

# ● REVIEW

of a dissertation work, submitted for the acquiring of the Doctor educational and academic degree at the Primary School Education Division of Sv. Kliment Ohridski Sofia University

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*TOPIC: Didactic Technology for Developing Coordination Skills of Primary School Age Students through Gymnastics*

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**Dissertation Supervisor:** Prof. Elena Dzhambazova - Spasunina, PhD

Primary school age is an optimal period for developing motor coordination. This is helped by the plasticity of the nervous system and the improvement of the functions of the receptors. Despite the fact that gymnastic exercises are artificial forms of movement, they remain the best means of improving the motor skills of students aged 9, as well as their motor coordination.

Everything related to the optimisation of the education for developing coordination skills of primary school age students with the means of gymnastics deserves approval and increased interest from researchers. This is also my point of view, from which I shall analyse and give my assessments of the ideas and results in the dissertation work on the topic of *Didactic Technology for Developing Coordination Skills of Primary School Age Students through Gymnastics*.

The dissertation work is formed in one book with a volume of 258 pages, of which 221 pages is main text, containing 39 main and 2 normative tables and 69 figures, 14 pages of references, as well as 37 pages of applications. Structurally, the work is properly constructed, it includes an introduction, three main chapters, conclusions and recommendations, contributions and references. *In terms of structure, volume and consistency of the exposition, the submitted dissertation work complies with the main requirement for such type of papers.*

In the introduction, the topicality of the problems of the dissertation research is clarified in a purposeful and substantiated manner.

For the writing of **Chapter One** which is 78 pages long, 199 sources are used, of which 150 sources in the Cyrillic script (of which 3 documentary sources), 37 in the Latin script and 12 websites.

In that part of the work, Nikolina Tankusheva shows us the theoretical basis of the problem. In the first subchapter, the key terms are consistently and systematically explained: technique, technology, technological process and didactic technology, as well as their interconnections with science. In the second subchapter, the author shows us in detail the motor skills of human beings. There is a comprehensive analysis of conditioning skills and we are shown all the motor skills of human beings. Coordination skills are also analysed, sensitive periods and the means and methods for their development are presented. Special attention is also given to the place of coordination skills in the studying of physical education and sport at school. In the third subchapter, we are shown in detail the anatomic-physiological and psychical features of primary school age students. The fourth subchapter is dedicated to the importance and place of gymnastic in the system of physical education and sport. The types of gymnastics and the means of gymnastics are clearly presented, as well as the classification of the means of general gymnastics. At the end of that chapter, there is an appropriate analysis of the physical education and sport curriculum for third grade.

In this portion of the work, the creative examination of the references for the researched problems is really impressive. The research on the state of the problem is conducted competently and in the required scientific style.

In **Chapter Two** Goal, Tasks and Methodology of the Sport-Pedagogical Study, the hypothesis, the goal and the resulting seven major tasks are presented with logical consistency on 34 pages, they are also formulated clearly and precisely and give a clear idea of the intentions of the doctoral candidate.

The author has described the subject, object and contingent of her study, while the applied research methods give an opportunity for objective analysis aimed at achieving the goal and tasks of the work. The organisation of the study, the sport-pedagogical control tests and the mathematical-statistical methods are described in detail, At the end of chapter two, the didactic technology for developing coordination skills of third grade students is presented in great detail.

Structurally, the development of chapter two is substantiated scientifically and fully satisfactory, while its contents contribute to the high value of the dissertation work.

The analysis of the results in *Chapter Three*, which has a length of 85 pages gives an opportunity to make generalisations which are important for the theory and practice. An enormous amount of scientific and analytical work has been done, its scale fully matches the requirements for a doctoral work.

The third main chapter consists of five subchapters, each of which is related to the solving of the respective problem of the research in the dissertation work.

In the first chapter, the results of the comparative study of the coordination skills of students aged 9-10, classified based on demographic indicators. The study encompasses 1073 children from 10 Bulgarian towns or villages - Sofia, Plovdiv, Burgas, Veliko Tarnovo, Targovishte, Smolyan, Svilengrad, Radomir, Kubrat and Smilyan. By using a single factor dispersion analysis, the hypothesis that coordination skills do not depend on the town or village where the third graders go to school has been tested. The analysis of the results shows that the number of people in the given town or village can be a differentiating factor for the appearance of the various motor skills, including coordination skills.

In the second subchapter, the average values and the variation of the studied indicators, characterising the coordination skills of students aged 9-10, are analysed and on this basis a proposal is made for developing of experimental methodology for developing those skills with the means of gymnastics.

In the third subchapter, the results of the sport-pedagogical experiment are presented, more specifically the average values and the variation of the physical development of the studied groups at the start and at the end of the experiment.

In the fourth subchapter, the doctoral candidate presents the factor structure of the physical development and the coordination skills of students aged 9-10.

On the grounds of the conducted analyses and generalisations in the four subchapters of chapter three, a normative base has been developed for the purpose of assessment of the physical development of the coordination skills of third grade students, it is presented in the fifth subchapter.

In the final portion of the dissertation work, conclusions are made and recommendations are formulated which correspond to and are based on the solving of the set research tasks and arise from the conducted analysis, giving an answer to the formulated scientific hypothesis.

From the expanded scientific investigation, the conducted research and analyses in the dissertation work allow me to point out the following main contributions to the practice:

1. The knowledge of scientific-methodological foundations and age related peculiarities in the development of coordination skills of students aged 9-10 has been expanded.
2. A study of the coordination skills of students aged 9-10 was conducted for the first time in Bulgaria by means of a test battery for the purpose of determining the level of this type of skills and the positive changes which have occurred.
3. Didactic technology for forming and developing coordination skills of primary school students aged 9-10 has been created and approved.
4. Normative tables for assessment of the state of the coordination skills, of boys and girls in the third grade respectively, have been developed, with the help of the sigma method.

The contributions of the dissertation work have both scientific and scientific-applied significance and contribute to expanding the knowledge in the field of developing coordination skills with the means of gymnastics.

The doctoral candidate has three publications which fully reflect the scientific research on the topic. The abstract complies with the requirements.

In **conclusion**, I would like to point out that Nikolina Tankusheva is a respected lecturer at Sv. Kliment Ohridski Sofia University. To my personal positive assessments of Assistant Professor Tankusheva as an academic, I would also like to add her professional and competitive performances as part of the Bulgarian artistic gymnastics national team in the not so distant past, as well as her coaching work, which continues to this day.

These positions allow the doctoral candidate to have not only detailed information and a comprehensive view on the general state artistic gymnastics in Bulgaria and worldwide but also on artistic gymnastics among adolescents, including the planning, managing and controlling of sport training and an opportunity for direct participation in the processes of organisation and management. All this has allowed the doctoral candidate to conduct such in-depth research.

The reviewed dissertation work is developed on a very good scientific level and has the necessary theoretical and practical value in the field of artistic gymnastics. The submitted dissertation work is complete.

The conducted in-depth analysis of the training for developing coordination skills of primary school age students with the means of gymnastics, the conducted experiments and the results achieved from it, which enhance the optimising of the education process of students aged 9-10 and the increasing of the professional competence of the sport-pedagogical staff working in the field of artistic gymnastics, as well as the topicality of the problem selected for the research, give me a reason to propose to the respected members of the scientific jury at Sv.

Kliment Ohridski Sofia University to confer the DOCTOR educational and academic degree to **Nikolina Milkova Tankusheva** in professional strand 1.3. Pedagogy of Teaching... (Methodology of Teaching Physical Education and Sport in Kindergarten and Primary School).

18 August 2019

Reviewer:

/Assoc. Prof. Georgi Ignatov, PhD/