

To the Chairman

of the Scientific Board

REVIEW

By Prof. Nadejda Georgieva Yordanova, D.P.Sc.

Shumen University 'Episkop Konstantin Preslavski'

On a dissertation thesis for granting the education and science degree of '**doctor**'

In the field of higher education 7. **Health care and sport**

professional section **7.6. Sport**

Doctoral program: Theory and methodology of sports science

Author: Verginia Svetoslavova Milashka

Topic: 'Modelling of the sports technique potential of female disc throw competitors in qualification aspect'

Director of studies: Assoc. Prof. Dr. Rumyana Karapetrova, NSA 'V. Levski'

I. GENERAL DESCRIPTION OF THE PRESENTED MATERIALS

I have been appointed as a member of the Scientific Board by order **№ 31-325/ 30.03.2019** of the Rector of the NSA 'V. Levski' for the procedure of defense of the dissertation thesis on the topic of: '**Modelling of the sports technique potential of female disc throw competitors in qualification aspect**' for granting the education and science degree of '**doctor**' in the field of higher education **7. Health Care and sport**, professional section **7.6 Sport**, Doctoral program Theory and methodology of sports science, Author of the dissertation thesis is a regular Doctoral Student at the Athletics Chair at the NSA 'V. Levski'

I The materials presented to me to review are as follows:

- ❖ Curriculum Vitae;
- ❖ Order to the right of defense;
- ❖ A written statement by a Chair Council with reference to a report of readiness to open a procedure and preliminary discussion on the dissertation thesis;
- ❖ Dissertation and author's review;

- ❖ A list of scientific publications referent to the topic of the dissertation and copies of them;
- ❖ Reference to the contribution points in the dissertation thesis.

The abovementioned documents are in compliance with the Regulations of Development of the Academic Staff at the NSA 'V. Levski'

The doctoral student has attached 4 publication.

II. BRIEF DATA ABOUT THE DOCTORAL STUDENT

Verginia Svetoslavova Milashka was a student at the NSA 'V. Levski', Sofia, in the period 2010-2014. She graduated in 2014 with qualifications of a track and field athletics coach. She continued her education at the same school of higher education on the Master's Program 'High performance Sport' which she completed in 2015. She won a contest for a regular doctoral student at the Athletics Chair. She was enrolled for a three year term of education on 01.03.2016.

As far as her personal competence is concerned, I would like to mention that Verginia Milashka has a good level of knowledge of English. She has very good computer skills. She also has very good communication, team work and organization skills.

Verginia Milashka has a rich competition career in track and field event. She is an active competitor in the field of throwing events.

UPTODATE SIGNIFICANCE OF THE DISSERTATION THESIS

The dissertation thesis of Verginia Svetoslavova Milashka is a science and practice research related to the track and field event of disc throw for women. It is an event in which the Republic of Bulgaria had her position among the world elite by conquering a great number of prize winning positions at World, Olympic and European competitions.

The significance of the dissertation work of Assist. Prof. Verginia Milashka is enhanced by the fact that over the past years this country has retreated far away from the positions it occupied in the recent past. It is necessary to analyze thoroughly the current state of the event as well as to find ways to improve preparation in the field of disc throwing.

In this context, I consider that the topic chosen and developed by Verginia Milashka has particularly great importance for the theory and practice in the field of sports training.

I. KNOWLEDGE ABOUT THE PROBLEM

Verginia Svetoslavova Milashka has large experience as an athletics competitor. She knows the matter in detail. Her competence is observed in the analyses she makes in Chapter 3 in the dissertation.

III. METHODS OF RESEARCH

In order to attain the objectives, to achieve the aim and to prove the hypothesis, the doctoral student applies a complex of general pedagogical and specific methods of research as follows:

- Method of obtaining retrospective information: a study on referent literature sources, historyography, analysis on personal diaries of elite Bulgarian female disc throwers;
- Research methods of technical devices: videometry, chronometry;
- Mathematical statistic methods for the procession of the results and analysis: variance, correlation, regression and Sigma methods.

The complex of forming and diagnostic methods is adequate to the aim of the study and to the system of research objectives set by the author.

IV. CHARACTERISTICS AND ASSESSMENT ON THE DISSERTATION THESIS

The dissertation thesis developed by Verginia Milashka follows traditional structure of works of this kind and complies with the generally accepted standards. It contains an introduction, four chapters, formulation of the issue, science methodological parameters of research (aim, objectives, methods and organization), analysis on results, conclusions and recommendations and a referent literature survey.

The thesis is developed in 127 pages. It is illustrated by 54 tables and 32 figures.

The introduction is brief, concise and leads into the chosen issue.

In Chapter 1 ‘Formulation of the issue’ the candidate Verginia Milashka makes a retrospective theoretical analysis (37 p.) on the issue outlining the characteristics of the disc throwing event: the disc throw technique, the factors conditioning the disc flight distance, the control and modelling of the disc thrower’s preparation, i.e. aspects and contents of the training process and modelling of the preparation.

158 literature sources are analyzed, **122** of which in Cyrillic, **31** in Latin alphabets and 5 from the Internet.

The referent literature survey is well structured. The development of the world record in disc throw for women is followed up (Table 1 in p. 8). Analysis on Bulgarian achievements in the disc throw for women is carried out bringing into focus the contribution of individual competitors and their prize winning positions. Fig. 1.c.12 graphically illustrates the dynamics in the development of the world and Bulgarian records in the disc throw for women. Milashka focuses on the best 50 records in the event throughout its history in the world. The best 50 performances in disc throw in this country are outlined. A good idea is the graphic comparison between the dynamics in the development of the best disc throw performance in the world and in Bulgaria for the period 1987-2017.

Section 1.2 views the sports technique characteristics of the disc throw event. The candidate presents systematically a structure chart of the disc throw technique (p. 22). She dwells upon each component which pre-conditions sports performance and focuses on the disc takeoff speed, takeoff angle and takeoff height, temporal characteristics of the basic stages of the throw. She points out to formulae for calculation of the disc flight distance and the height from which the disc is dropped.

Section 1.3 deals with the disc thrower's physical potential which is formed of their physical abilities and anthropometric indices. Milashka follows up and cites data by St. Stoykov about the speed-strength abilities and anthropometric indices of the best Bulgarian female disc throwers.

The control on the training process is an activity in which information is obtained and assessment is made on the real state of a certain object in view of its progress and improvement. We relate modelling with 'reproduction of something'. These two points in my opinion are rather sketchily in section 1.4 of the thesis. The candidate relies on them to develop the model characteristics of the physical and technique abilities of female disc throwers.

It is a positive point that the first chapter of the dissertation ends in a summary and well formulated research hypothesis.

The research hypothesis issues form the referent literature survey and the candidate's ambition is to rely on modelling the sports technique potential of disc throw female competitors to promote

the improvement on the preparation and further the performance of the competitors in the Republic of Bulgaria.

Chapter 2 ‘Aim, objectives, methods and organization of research’ contains the abovementioned parameters. The aim and the objectives are formulated clearly and precisely. I think that the objectives are rather fragmented and some may be combined (for example 1 and 2; 6 and 7). In order to attain them, a complex of traditional methods are applied such as theoretical logical analysis on the literature sources, structural observation, mathematic and statistic methods and videometry.

The **object and subject of study** are formulated properly.

Verginia Milashka performs her research program on the grounds of **data** about the first 3 of a total of 21 female disc throwers at the last 7 European championships and the first 3 out of a total of 21 Bulgarian disc throwers at the national state championships in the years of the European ones.

Physical potential is measured by 18 indices of 14 Bulgarian female disc throwers of exceptionally high sports qualifications. 24 indices are selected by the candidate to study technique which is displayed in Table 12 (p. 47).

Verginia Svetoslavova carries out also video filming as the object of research the time, amplitude and angle characteristics of 18 attempts performed by the disc throw state champion over the past 5 years.

Chapter 2 volume is of 10 pages (from p. 42 to p. 52). The candidate outlines her research program in a concise and consistent manner. The obtained result are processed statistically.

The organization of research proceeds in 6 stages described in page 52 of the dissertation.

Chapter 3 deals with ‘Analysis on result’. It is in 64 pages. The results from the collected material are presented in 54 table and are very well illustrated by 32 figures. The author outlay consistently in paragraph 3.1 the development of the disc throw event for women in the world and in this country after the last records. She studies the dynamics of sports performance in the aspect of age (paragraph 3.2) and they are displayed in Table 14 in p. 59. She determines that sports performance marks a steep rise after the age of 15 and performance stabilizes after the age of 23. For the assessment on sports performance Verginia Milashka works out standard norms on a five-grade scale using the Sigma methods for the purpose.

The physical potential of the female competitors of the world and Bulgarian elite she follows up on the basis of: *anthropometric signs; specific sports technique abilities; complex speed-strength abilities; lower limbs speed-strength abilities, etc.* The candidate selects a complex of purpose oriented specific exercises to outline the specific sports technique abilities. In the procession of the data she uses the regression method thus formulating regression equations for forecasting performances on the ground of the results of each exercise. Here, standard norms are also worked out.

The candidate applies the same model to the analysis on the female disc throwers' speed-strength abilities using the exercises of high start 30 m running, standing long jump, standing triple jump and standing five-fold jump. The standard norms are also formulated here on a five-grade scale.

The fourth paragraph of Chapter 3 deals with the disc thrower's technique potential. The candidate studies the basic time, amplitude and angle characteristics of disc throw quite accurately. This enables her to outline significant correlations between the individual indices and their changes in view of the sports performance.

It is quite logical that this chapter ends in a study on the abilities for realization of the disc thrower's sports technique abilities. The large factual material is analyzed profoundly and here we also observe the candidate's competence on the matter of discussion in the thesis.

The thesis of Verginia Svetoslavova Milashka is written in good style. In certain pages I have observed some deviation from the academic style but this can be easily corrected. As far as the graphic outlay is concerned, I would like to stress that it is very good. It is necessary the numbers of the tables to be corrected: Table 4 is followed by Table 6.

It is quite logical that the work ends in 'Conclusions for the sports theory and practice'. They are 8 and in my opinion issue from the research carried out. I think they should be separately presented in as IV.

- **CONTRIBUTIONS AND SIGNIFICANCE OF THE THESIS FOR SCIENCE AND PRACTICE**
- The development of the disc throw event in the Republic of Bulgaria and in the world is followed up.
- The theory and practice of the preparation of disc throw female competitors is enriched.

- The trends in the development of the performance in the disc throw event for women are followed up.
- As a result of all profound studies and analyses the candidate works out tables of model characteristics of the individual indices under study in order to achieve a certain result.

ASSESSMENT ON THE PUBLICATIONS REFERENT TO THE DISSERTATION THESIS

The author has pointed to 4 publications on the topic. She is the author of one of them and the 3 are in co-authorship with her director of studies and other colleagues.

V. PERSONAL INVOLVEMENT OF THE DOCTORAL STUDENT

The study is carried out by Verginia Svetoslavova Milashka personally and the scientific contributions are of her own merit.

VI. AUTHOR'S REVIEW

The author's review is in compliance with standards. Its structure and contents present briefly the text of the dissertation thesis.

VII. PERSONAL IMPRESSIONS

I have not met Verginia Milashka in person.

RECOMMENDATIONS FOR FURTHER USE OF THE DISSERTATION CONTRIBUTIONS AND RESULTS

I suggest that the work presented to me for scientific review should be published as a monography. This will enable a large number of other persons interested in the topic to get acquainted with the results described in it.

CONCLUSION

The work presented here is in compliance with all requirements of the Law for the development of the academic cadres in the Republic of Bulgaria (ЗЗПАЧРБ), the Regulations for its implementation and the Regulations of the NSA „V. Levski”.

All this has given me full grounds for a **positive** assessment and conviction to recommend to the members of the Scientific Board to grant the education and science degree ‘Doctor’. To Verginia Svetoslavova Milashka in the field of higher education 7. Health Care and Sport, professional section 7.6 Sport, doctoral program Theory and methodology. The dissertation thesis shows that the doctoral student Verginia Svetoslavova Milashka has a large number of science research skills and is able to carry out effective and impartial scientific studies.

25.04. 2019

Review:

/Prof. D.P.Sc. Nadejda Yordanova/