

OPINION

On a dissertation for granting the educational and scientific degree of ‘Doctor’

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

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Disc throw is one of the most attractive events in the Track and Field Athletics Competition Program of any rank and Bulgaria has rich traditions, great success and outstanding competitors in this event. In this respect, the topic of the dissertation thesis is particularly up-to-date bearing in mind the unenviable state of the Bulgarian female competitors in the group of throwing events on the international sports stage. The thesis, offered to me for opinion, makes a profound analysis on the current state of female disc throw competitors and presents specific suggestions for further improvement on sports performance in disc throwing for women.

The dissertation thesis of Verginia Milashka comprises 127 pages the referent literature included. It is structured according to the standard methods and consists of three basic chapters, conclusions and recommendations and referent literature. The literature sources are 158. 32 Figures and 54 tables illustrate the text.

The brief introduction leads into the analyses and the research consequently carried out.

Chapter I, Literature survey, is laid in 36 pages. My profound reading on this chapter forms my opinion that it is done in a thorough and professional manner.

The beginning of the literature survey deals with a brief retrospective analysis on the development of the disc throw event on world scale in view of the conditions for performance and entry in official competition programs. It also presents the development of the world records. On another hand, an analysis is carried out on the Bulgarian national record with an accent on the contribution of individual competitors to its development as well as to the achieved prize positions at major sports contests. A graphic comparison of the development of the world and national records is presented there. Besides, an analysis on the 50 best performances in the world is carried out, the presence of Bulgarian competitors included. The data about the 50 best performances of Bulgarian competitors are also shown. Here, another graphic chart may be added presenting visually the difference between the best world and the best Bulgarian performances.

The comparative analysis on the best achievements in the world and in Bulgaria, in each year separately, in the years following the world and national records, 1988 and 1987 respectively, also throw additional light on the state of disc throw. An interesting analysis is also carried out on the performances achieved by the first three competitors at European and National Competitions over the past 20 years.

Section 12 of the dissertation thesis is dedicated to the literature data about disc throw sports technique characteristics. It involves a detailed clarification of the disc throw technique, its structure and key points. The basic factors of sports performance are revealed with an accent on the mechanic factors: the disc takeoff speed, takeoff angle and takeoff height and the temporal characteristics of the basic stages of the throw. Formulae for calculations of the distance of disc flight are also presented here.

The disc throw's physical potential as a matter of discussion takes a basic position in the survey on referent literature in the dissertation thesis. The basic parameters under analysis are the physical abilities: strength, speed, speed capacities and speed-strength.

Chapter I.4. reveals the position of control and modelling as inseparable processes in competitors' training in athletics throwing events. It presents the most common sports pedagogical control exercises in disc throwers' preparation. The fundamental types and stages of control are also revealed.

The survey on literature ends in three brief conclusion reflecting the analyses made in Chapter 1.

The research hypothesis is well formulated and corresponds to the objectives to be attained.

Chapter II of the dissertation thesis is in 12 pages. The aim is formulated properly and reflects the topic of the thesis. Seven tasks are set to achieve the aim. The indices under study are presented precisely and the competitors under study are mentioned. Adequate methods research are used.

Chapter III of the dissertation thesis is in 64 pages and includes thorough analyses on the field preliminary outlined. Firstly, the dynamics of the best performances in Bulgaria and in the world is followed up after 1987 when the world and national records, which have not been improved so far, were set. On another hand, analysis is carried out on the three prize winning positions at European and National Championships. The data are presented in graphs and are analyzed properly.

The follow-up of sports performance dynamics in an age aspect draws yet another picture of the sports technique abilities of the female disc throwers. The trend of the changes in performance is outlined and the data are again presented in tables and graphic charts. The correlations between the competitors sports performance and age

are found. Assessment standards are worked out on the level of sports performance by a five-grade scale applying the Sigma method.

The research on the disc throw female competitors' physical potential is carried out in three directions. Firstly, the competitors' anthropometric indices, a major factor for the disc throw performance, are analyzed although no significant correlations between competitors' sports performance and their height and weight have been found.

The research on the physical potential is followed by an analysis on the female disc throw female competitors' specific sports technique abilities. The analysis involves exercises for improvement on the technique by throwing discs of various weight and this results logically in the detection of high correlations between each exercise and sports performance. Regression equations are formulated for forecasting sports performance in dependence on the result of each exercise as well as reverse regression models for calculating the necessary result from the control exercises in order to achieve a certain performance. Standard norms are also worked out by Sigma method for assessment on the result from the exercises under study.

The next section of the dissertation thesis carries out a profound analysis on the complex speed-strength abilities of the disc throw female competitors analyzing the results from the exercises of shotput forward and backward with two hands. High correlation between these exercises and sports performance is detected. Linear and reverse regression equations are also formulated for these both training and control exercises. Standard norms are developed by means of a five-grade assessment scale.

The speed-strength abilities of the disc throw female competitors are analyzed by means of control exercises including high start 30 m run, standing long jump, standing triple jump and five-fold jump. The analysis scheme is observed again and correlations with sports performance are identified, regression equations are formulated and standards assessment tables are worked out.

Section III.3.5. deals with a thorough analysis on the results from the control exercises back barbell squat, clean from lying position, snatch overhead and power clean turn. They reflect the strength abilities of the disc throw female competitors. The exercises are visually displayed in appropriate cinegrams.

The disc thrower's technique potential comprises the time, amplitude and angle characteristics of the disc throw execution and Section III.4. deals with this analysis. Significant correlations are detected between the separate indices under study and the individual changes in these indices in view of the sports performance. The analyzed values relate to a separate component in the technical execution of the competition exercise. The data are properly presented in tables and figures.

In order to achieve a complete form of the disc thrower's sports technique potential, the candidate studies the level of realization of the competitor's abilities in disc throwing. To accomplish this aim she takes into consideration the performances at European and national championships and the best personal records during the respective sports competition seasons as well as those of the medalists at these competitions.

As a logical completion of the rich research material, the candidate develops tables of the model characteristics of the separate indices under study for achieving a certain sports performance that may be implemented in the preparation of disc throw female competitors of various qualifications.

It is worth stressing on the fact that almost each section of the analysis on the separate aspects of the sports technique potential includes the research methods, the persons under study and the investigated parameters.

Seven conclusions are drawn at the end of the dissertation thesis reflecting the objectives set in the research. Here, a more detailed level of Conclusion 6 may have

been attained because the way it is formulated has a rather informative character about what has to be done and does not reflect the conclusions drawn from the analyses.

Summary

The thesis presents a complete and properly structured scientific work. The remarks and recommendations about certain changes and additions do not decrease its values, which is of high theoretical and practical significance.

All this gives me grounds to express my opinion to the honorable Scientific Board to grant the educational and science degree ‘Doctor’ to Verginia Svetoslavova Milashka.

Sofia
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Opinion by