy (Methodology of training in physical education and sports)

Prepared the review: Assoc.Prof. Anton Hizhov – PhD

The structure of proposals for doctoral review is standard and generally accepted for this kind of work. The presented doctorate of Martin Yordanov on the topic "The effect of extracurricular activities on the physical fitness of 15-16-year-old students" is in a volume of 175 standard printed pages, including a literature review and appendices, and is structured in an introduction, 3 chapters, conclusions and recommendations, bibliographic reference for references, appendices and contributions. The literary overview includes 137 literary sources, of which 108 are in Cyrillic, 22 are in Latin, and 7 internet sites.

The presented development treats and develops a rather significant problem of school education in the subject "Physical education and dispute" and specifically the influence of activities with additional motor activity in the extracurricular form of activities on the physical performance of students from the first high school stage - 9th grade. Against the background of increasing hypodynamia among adolescents and especially among students from the first high school stage of education, the almost continuous work with electronic devices, the topic developed by the doctoral student is particularly relevant and dissertable and represents a contribution to the increasingly widespread entry of activities with new, attractive and sports activities sought by students in physical education education.

In the first chapter entitled by the doctoral student "State and statement of the problem according to literary sources" on 60 pages, the candidate presents us with the state and problems of physical education and sports in secondary education in the Republic of Bulgaria, defines the role and place of extracurricular activities in physical education and sports and makes a fairly extensive review of scientific research in the specialized literature, the content and structure of the concept of "physical fitness". Here

the doctoral student introduces us in detail to the Peculiarities of school age (from 12 to 17 years), physical development and motor activity and dwells in great detail on the essence of sports training and follows in detail the methodology for the development of the physical qualities of strength, speed, endurance, agility and flexibility .

The views, comprehensive analysis of the literary sources, conclusions and judgments of the doctoral student logically lead him to the formulation of the working hypothesis, namely that "by applying in extracurricular time a program for additional motor activity developed by us, the physical fitness of 15-16 annual students" which is required by the review of the literature and analysis of the state of the problem.

A very good impression is made by the fact that the doctoral student complied with the constructive notes regarding the title of the chapter and changed it from "Literature overview" to "Status and statement of the problem according to literary sources".

The above also applies to the title of chapter two. It was titled by the doctoral student "Aim, tasks and methodology of the research". After the suggestions of the reviewers in the proposed original, the title is "Methodology and organization of the study". The doctoral student formulates the purpose of the research, namely, by applying a developed from us a program for additional motor activity to improve the physical fitness of 15-16 year old students. The goal is formulated correctly and corresponds to the title of the development.

The tasks of the study / 7 in number / are formulated precisely and are sufficient to achieve the above goal. On the basis of the defined goals and tasks, the doctoral candidate forms the contingent/subject and the subject of the development. The object of the research is correctly formulated, namely the dynamics of the investigated indicators after the implementation of the experimental program for additional motor activity.

The research methodology is correctly chosen, and the used toolset of methods and tests are fully sufficient for the achievement of the set tasks and the correct and comprehensive analysis of the results. The used test toolkit is described in sufficient detail. The PhD student is fluent in a wide range of research methods, which she knows in detail.

The contingent / subject of the study includes 60 students from the 9th grade divided into an experimental and a control group of 30 students. The organization of the study took place in three stages in the period 2020-2022.

Logically, the chapter ends with the presentation of the author's development of "Program for additional motor activity in extracurricular time" which represents the main scientific contribution of the doctoral student. The program is presented in a sufficiently comprehensive manner and describes in detail both the goals and tasks as well as the distribution of the educational material by sports, the number of hours distributed within one school year and according to the age characteristics and capabilities of the students /table. 5, p. 76/. The expected effect of the implementation of the program is reasonably determined in the analysis of the results and conclusions of the development.

In the chapter "Analysis of the results", the doctoral student has analyzed the data obtained from the conducted tests and surveys among students and teachers from other - different from the FVS academic disciplines. The conclusions made on the basis of the analysis of the answers to the questions have helped the doctoral student in determining the content and approving the individual training units of the experimental program for additional physical activity.

Also of interest are the conclusions of the survey conducted among teachers of academic disciplines outside the FVS. They clearly showed the doctoral student the need for a deeper development of the physical fitness of the students, as well as for increasing the hours of the "Physical Education and Sports" discipline.

The results of the conducted anthropometric studies and the study of the degree of physical fitness were processed and analyzed using the statistical methods of variation and correlation analysis.

All analyzes were done correctly and according to the requirements of sports science.

In the sections "Conclusions and recommendations", the doctoral student Martin Yordanov, based on the analysis of research data, formulates conclusions and recommendations for future work, which cover the tasks of the research and have a significant practical contribution to the future work of the physical education and sports teacher. As a note here, I would advise the PhD student to reduce their number by combining some of the conclusions in a summary that would help the open-minded reader to extract in a concentrated form the effect of the PhD student's work. In my opinion, in the conclusions of the conducted research have no place in percentage and quantitative values, but only the general opinion of the doctoral student. Quantitative values ​​can be traced in the analysis made in chapter 3.

The work is illustrated very well, presenting the results in 43 figures and 32 tables, which helps to better and fully cover the results of the conducted research.

The presented abstract presents in a concentrated form the development of the doctoral student and meets the requirements for similar publications. My opinion is that it is not necessary to indicate the candidate's publications in the abstract, the contributors are the duty of the reviewers to highlight them and the literature used. It is they who increase the volume of the auto-reference to 55 pages and look more like filler for a volume / which the auto-reference does not need/.

No plagiarism was found during the check.

The procedures are followed strictly following the requirements of the Law on Higher Education, the Regulations for the Implementation of the Law on the Development of the Academic Staff in the Republic of Bulgaria and the Regulations for the Terms and Conditions for Acquiring Scientific Degrees and Holding Academic Positions at SU "St. Kliment Ohridski".

The remarks made so far do not detract from or detract from the high value of the PhD presented.

Everything stated up to here gives me reason to recommend to the members of the esteemed scientific jury to award the doctoral student Martin Yordanov the educational and scientific degree "Doctor" in professional direction 1.3. Teaching pedagogy (Methodology of training in physical education and sports).

Prepared the review:

/ Assoc.Prof. A. Hizhov, Ph.D./