

SCIENTIFIC REVIEW

on the dissertation thesis on the topic of 'Modelling of the Sports Technique Potential of Female Disc Throw Competitors in a Qualification Aspect' for granting the educational and scientific degree 'Doctor'

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Disk throw for women is the event in which Bulgarian female athletes have some of the most impressive successful performances: almost all but the Olympic title. That is the reason why learning about their experience and implementing it into practice enriches the knowledge about the event and is not only of national significance but also as contribution to the sports science and practice in this field.

Presented in 127 pages and illustrated by 54 tables and 32 figures the thesis is written in clear and adequate language and is structured in compliance with the standards of a scientific work of this kind.

The **introduction** points out to the motives for writing it, i.e. to contribute to finding a way out of the unenviable situation in which the event has been in this country over the past 2 – 3 decades.

The **validity of the matter** reflects the good theoretical preparation of the author as well as her empathy to the selected topic.

The knowledge presented in scientific and methodological literature has been studied referring to the following:

- Historical development of the event;
- Sports technique characteristics of the event as a whole;
- Physical potential of the female disc thrower;
- Control and modelling of female disc throwers' preparation;

This chapter presents a great impression with the personal attitude of the candidate on the matters under study.

The reader is also impressed by the final passages of Chapter 1 where three primary conclusions are outlined reflecting the gaps in the research on the matter as well as the route on which researchers' efforts in the field of this event should be directed and they are as follows:

- Scantier information about female disc throwers compared to that about male throwers;
- Availability of mostly sparse data about world elite female disc throwers;
- Dominance of Bulgarian science and methodology literature referent to the data about the preparation of the best female disc throwers.

The research hypothesis is specific and rich in content.

As far as Chapter 2 is concerned: **Aim, objectives, methods and organization** of research.

It is written in compliance with the standards of a science research of this kind.

The number of the studied indices of the physical and technique potential provide great opportunities for an insight into the core mechanism of the

event: technique and conditioning (physical, technique and mental). I would also add: other 18 indices of physical and 24 of technique potential are studied as well.

The physical potential indices study the disc thrower's physical preparation in a very large scope being quite specific at the same time.

The following have been researched:

- The anthropometric signs of the elite competitors of the world and at home;
- The specific sports technique abilities;
- The complex speed-strength abilities;
- The lower limbs speed-strength abilities.

The study on the technique abilities comprises the following:

- The throw time characteristics]
- The throw amplitude characteristics;
- The throw angle characteristics.

The study on the capacity for maximal realization of the world and Bulgarian elite also presents great interest.

Appropriate mathematics and statistics methods are used.

The analysis on the results is presented in 64 pages. Its content is in accordance to the set aim and objectives.

It begins with a research on the state of the event in this country and in the world after the Bulgarian and World records were set. It was carried out in an ingenious way: the performances at the first three at the European and

State National Championships. The primary conclusions outlining our great decline from the world standards are another evidence for the necessity to work on a research of this kind.

A study has been carried out on the dynamics in the performances of the world elite in the aspect of age: a visual handbook about the way dedicated disc throw experts should plan and realize the development of their trainees without forcing their preparation which is quite common in this country.

The study on the female disc thrower's physical potential is grounded on exceptionally valuable research data about the world and Bulgarian elite.

The conclusion about anthropometric signs is that there is no significant correlation between sports performance and the studied indices with the world elite (65-75 m).

The disc thrower's specific sports technique abilities, complex speed-strength abilities, lower limbs speed-strength abilities and strength abilities have been studied on the grounds of highly informative indices included in the disc throwers' preparation in all well-known outstanding schools.

The obtained results are of highly informative value and specificity and can be directly implemented into sports practice with the aim to achieve balanced development of technique and physical abilities. They are unique in a number of respects.

As far as technique potential is concerned, fundamental time, amplitude and angle characteristics of the throw have been studied (some of the

indices are followed up for the first time). Thus, its rhythm-pace structure, its inner and outer ballistics, is investigated.

The degree of sports technique realization of the European and Bulgarian elite has been studied and interesting conclusions have been made referring to the following: a higher degree of realization of the Bulgarian elite on the background of its lagging behind the European elite as far as sports technique is concerned.

Specific guidelines are outlined about the implementation of the obtained results into sports practice.

The **conclusions** are drawn from the carried out research. They reflect the results from the study in a synthesized way.

158 Referent **literature** sources are used divided as follows: 122 in Cyrillic, 31 in Latin alphabets and 4 from the Internet.

Good impression is created by the reference to the achievements in this field gained by of the representatives of Bulgarian sports science and mostly by members of the Athletics Chair at the NSA 'V. Levski'

SUMMARY

A complete scientific work is presented in compliance with the standards of a work of this kind.

The obtained results have high scientific as well as directly practical value. They can be implemented on a large scale: from the beginning practice of this event up to reaching world elite performance.

In deep conviction I suggest to the Honorable Scientific Board to grant the educational scientific degree of 'Doctor' in professional field 7.6 Sport to Virginia Svetoslavova Milashka.

Sofia, 23.04.2019

Review:

(Prof. Stefan Stoykov. D.Sc.)