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UNIVERSITY SPORTS: INNOVATIONS, CHALLENGES AND PROSPECTS

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Abstract: *The topic of university sports in the 21st century is extremely relevant. It covers various aspects such as technological innovations, challenges faced by universities and development prospects.*

In the first quarter of the 21st century, university sports are undergoing significant and substantial transformations related to technological innovations, social changes and a new attitude towards physical activity. The paper briefly presents leading regulatory documents – national and European – that control the dynamics in sports, the main moments in history of the idea of university sports and new aspects of its development. The emphasis is put on the innovative discoveries, which are applicable to university-level sports and refer not only to technology, but also to socialization of students. Innovations in student sports cover various aspects: from technological solutions and training methods to organizational changes and new models to engage students. The leading challenges faced in development of university sports under its current and future conditions are revealed. The interaction and cooperation of sports sciences, technologies and healthcare are indicated and the successful development of effective training programs and a better understanding of relationship between physical activity and academic success are discussed. The interdisciplinary connection of sports sciences and other subjects such as psychology, biomechanics and nutrition is considered to achieve a more holistic approach to training and development of athletes. Finally, a conclusion is made regarding the future, sustainable development, international cooperation and digitalization, which will play an increasingly important role in university sports.

Key words: *university sports, technologies, innovations, digitalization, greening.*

1. INTRODUCTION

The game as a phenomenon appeared before the emergence of human civilization. There are many opinions about the essence and meaning of game in animal world, which are extrapolated to human society. The answers are sought in relation to an excess of vital forces, the construction of role models, the minimization of everyday problems, preparation for the requirements of future career, a challenge for and to power. Carried over historical eras, game became an inseparable part of human nature and individuality. In a cultural sense, the concepts Homo sapiens, Homo faber and Homo ludens are mutually conditioned and complementary sides of human nature (Huizinga, 1930).

The sports paradigm historically overlaps with game situations in the concept broad sense. It is defined by physical survival, preparation for extraterritorial and intra-territorial clashes, opportunities for power, and gradually separated as an independent and purposeful activity in ancient societies. Sports became a phenomenon not less complex and complicated, which constantly separated from the game as a natural state of organisms. Athletes in Ancient Age had the position of heroes, who turned the game into a goal and an example. Later, the games or more precisely sports, was excluded from public events as an example of pagan cult.

The interest in games was kept throughout subsequent socio-economic formations but a significant development and appearance of modern understanding of sports, different from everyday games, occurred in England only at the end of 18th century and even later with the development of idea of new Olympic Games. The terminology related to games-sports conclusively proved the connection between these two notions.

Games and their focus – sports – found natural environment to develop in the university communities and quickly became a major factor in optimizing the expected results of future specialists.

The essential role of physical education and sports within the institutions of higher education was proven in a lot of studies devoted to mutual relationship between physical fitness and mental capabilities. There are also a number of studies reflecting students' attitudes towards sports, the influence of physical activity on their psyche, their situational and personal anxiety, their strategies of coping with stress, etc. [14]. According to a study conducted among students, the practice of tourism and sports orienteering and climbing contributes to improving not only their physical fitness, but also their emotional state [16]. Sports are the only barrier against deterioration of students' health, a decrease in physical abilities, increased morbidity and a number of other negative aspects of student life. Its significance is determined by the unique nature of sports activities, which in addition to the physical aspect, also have an important emotional impact, which often persists throughout the entire life cycle.

2. UNIVERSITY SPORTS IN BULGARIA

On 27 November 1923 one of the auditoriums of Free University of Political and Economic Sciences (nowadays known as UNWE), founded three years earlier, was used to hold a meeting for establishment of a new organization. A group of about 40 students founded the first student sports club in Bulgaria, thus setting the beginning of organized student sports in the country.

More than 100 years later, in the 21st century, university sports face various problems of objective and subjective nature and develop in a complex situation as a result of political manoeuvres, tension in the educational system, neglect of sports and all other events with a negative value towards sports [6]. However, Physical education is a key component of educational system, which supports the overall development of students through physical activity, socialization and acquisition of values such as teamwork, self-esteem and mutual assistance. Proper adaptation to the modern lifestyle and professional promotion of students require a certain level of physical fitness and good motor culture [5]. In recent decades, sports at institutions of higher education have changed to meet the requirements of dynamic social environment, technological progress, and educational system. For the past 20 years most universities have introduced optional sports as an opportunity not only to provide the mandatory subject of Physical education and sports, but also to offer attractive sports to students that can be practiced with interest [2, 12]. At the same time students' choice is facilitated by using various electronic platforms where young people can register for a sport according their preferences [12, 13].

3. LEGAL REGULATION AND ORGANIZATIONS OF UNIVERSITY SPORTS

Each activity in society emerges and develops, controlled and sanctioned with specific regulation documents such as laws, regulations, by-laws, rules and regulations, decrees. The regulation framework related to university sports in Bulgaria following fundamental documents such as the European Sports Charter [10], etc., which have established the right of doing sports. According to the Law on Physical Education and Sports, the government promotes the development of physical education and sports by: creating conditions and supporting sports for all, children's and youth sports, school sports, university sports as well as the overall public benefit sports activity to improve the health of Bulgarian nation (www.lex.bg). The Act also has provided the minimum number of classes to practice sports at the institutions of higher education [9]. The financial resources provided for practicing sports by students in Bulgaria are determined by Decree 46 of the Council of Ministers, which determines the minimum differentiated amounts of funds for physical activity, physical education, sports and tourism activities. Strategies for development of physical education and sports including university sports are periodically adopted outlining the need to increase the labour-and-social and health-and-educational role of sports in training future graduates [10].

University sports have deep roots in Bulgarian sports history. Bulgaria was one of the countries, which founded the International University Sports Federation (FISU) in 1949. The Association of University Sports "Academic" (AUS) is the only multi-sport federation managing interuniversity championships in Bulgaria and a member of the International University Sports Federation (FISU) and the European University Sports Association (EUSA).

After about a 20-year hiatus, the AUS helped by the management authorities of institutions of higher education in Bulgaria, the federations, the Youth and Sports Ministry and the Ministry of Education and Science, Science and Technology, organized the National Student Universiade 2014 in Sofia. This was followed by organization of nine more universiades. AUS "Academic" has established a tradition to organize not only national universiades, but also holding annual Winter University Games and Summer University Sports Games. Thus university sports have been gaining more and more popularity, attracting more and more student-athletes to participate in competitions.

Over 5000 student athletes actively participate in national university championships every year, in Winter and Summer University Games and in the national universiades [6].

4. INNOVATIONS IN STUDENT SPORTS

Innovations cover various aspects: from technological solutions and training methods to organizational changes and new models of student engagement.

Here are the key trends towards innovation:

- digitalization and technological progress – new technologies have been changing the way students train and participate in sports events; the use of mobile devices, virtual reality (VR) and data analysis provides new opportunities for personalized training when students participate in representative teams of the respective university;
- online platforms and e-sports – the online sports platforms and interest in e-sports are changing the boundaries of traditional university sports;
- gaming and motivation – the inclusion of elements of game situations in regulations of student sports classes such as awards, challenges, points used to motivate students in their participation, which directly corresponds to the essence of game understanding;
- optimization of programs – activation of new sports, non-traditional for university conditions, such as rugby, cricket, field hockey, dodgeball, lacrosse; these are sports that in addition to developing individual features of each student play an important role in socialization and development of participants in the team;
- integration of a healthy lifestyle through monitoring on diet, daily routine distribution etc.;
- multidisciplinary – use of methods from other scientific fields such as psychology, philosophy, sociology;
- development of new methodological approaches to enhance the social functions of physical education as a social sphere to apply sports among students [15].

The complex of innovative changes guarantees the development of sports activities within the framework of university sports on a new, higher scientific level.

5. CHALLENGES AND PROSPECTS OF UNIVERSITY SPORTS

The challenges in development of university sports can be determined in two ways – subjective and objective, some of the latter being associated with unjustified neglect of student sports activities by state and non-governmental organizations.

- lack of motivation among the student community – inherited from secondary schools, lack of orientation in desires, the sports offered do not satisfy emotional aspirations or physical capabilities, frequent neglect in determining representative teams at universities and last but not least ambiguity in regard to certification or assessment as well as the timetable of classes; a significant problem is the cumbersome system for informing students about both classes and the achieved results.
- the qualification of teachers is a dominant factor in development of sports in higher education related not so much to the training methodology but to possible traumatology in case of incorrectly set tasks, not in line with the physical capabilities of students, i.e. the teacher focuses in himself not only coaching, but also kinesitherapy and motivation role.
- of the objective challenges for development of student sports, available facilities occupy the main place – they are below a satisfactory level in many institutions of higher education and that

hiders the teacher's work and the motivation of students; the fitness hall or tourist route is insufficient to fulfil the goal and tasks of sports;

- financial support is the framework where the activities of sports teachers develop; the only option is government subsidies, which are severely limited in the institutions of higher education with few students; some of the sports practiced require more serious capital expenditures that are often at the expense of students' personal financial resources;

- a special place in challenges to sports in the institutions of higher education takes low awareness and neglect of sports classes; it is a widespread opinion that PE classes are of insignificant importance in training future specialists in all fields; the intertwined connection between physical condition and mental potential is still not realized.

The presented challenges or, in other words, problems faced by sports in higher education institutions has been the subject of research and analysis by various authors whose opinions are rarely listened to by the bodies authorized for a possible change in the status quo.

The prospects for student sports are formatted by problems – they represent variable responses to challenges and are grouped by essence.

The motivational sphere of each individual is an extremely complex and delicate matter, which should be carefully and purposefully worked with. It reveals the desire to affirm one's own "I" to the person and society as well as the objective self-assessment. The impact is complex: administratively – through relevant bonuses for participation in individual or team competitions under the symbol of higher education institution, building a system of intangible incentives for achieving higher results, and subjectively – by the teacher when selecting participants in responsible sports events where non-professional athletes are selected for equal chance and achievements. Participation in student championships and university games is a strong motivator for full participation in sports activities.

The directions to development of the material provision of sports activities could be found in more serious commitment not only of the government, but also of various sports federations and sports clubs outside universities. Donation is a form of attitude towards the interests of young people and supports free the opportunities for student sports. It is possible to allocate a certain percentage of the budget of each higher education institution intended only and exclusively to development of sports facilities.

CONCLUSION: Modern society has a special feature – a huge flow of information coming to individuals through various channels. In this sense, awareness of the opportunities, problems, and successes of university sports are insufficiently presented to outside observers. An opportunity to overcome the negative attitude towards sports in higher education institutions is to create a PR group with the AUS, the main goal of which should be to popularize student sports events not only in a limited number of electronic media, but also in presentations on national level. It is necessary to gradually form public opinion about student sports as equivalent, despite being on amateur bases, to professional sports, not only as achievements but mostly as an emotion.

University sports in the modern innovative society are characterized by dualism – traditional methods and norms and innovative requirements of young people. The introduction of new sports, new technologies of teaching and conducting practical classes, the emphasis on a healthy lifestyle that ensures long-term professional development, the change of students' motivation, the improvement of facilities to a new, modern level and changing the attitude towards sports in the institutions of higher education are the key elements in future development of student sports.

REFERENCES:

[1] Arsova, R., "Concentration and Sustainability of Attention of Volleyball Players in UNWE Team at the Finals of the Student Championship", III Scientific Conference with International Participation "Modern Trends, Problems and Innovations in Physical Education and Sports in Higher Education", Collection of Reports, Publishing House – UNWE, 2017, pp. 49 -55, ISBN: 978-954-644-943-6

[2] Belomazheva-Dimitrova, S., Vidinovski, M. (2017). Climbing like a possibility for university sport practicing. Proceedings from International scientific conference "Pedagogical education – tradition and modernity", 16-17 November, 2017, Veliko Tarnovo: I and B, pp. 49-54

[3] Bozhkova, A., R. Arsova, "Analysis and Assessment of Students' Success in Basic Elements of Volleyball Game Technique". In: International Scientific Conference "Modern Technologies of Training, Control and Assessment in Physical Education and Sports in Educational System", Yearbook, TU, pp. 25-29, ISSN: 1311-896X, Varna, 2011

[4] Bozhkova, A., R. Arsova. Study on physical development and specific performance of students in groups profiled in volleyball in UNWE. In: International annual scientific conference "Optimization of training process in basketball, volleyball, handball" S&N, ed. No. 4, p. 94-99, ISSN 1310-3303, S., 2008
[5] Georgiev, Zh. (2020). Guidelines for development and innovation to improve Physical Education and sports at the University of Forestry. Monograph. S., Neofeedback
[6] Dzhurov, Z. – 30 years of AUS, 2024, internet, https://aus.bg/актуално
[7] European Sports Charter, https://www.coe.int/en/ web/sport/the-european-sports-charter/
[8] Law on Physical Education and Sports, https://lex.bg/laws/ldoc/2133881857
[9] Koleva, T. (2022). On some problems of physical education and sports in higher education institutions. Collection. Modern trends, problems and innovations in physical education and sports in higher education. Sofia, Publishing Complex – UNWE, ISBN 978-619-232-705-7, p. 97
[10] National Strategy for the Development of Physical Activity, Physical Education, Sports, and Sports Tourism 2012–2022 (www.strategy.bg)
[11] DECREE No. 46 of the Council of Ministers of 19.03.2020 on determining minimum differentiated amounts of funds for physical activity, physical education, sports and sports and tourism activities of children and students in institutions in the system of preschool and school education and in higher education institutions, published in State Gazette, issue 26 of 22.03.2020, in force since 22.03.2020, amended and supplemented, issue 18 of 2.03.2021, in force since 2.03.2021
[12] Sirakov, I. (2024). St. Cyril and St. Methodius University students' satisfaction of their attendance in physical education and sports classes – orienteering, Proceedings Problems and prospects of physical education and sports in the conditions of globalization, Veliko Tarnovo: St. Cyril and St. Methodius University Press, volume 4, pp. 43-50
[13] Sirakov, I., D. Kirov, M. Vidinovski. (2023). Digitalizing of the sport selection process in St. Cyril and St. Methodius University of Veliko Tarnovo. Proceedings Problems and prospects of physical education and sports in the conditions of globalization, Veliko Tarnovo: St. Cyril and St. Methodius University Press, Veliko Tarnovo, volume 1, pp. 85-94
[14] Tsolova, V. (2017). Physical education in higher education institutions. Theory and scientific and applied research. S., ISBN 978-954-718-484-8
[15] Tsolova, V., Y. Ivanov (2013). Physical education in higher education institutions – a new methodological approach. S., ISBN 978-619-160-238-4
[16] Tsonkova, D., Petkova, M., Belomazheva-Dimitrova, S., Vidinovski, M., Sirakov, I. (2023). Student satisfaction of the educational course "Tourism, Alpinism, Orienteering" at St. Cyril and St. Methodius university of Veliko Tarnovo. Proceedings Problems and prospects of physical education and sports in the conditions of globalization, Veliko Tarnovo: St. Cyril and St. Methodius University Press, pp. 9-19, ISBN 978-619-208-358-8