OF SCIENTIFIC OUTPUT

on Chief Assist. MARINA NIKOLAEVA NEDKOVA, PhD

for participation in a competition for the academic position "Associate Professor", announced in the State Gazette No. 35 of 18.04.2023 from Sofia University "St. Kliment Ohridski" in professional field 1.3. Pedagogy of Education in... (Physical education and sport – non-traditional sports in the education system)

GROUP B - INDICATOR - 3

MONOGRAPHS, BOOKS

1. Nedkova, M. (2023) Non-traditional sports in the educational system and part of physical education and sport in high schools in Bulgaria. Monograph. "Avangard Prima" press 2023, 225 p., ISBN 978-619-239-859-0–(Reviewed)

The monograph is published in a volume of 225 pages and is illustrated with 23 tables, 70 photos and 35 figures. 123 published sources are included 90 of which are in Cyrillic, 7 are in Latin and 26 websites.

The monographic work is structured into 5 chapters in which the arrangement of the development follows the logic of the presentation of non-traditional sports in the educational system and particularly physical education and sport in high schools in the Republic of Bulgaria.

The links between the social importance of physical education and sport and the functionality of the educational system of high schools with the inclusion of non-traditional sports in physical education and sports /PhEdS/ programs for raising the health status of student youth are traced. All this is related to historical and factual research, with specifics for the overall development of non-traditional sports in our country referring to rugby, hockey, and cricket.

The monographic work aims to study and analyze the status and problems of the discipline "Physical Education and Sports" at the universities, giving a real idea of the state of modern student sports in Bulgaria and the place of nontraditional sports in it.

To achieve this ambitious goal, the author solved several main tasks.

- One of the main tasks of the monographic work is to make a modern and in-depth analysis of physical education and sports at the High schools in our country. The development and state of physical education, as well as the organization and problems in the learning process, are monitored in detail. Of interest is the analysis of the attitude and assessment of physical education and sport by students, lecturers, and specialists which has not been done on such a scale so far. This analysis provides a very accurate and up-to-date assessment of this process in the high school education system and confirms the fears of a sharp decline in this level in the last 20 years.
- Another main task of the monographic work is to track the results of the implementation of innovations in the learning process in high schools. For its implementation, the results of a study of the state of the physical capacity of students engaged in non-traditional sports in high schools in Bulgaria are presented. Of relevance are the data from the survey on the state of the physical capacity of students participating in physical education and sports classes in the country's high schools after nearly two years of online training.
- Another major task aimed at exploring and tracking the new moments in the sports and competition activities of students engaged in non-traditional sports in our country is also interestingly solved. Participation in competitions organized at European, national and student levels is traced in detail. This is done for the first time in the system of physical education and sport at high schools, and the implementation of this innovative task ends logically with a proposal for legislative changes related to the policy of high schools for the development of student sports.
- A relevant moment is the role of physical education as a mandatory component in the educational system, educating a harmoniously developed personality which solves such problems as upbringing and education, improving health and forming a healthy lifestyle, and preventing diseases and bad habits. The new non-traditional sports fill an emotional gap in the attitude towards physical education and sports activities in high schools. The

development of non-traditional sports typical of the European sports student system and the organization of sports and competitive activities at the student level in a new way helps to overcome our serious abandonment of the level of European student sport.

The **first chapter** of the monograph provides a thorough analysis of the state of physical education and sport in high schools in the Republic of Bulgaria. The development and state of physical education in high schools are examined as well as the organization and problems in the educational process of physical education from 1815 to the present day.

This chapter of the monograph describes the complex impact of physical exercise and the practice of sport on the whole human organism, its functions, and its systems. Physical activity and sport are analyzed not only as physical exertion but also as mental activity which causes processes of self-renewal and structural improvement in all vital organs and systems in the body of each person.

Chapter one presents the studies of several authors, as specialists formulate the main functional tasks of PhEdS in high schools as educational, healthprotecting, social, cultural, and restorative (recreational).

In the last part of the first chapter of the paper, the results of an independent up-to-date study on the attitude of students toward physical education and sport and their assessment of the level, novelties, and problems of the learning process are presented – 584 students from three universities, including Sofia University "St. Kliment Ohridski", Medical University (Sofia) and Trakia University (Stara Zagora) were interviewed. The results of an independent up-to-date study on the attitude and assessment of physical education and sport by lecturers and specialists, leading classes in physical education and sport at 14 universities in Bulgaria are also presented. The first chapter concludes with a summary of the problem under study.

The **second chapter** of the monographic work presents non-traditional sports as part of the system of physical education and sports in higher schools. It is essentially close to the classical historiography of world-famous sports but non-traditional for Bulgaria - cricket, rugby, and field hockey. Objective analysis and determination of traditional and non-traditional sports have been carried out according to generally accepted world criteria as well as their financial support for state structures in our country.

The **third chapter** presents the results of the implementation of innovations in the learning process, the impact effect of the implementation and practice of non-traditional sports in the PhEdS classes in high schools, and the nature and rules of cricket, rugby, and field hockey. The expansion of the content in the PhEdS learning process by including and promoting "Non-traditional sports" is defined as an innovative approach. This contributes to the higher motivation of the student youth to practice sports and physical activity, not only in the regulated time frame but also in leisure.

In this part of the monograph the following results are presented:

- From independent study within two academic years from 2021 to 2023 on the attitude of students towards the PhEdS and the practice of non-traditional sports at high schools in Bulgaria.
- For the state of the physical capacity of students participating in non-traditional sports classes at high schools in Bulgaria.
- about the state of the physical capacity of students participating in the PhEdS classes at the country's high schools after nearly two years of online training.

The **fourth chapter** examines the world standards of student sport (FISU and EUSA) and the established in our country competitive system and policies for the development of university sports (National University Championship, University Sports Association "Academic"), An analysis and comparison of the state of student sport on a global and national scale, the state of competitive activity in the field of non-traditional sports are made. Rugby 7 and field hockey in competitions organized by the World Federation for University Sport – FISU and the European University Sports Association – EUSA, as well as the National University Championships organized by the University Sports Association "Academic".

The level of student sports and competitive activity is analyzed, and innovative approaches and measures are proposed to overcome the abandonment of our student sports on a global and European scale.

The **fifth chapter** of the paper examines the need for new legislative changes related to the policy of high schools for the development of student sport.

Emphasis is placed on several key points for change and proposals:

compliance with the High school education law regarding the minimum workload of compulsory PhEdS activities in high schools.

- ➤ The workload of the compulsory PhEdS activities at the high schools should be the main criterion of the National Evaluation and Accreditation Agency when accrediting high schools in the Educational and Qualification "Bachelor" and "Master" Degrees.
- ➤ Renovation and modernization of the organizational and management structure of student sports in Bulgaria.
- Adaptation to work with students in a pandemic environment and online learning.

The monographic work also raises many new questions that are a reason for discussions and analysis on one hand of the state and importance of physical education and sports in high schools, and on the other hand, the role and importance of non-traditional sports such as rugby, hockey, and cricket in the educational system as part of physical education and sports.

The author is convinced that this new approach will help optimize the training process in physical education at high schools and the management of student sport, as well as its synchronization with the requirements of FISU and EUSA.

Group D - Indicator 5

PUBLISHED BOOK BASED ON PROTECTED DISSERTATION WORK FOR AWARDING THE EDUCATIONAL AND SCIENTIFIC DEGREE "DOCTOR"

2. Nedkova, M. 2016 Innovations in the educational process in physical education and sports in high schools in the Republic of Bulgaria, "Avangard prima" press, 122 p., ISBN 978-619-160-600-9–(Reviewed)

Physical education, in the continuous system of education, is called upon to ensure unity and integrity in the development of the uniqueness of the physical and psychological organization of mankind, of the intellectual and physical potential that determines the originality of everyone. Physical education, as a specific activity of students, ensures their socio-cultural status and autonomy in the system of external relations and relations with society, the formation of a personally significant system of world views and value orientation.

The radical changes in the social and political life of the country had an impact on the attitude of students toward the content of the educational process – preferring special sports training, and a desire to engage in sports and competitive activities. Preferences for individual sports have changed, with increased interest in sports which are a product of countries with developed economies and established education systems. Democratization brought to the fore the freedom of choice of students to participate in learning activities according to their individual wishes and interest.

All these consequences of the rapid democratization of society and the education system necessitate the search for more effective means and methods to increase the effectiveness of physical education activities at high schools. These searches can be answered by improving the physical education process. Improvement should be understood in the establishment of the current state of physical education, the formation of conclusions – positive or negative about its condition, and the discovery of new opportunities for the application of more effective methods of work in the field of physical education to create optimal conditions for mental activity and physical exertion of students.

ARTICLES AND REPORTS PUBLISHED IN SCIENTIFIC PUBLICATIONS, REFERRED TO AND INDEXED IN WORLD-FAMOUS DATABASES WITH SCIENTIFIC INFORMATION

Group D - Indicator 6

3. Peeva, D., Nedkova, M., Gocheva, N., (2021) Healing physical education as a means to overcome childhood hypo dynamics under lockdown conditions. *In: Trakia Journal of Sciences*, ISSN (print) 1312-1723, ISSN (online): 1313-3551, p.485-487

The article examines the possibility to find ways to maintain physical capacity at home through flexibility under the conditions of limited activity of children.

The study was done not only to prove this possibility but also to report the specific qualities of the family environment as a constant in the upbringing of children.

ARTICLES AND REPORTS PUBLISHED IN NON-REFERENCE EDITIONS WITH SCIENTIFIC REVIEW OR PUBLISHED IN EDITED COLLECTIVE VOLUMES

Group D - Indicator 7

4. Nedkova, M., Yaneva, A. (2012) Zumba - innovation in physical education and sports in high schools", IV International Scientific Conference - "Modern trends in physical education and sports", SU "St. Kliment Ohridski", ISSN 1314-2275, Department of Sports, issue 4/2012, p.94-98, Sofia.

The article describes research held at Sofia University "St. Kliment Ohridski" for the integration of a new type of fitness (Zumba Fitness) in the fitness and physical education program. Further research was held on how Zumba appeared and developed worldwide and in Bulgaria. The publication represents the methodology of basic education of Zumba Fitness with the main target of achieving better physical health and capability conditions for students.

 Peeva, D., Ivanov, Iv., Nedkova, M. (2012) Developing the flexibility of the students of the University of Transport "Todor Kableshkov" after Archery Classes. vol. "Sport and Science", issue 3, p. 300, 2012, Sofia, ISSN 1310-3393.

The report presents data after analyzing the development of active flexibility in archery students. The study included 28 students, and the duration of the experiment was two academic years.

6. Peeva, D., Ivanov, Iv., Nedkova, M. (2012) Dynamics of the specific power qualities of the students at the University of Transport "Todor Kableshkov" after archery. *vol.* "Sport and Science", issue 3, p. 375, 2012, Sofia, ISSN 1310-3393.

The report presents data on the development of the physical capacity of students from the University of Transport "Todor Kableshkov" after archery. A new and unconventional sport for the programs of higher education institutions. The duration of the experiment is two school years.

7. Peeva, D., Nedkova, M., Mladenov, M. (2012) Questionnaire survey among students from the University of Transport "Todor Kableshkov" and students from 31 "Ivan Vazov" - Sofia on the occasion of conducting a tourism module. International Scientific Conference "Current Problems of Physical Culture"-2010, NSA "V. Levski", Department of Theory of Physical Education, Extraordinary Issue 3/2012, p.295, Sofia.

The report presents data from a study that clarifies the attitude of pupils and students towards tourism as part of the system of physical education and sports. The study involved 576 students from the University of Transport "Todor Kableshkov" and 324 students from 31 "Ivan Vazov".

8. Nedkova, M., Yaneva, A., Peeva, D. (2013) Historical Development and State of Physical Education and Sports in Universities and Colleges in the USA. 5th International Scientific Conference – "Modern Trends of Physical Education and Sports", Sofia University "St. Kliment Ohridski". Kliment Ohridski", ISSN 1314-2275 Department of Sport, Issue 5, p.144, Sofia.

The report provides information on the development and status of physical education and sports in universities and colleges in the United States. Conclusions are drawn based on which recommendations to Bulgarian universities.

9. Nedkova, M., Peeva, D., Nikolova, E., (2013) Zumba – nontraditional approach in physical education at Sofia University "St. Kliment Ohridski", 16th Symposium on sport and physical education of youth, Activities in physical education and sport, International Journal of Scientific and Professional Issues in Physical Education and Sport. APES, Vol. 3, 2/2013, pp.207, Ohrid, Republic of Macedonia, ISSN 1857-7687.

The article describes research held at Sofia University "St. Kliment Ohridski" for the integration of a new type of fitness (Zumba Fitness) in the fitness and physical education program. Further research was held on how Zumba appeared and developed around the world and in Bulgaria. It describes what Zumba is and the results of the experiment with university students.

10.**Nedkova, M.**, Nikolova, E., (2013) **Methodology for basic education of Zumba fitness for university students**, 16th Symposium on sport and physical education of youth, Activities in physical education and Sport, International Journal of Scientific and Professional Issues in Physical Education and Sport. APES, Vol. 3, 2/2013, pp.248, Ohrid, Republic of Macedonia, ISSN 1857-7687.

The publication represents the methodology of basic education of Zumba Fitness as a new sport appearing at Sofia University "St. Kliment Ohridski" with the main target of achieving better physical health and capability condition of students.

11. Peeva, D., Nedkova, M., (2013) Physical education and sport as forming factor for children growth in preschool age, 16th Symposium on sport and physical education of youth, Activities in physical education and sport, International Journal of Scientific and Professional Issues in Physical Education and Sport. APES, Vol. 3, 1/2013, pp.26, Ohrid, Republic of Macedonia, ISSN 1857-7687.

This research aims to examine the levels of physical skills in children at preschool age and their preparation for elementary school. The targets of the research are 58 children, 37 boys and 21 girls both aged 6 from the 34th kindergarten in the city of Sofia. The participants in the research are divided into two groups – control and experimental, the last consists of children who participate in higher physical outclass activities.

12.Peeva, D., Nedkova, M., (2014) Longitudinal research of body mass index of newly accepted female students at CT "Todor Kableshkov, 17th Symposium on sport and physical education of youth, Activities in physical education and sport, International Journal of Scientific and Professional Issues in Physical Education and Sport. APES, Vol. 4, 1/2014, pp.27, Ohrid, Republic of Macedonia, ISSN 1857-7687.

The article describes a thorough research of the weight-height ratio of newly accepted female students which is known as body mass index and is used as a dynamical indicator of the physical development of the individual. The results were processed statistically; conclusions related not only to students' physical conditions but also to teachers' work have been made.

13. Nedkova, M., (2014) Actual conditions and problems in physical education and sports subject in universities in the Republic of Bulgaria. *In: Contemporary trends in physical education and sports*. Publishing house: University Publishing House "St. Cl. Ohridski", 2014, pp. 120-126, ISSN: 1314-2275

Our research is aimed at data presentation of Physical Education and Sports conditions in universities. The information supplied is for the academic structures in universities, teachers' staff characteristics and study year attendance, and the forms of lesson holdings. The approved general lessons hours according to different university study plans and several lessons.

14. Nedkova, M. (2014) Condition and problems research in sports activities at universities in the Republic of Bulgaria. *In Contemporary physical education and sports trends*. Publishing house: University Publishing House "St. Kl. Ohridski ", 2014, pp. 127-133, ISSN: 1314-2275

Our research is aimed at data presentation of Physical Education and Sports conditions in universities. The supplied information is about sports facilities and objects owned by universities, the need for repairs and modernization of the facilities and the need for new technical material equipment. Financial insurance of the education process and information for university-registered sports clubs.

15.Nedkova, M. (2014) Regulatory framework for evaluation of physical capabilities of university students in the Republic of Bulgaria. Scientific conference with international participation "Physical education and sports", ISSN 1310-3393, Southwest University "Neofit Rilski", Sport and Science, special issue 6/2014, pp. 82-86, Blagoevgrad.

This publication presents up-to-date information on the state of physical fitness of students from higher education institutions in Bulgaria using a new normative basis for assessment. It can serve to optimize the learning assessment and to obtain information about the level of physical fitness of the students.

16.Nedkova, M., (2015) Development of physical education and sport as a discipline in high schools in Bulgaria. Jubilee International scientific-practical conference - "Theory and practice of the psychological-pedagogical training of the specialist at the university", Association of professors from Slavic countries, first book/ volume two/ 2015, p.173-175, Kiten, ISBN: 978-954-490-476-0.

The following article represents the creation and implementation of the study discipline "Physical education and sports" in the universities' study plans. There is also a short and summarizing historical retrospection of the development from the year 1815 until now.

17. Nedkova, M. (2015) Current state of the physical capacity of students from high schools in Bulgaria. Normative basis for evaluation, Yearbook of the Sports Department of SU "St. Kliment Ohridski", Volume 87, 2015, ISSN 1313-7417, pp. 417-430, Sofia.

Our research presents information about the legal framework we created for the physical fitness of students from high schools in the Republic of Bulgaria. The number of students participating in the research is 386 persons - 239 women and 147 men, engaged in 13 different types of sports in physical education and sports classes.

Over two years, our work with this contingent enabled us to develop a normative framework with a broadly representative scope of students with different backgrounds. Assessment standards for all tests have been created separately for women and men, enabling an up-to-date assessment and comparative analysis of physical performance in the future.

18. Nedkova, M., (2015) The state of physical development of students practicing various sports disciplines in universities in the Republic of Bulgaria, VII International Scientific Conference - "Modern trends in physical education and sports", SU "St. Kliment Ohridski", ISSN 1314-2275 Department of Sports, issue 7/2015, p.113-118, Sofia.

Actual data on students' physical capabilities condition in the Republic of Bulgaria are presented in this article. The latest national research was made in the 1980s. We think that it is not appropriate to make a comparative analysis because of the long 33-year period and the essential changes in social economic development in the country. The main purpose of this research is to use the results of the findings of the experiment as the database for future comparison in the population 's social transition stage.

Velkov, P., Kolev, N., Nedkova, M., (2015) Study of the global popularity of the sports included in the Football and Tennis Department, "X International Scientific Conference of the CFT" 2015, NSA "V. Levski", Sport and Science, extraordinary issue 6/2015, p. 144, Sophia.

The survey is aimed at informing about the popularity of sports covering the Department of Football and Tennis at the National Sports Academy "V. Levski".

 Nedkova, M., Kasabie, E., (2015) Study of the Effect of Diet on Rugby Seven, "X International Scientific Conference of the Department of Football and Tennis", NSA "V. Levski", ISSN 1310-3393, Sport and Science, Extraordinary Issue 6/2015, p. 248-252, Sofia.

In the following article, we share our experience by applying of innovative approach towards compiling the specifics and character of physical loads, food diet optimization and relaxation of female Rugby 7 players in our country. Our preliminary expectations are that optimal food diet and physical recovery will bring higher sports results in teams at local and international sports events in the sporting calendar. Diet and recovery will optimize the body weight and muscle mass structure of our elite players.

3. Yaneva, A., Nedkova, M. (2015) How physical education and mental Performance of students and their motivation to participate in sports classes influence, Jubilee International Scientific and Practical Conference - "Theory and Practice of Psychological and Pedagogical Training of the Specialist at the University. Association of Professors from Slavic Countries, first book/volume one / 2015, p. 344, Kiten, ISBN: 978-954-490-476-0.

This article presents the influence of physical education and sports on the mental performance of students in high schools. The relationship between physical and mental activity is considered, as well as the motivation for students' participation in classes in a particular sport.

4. Trenev, L., Nedkova, M., (2015) Analysis of game indicators when batting in baseball, "X International Scientific Conference of the Department of Football and Tennis "-2015, NSA "V. Levski", Sport and science, special issue 6/2015, page 233, Sofia.

The article presents the analysis of the main game indicators in the batting of the competitors from "Bisonok" and "Lions-NSA", registered during their participation in the National Championship in 2014.

5. Nedkova, M. (2016) Physical development of students practising Zumba-fitness at Sofia University "St. Kliment Ohridski", magazine Sport and Science, ISSN 1310-3393, issue 1, Sofia, pp. 153-159.

The following article presents information about the actual condition of physical development and the capabilities of students practicing Zumba fitness. The research was held at Sofia University "St. Kliment Ohridski" at the beginning and the end of the educational year.

6. Nedkova, M. (2016) Organization of the modern educational process in physical education and sports in universities. Magazine Sport and Science, ISSN 1310-3393 2016, issue 1, pp. 149-154, Sofia.

The following article represents the modern study process organization of physical education and sports classes in the Republic of Bulgaria universities. The main actual problems are highlighted. Results from experiments of many authors on the same subject are analyzed and few proposals were made to develop this organization.

7. Nedkova, M., Mitreva, B., Peeva, D. (2016) Physical condition and development of students practising basketball at Sofia University "St. Kliment Ohridski" and the University of Transport "Todor Kableshkov". VIII International Scientific Conference - Modern Trends in Physical Education and Sport, ISSN 1314-2275, Department of Sport, 2016, p. 76-80, Sofia.

The following article presents information about the actual condition of physical development and capabilities of students practicing basketball during regular classes in Physical Education and Sports. The research was held at Sofia University "St. Kliment Ohridski" and the University of Transport "Todor Kableshkov" at the beginning and the end of the educational year.

8. Nedkova, M., Peeva, D., Slavcheva, P. (2018) Physical condition and development of students practicing fitness at the University of Transport "Todor Kableshkov" and Medical College "Y. Filaretova"-Sofia". X International Scientific Conference – "Modern Trends in Physical Education and Sports", Sofia University "St. Kliment Ohridski", ISSN 1314-2275, Department of Sport, 2018, p. 144-149, Sofia.

The following article presents information about the actual condition of physical development and capabilities of students practicing fitness during regular classes in Physical Education and Sports. The research was held at the University of Transport "Todor Kableshkov" and Medical College "Y. Filaretova"- Sofia at the beginning and the end of the educational year.

9. **Nedkova**, M., Peeva, D. (2018) Physical condition and development of students practicing volleyball at the University of Transport "Todor Kableshkov", X International Scientific Conference – "Modern Trends in Physical Education and Sport", Sofia University "St. Kliment Ohridski", ISSN 1314-2275, Department of Sport, 2018, p. 139-143, Sofia.

The following article presents information about the actual condition of physical development and capabilities of students practicing volleyball during regular classes in Physical Education and Sport. The research was held at the University of Transport "Todor Kableshkov" at the beginning and the end of the educational year.

10. Nedkova, M., Peeva, D., (2019) Physical condition and development of students practicing cricket at the University of Transport "Todor Kableshkov", XI International Conference "Modern Trends of Physical Education and Sports", Sofia University "St. Kliment Ohridski", ISSN 1314-2275, Department of Sport, 2017, p. 80-83, Sofia.

The following article presents information about the actual condition of physical development and capabilities of students practicing cricket during regular classes in Physical Education and Sports. The research was held at the University of Transport "Todor Kableshkov" at the beginning and the end of the educational year.

11. Nedkova, M., Peeva, D., Gocheva, N. (2019) Physical condition and development of students practicing rugby at the University of Transport "Todor Kableshkov" and Trakia University - St. Zagora. XI International Conference "Modern Trends in Physical Education and Sports", Sofia University "St. Kliment Ohridski", ISSN 1314-2275, Department of Sport, 2019, p. 319-324, Sofia.

The following article presents information about the actual condition of physical development and capabilities of students practicing cricket during regular classes in Physical Education and Sports. The research was held at the University of Transport "Todor Kableshkov" and Trakia University in Stara Zagora at the beginning and the end of the educational year.

12. **Nedkova**, **M.**, Peeva, D., Gocheva, N, (2019) Physical condition and development of students practicing field hockey at the University of Transport "Todor Kableshkov" and Trakia University – St. Zagora. IV International Scientific Conference of UNWE on Modern Trends, Problems and Innovations in Physical Education and Sports in the High Schools, Enrollment Journal. Sport and Science, ISSN 1310-3393, p. 190-195, Sofia.

The article presents information about the actual condition of physical development and capabilities of students practicing field hockey during regular classes in Physical Education and Sports. The research was held at the University of Transport "Todor Kableshkov" and Trakia University in Stara Zagora at the beginning and the end of the educational year.

13. Nedkova, M., Peeva, D., (2019) Physical condition and development of students practicing tennis at the University of Transport "Todor Kableshkov", International Scientific Conference - South-West University "Neofit Rilski", Blagoevgrad magazine. Sport and Science, ISSN 1310-3393, p. 190-195, extraordinary issue /2019, Sofia

The article presents information about the state of physical development and abilities of students practicing tennis during regular classes in Physical Education and Sports. The survey was conducted at the University of Transport "Todor Kableshkov" at the beginning and end of the school year.