

Tropin, Yu., Romanenko, V., Holokha, V., Veretelnikova, N. (2018). Relationship between physical development and physical readiness among skilled wrestlers. *Slobozhanskyi Herald of Science and Sport*, 1(63), 102 – 107.

SUMMARY

Solodovnikov Mykola. Analysis of the Methodology for Developing Endurance in Qualified Wrestlers.

In the context of international competitions, athletes in contact sports must combine technical mastery with high endurance. This motor quality forms the foundation for all other motor skills and physical attributes of a wrestler, ensuring the ability to resist fatigue during any physical exertion.

Researchers emphasize that endurance development is crucial for the growth of a qualified wrestler's sports mastery, as it determines the ability to achieve high results in major competitions.

The aim of the study is to develop and experimentally test a methodology for improving the endurance of qualified wrestlers. The methodology is based on the combination of interval training with strength exercises and active recovery methods.

To assess endurance levels, athletes' performance times were recorded during an endurance test consisting of a four-exercise circuit: burpees (20 repetitions), push-ups (25 repetitions), squats (30 repetitions), performed in four consecutive rounds without stopping.

The study involved 18 freestyle wrestlers aged 18 to 30 with confirmed sports qualifications. Over a six-week training cycle, athletes followed a training program that included: interval training (high-intensity exercises with short active recovery periods); strength exercises (exercises to strengthen the muscular system, as well as bodyweight and light dumbbell exercises to maintain technical skills and prevent injuries); and active recovery methods to ensure a quick return to optimal condition after exertion.

As a result of the experiment, the average time to complete the endurance test before implementing the methodology was 178.54 seconds, which improved to 168.91 seconds by the end of the study. Recovery time after intense exertion decreased from 176.5 seconds to 158.2 seconds. These results demonstrate an improvement in athletes' endurance levels, which is crucial for successful participation in international competitions.

Key words: freestyle wrestlers, interval training, endurance, active recovery, exertion.

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A STUDY OF THE EXPERIENCE OF TRAINING FUTURE PHYSICAL EDUCATION SPECIALISTS IN CHINA

The article focuses on the training of physical education specialists and the improvement of their managerial career development. It is emphasized on the dynamic adjustment of the content of academic disciplines in higher education institutions to create personalized study programmes that meet the requirements for the acquisition of professional competence, including managerial competence; practical training that

helps to strengthen the mechanisms of cooperation between schools and sports organizations; building a practical platform that facilitates the effective transition of students from theory to practice; improving managerial competence and specialized skills with a focus on integrated training of students.

Based on the current context of sports development in China, the article focuses on the study of mechanisms of cooperation between schools and sports organizations. The state of training of sports specialists in China is revealed and the problems in higher education are outlined. The main problems are the imbalance of supply and demand for physical education specialists, insufficient practical training and lack of proper activity-based assessment of future teachers. It is noted that the creation of a more comprehensive system of training in higher education can provide effective theoretical training of students and develop their practical skills, which contributes to the efficiency of education and effective sustainable development of the sports industry. The author proposes ways out of this situation, focusing on restructuring the curriculum, practical optimization of the educational process and improvement of the assessment system, and describes the structure of updating the educational process aimed at integrating innovations, practical skills and organizational capabilities of student training.

Key words: *higher education institutions, professional training in China, future specialists in physical education management, managerial competence.*

Introduction. Specialists in the field of sports are individuals who have systematic theoretical knowledge and skills of their application in physical education and sports and meet professional requirements. The scope of their careers includes such specialized positions as sports education manager (including physical education teacher), sports event organizer and management specialist, sports research specialist, sports industry development specialist. Based on the diverse development needs of China's sports sector, these professionals can be classified into three main types: competitive sports professionals, school sports professionals, and sports recreation professionals. Each category has specific professional functions, including the organization of high-level sports competitions, teaching practice to schoolchildren, teaching practice in campus sports competitions, and organizing the promotion of mass sports events involving school students. However, it is very important to conduct a study of the experience of training future specialists in physical education management in China.

Analysis of recent research. The significant increase in demand for physical education and sports professionals in China has become a topic of study for many Chinese scholars. For example, M. Xu (2014) and others studied the impact of students' career orientation on the development of their professional abilities. At the same time, they proved that the development of professional abilities is reflected in management skills.

Scientists Q. Li and W. Qin (2022) revealed the ways of developing physical education specialists in the field of leisure in colleges and universities; S. Yu (2017) outlined the system of core competencies in physical education of Chinese students; J. Fernandez (2009) described the importance of knowledge in the training of physical education teachers in the new era; J. Hill and L. Kristie (2014) Brodin investigated physical education teachers' perceptions of the importance of university training and its role in teaching. The relevant studies indicate that there are deep contradictions in the modern field of higher education in sport that need to be resolved on a daily basis.

The purpose of the article is to study the experience of training future specialists in physical education management in China.

Summary of the main material. In the field of sport, management skills are a critical component for professionals to fulfil their institutional missions. The key elements of these skills primarily involve decision-making and implementation, general organizational work, innovative use of sports technologies and practical sports operations. Based on the characteristics of the sport sector, this set of capabilities can be divided into two main categories: specialized management and integrated management. The former specifically includes professional skills such as coordinating the activities of sports events, organizing and managing sports teams, and implementing the development of the sports industry. Complex management mainly involves management skills that focus on long-term development strategies, optimizing resource allocation and dealing with emergencies that may occur in sport and physical education classes conducted with students or school pupils (The State Council, 2016; Sue M., & Jacky F., 2014; Yan Z., & Tian X., 2018).

The sports training curriculum in China directs students to master innovative technical and specialized skills, and demonstrates a lack of professional orientation in the positioning of career development. Statistics show that the proportion of Chinese teacher education graduates who choose to work as coaches in mass sports schools, professional sports teams, or in educational institutions remains consistently low. The current shortage of physical education teachers and sports instructors reflects structural contradictions in the mechanisms of student development as future teachers and as professional athletes. These contradictions relate to homogenisation in terms of goal setting and lagging behind in responding to social needs (Clark N. M., Becker M. H, Janz N. K., 1991). In particular, this is manifested in

the discrepancy between real social needs and labour market offers for available positions of physical education teacher, competitive sports manager, coach, referee, etc.

Let us reveal the essence of the current situation with the development of managerial competences of school physical education specialists in China. Thus, the system of physical education competence development in China is based on the key role of practical teaching and the establishment of a systematic link between physical education management in school classes and practical training itself (The State Council, 2016; Richards J. M., & Gross J. J., 2000). However, this system has significant shortcomings at the level of institutional implementation. In particular, the problems are manifested in the insufficient completeness of the organizational structure of practical components, the lagging behind of management mechanisms in terms of processes, performance evaluation and insufficient use of motivation and incentive mechanisms. Currently, the curriculum used to train future physical education teachers suffers from outdated content, delayed updates and a disconnect from the sport industry itself. It is not able to effectively support the needs for the development of managerial competencies in specialists (Cheung S., & Sun S. Y., 1999; Zhang J. X., & Schwarzer R., 1995). This can be achieved through the gradual introduction of a multi-module learning system, where the basic stage focuses on the theory of physical culture and sports management and industry awareness; the advanced stage represents interdisciplinarity in learning, including digitalization and intelligent operations at sports grounds; the dynamic stage relies on feedback mechanisms (Li Q., & Qin, W., 2022; Yu S., 2017; Chen H., & Wu N., 2024).

Currently, the implementation of reforms in the field of physical education requires restructuring the model of training future teachers, deeply aligning it with the needs of implementing the health promotion strategy for schoolchildren in China. Improvement of the system of professional development of these specialists is possible by focusing on the formation of diverse professional competences in students of pedagogical universities with the possibility of using educational innovative and communication technologies (Josefsson T., Ivarsson A., Lindwal M., 2017).

At the same time, the current situation with the preparation of physical education teachers for the participation of schoolchildren in leisure activities and, accordingly, the acquisition of managerial competencies in this area of work needs to be improved. Significant improvement in China's

socio-economic development has led to a continuous increase in demand for sports leisure, which has had only an eight-year development cycle since the emergence of this specialized industry. The formation of disciplines in this area of training and the development of the industry itself still faces systemic problems. The existing problems are mainly related to the unclear positioning of the disciplines studied in higher education and the lack of practical adaptability of future specialists to local conditions, as well as structural flaws in the education system itself: inadequate alignment of the curriculum with the needs of the industry, delays in updating the knowledge of teachers and low professional awareness among students. At the same time, there is limited practical training and underdeveloped mechanisms for integrating education and the sports leisure industry, which is particularly evident in the commercial orientation of the latter, which negatively affects the quality of internships. Another disadvantage is the lack of mechanisms for joint development of sports leisure in schools and organizations.

This results in the lack of a close relationship between the education of young people in the field of physical education and sports and their demand in the labour market. The Chinese sports industry faces fundamental problems related to the education and training of specialists in this field of knowledge at universities, such as the mismatch between professional and social needs, as well as the mismatch between education and practice. The existing mechanisms for developing the education of physical education teachers lag far behind the pace of transformation of the sports leisure industry. In particular, this is observed in:

- delay in the formation of professional disciplines, as it is necessary to constantly take into account the existing difference between generations, between the content of specialized courses and industry changes in their content;
- designing disciplines, as traditional learning models are limited;
- textbook creation, as management in the field of physical culture and sports has an average renewal cycle of 5-8 years, so it is important to keep up with the rapid pace of educational innovation (Sue M., & Jacky F., 2014).

Modern sports industries such as smart sports technologies and e-sports are currently actively developing in China, creating new career requirements, but university programmes are responding to these innovations very slowly and generally lagging behind. Their rapid development places certain requirements on the training of specialists, namely the development of effective interdisciplinary and comprehensive

sports management skills. For example, in the field of esports, positions ranging from event data modelling to broadcasting require multidisciplinary technical capabilities, yet only 3% of universities offer esports-related programmes, indicating a significant lack of integration between the industry and education (Yan Z., & Tian X., 2018; Josefsson T., Ivarsson A., Lindwal M., 2017).

These problems can be solved by a physical education and sports teacher who has mastered fundamental knowledge, organizational and managerial skills for extracurricular activities and is engaged in continuous education in this area. However, it is very difficult to achieve professional competences in this area of professional activity in the process of studying at a higher education institution, as teacher training programmes in conventional universities still follow the traditional model focused on the skills of teaching physical education in schools and colleges. In our opinion, another component of the problem is important, which relates to the double constraint of the scale of the sporting event and the quality of the specialists who, given the completeness of their education, cannot provide effective services (The State Council, 2016). The main contradictions are as follows: the contradiction of the mechanism related to the supply of specialists, which is manifested in the imbalance of regional distribution - high supply of professional teachers in urban areas and demand for work in rural communities; career choices are significantly influenced by the level of salary and limited opportunities for career development higher education curricula focus on theory, while less emphasis is placed on practical and technical training in coordinating community relations to solve problems (Sue M., & Jacky F., 2014).

In the context of addressing the needs for digital governance of physical education and sport, the operational capabilities of intelligent platforms need to be improved (Yan Z., & Tian X., 2018). Regional imbalances are an obstacle to solving this problem. Statistics show that the proportion of lower-level staff (i.e. within the school) who, in addition to teaching physical education classes, prepare students for competitions is less than 15% in remote rural areas compared to urban areas.

Currently, there are limitations in the assessment of acquired management competencies in China. For example, the current competency assessment system pays too much attention to outcome assessment, which leads to an incomplete cycle of development and improvement of management skills. The main problems in this area are

inadequate scientific design of the indicator system, where higher education institutions usually use academic achievements of future physical education teachers and their sports qualifications as the main assessment criteria, while the development of management skills is not integrated into the certification structure. It should be noted that the development of a standardized certification system for management skills in professional fields has not yet been completed and there are no modern dynamic assessment methods available. Currently, traditional assessment methods are limited to written tests. They lack scenario-based tools, such as project management simulations and crisis response case studies. A mechanism for tracking and evaluating graduates' abilities during their professional development has not yet been established, as it is not integrated into the feedback system. Another problem affecting the training of physical education and sports students in China is the differences in the regional distribution of sports education resources (Hochschild A. R., 1979). In China, there are significant disparities between the eastern, central and western regions, as well as between urban and rural areas, which exacerbates regional imbalances and polarization of resource allocation. It is evident that higher education institutions have a significant geographical concentration, as most of them are located in the eastern region. The conditions for practical training vary significantly by region, with developed cities having a clear advantage in terms of sports grounds and student internships, while underdeveloped areas suffer from a relative lack of these (Sue M., & Jacky F., 2014; Hochschild A. R., 1979).

The differences in the investment of resources are characterized by marked differences. The state invests 2.3 times more in the development of physical culture and sports in the eastern regions than in the central and western regions. At the same time, international sports education projects are mostly located along the coast. Accordingly, China is currently experiencing unidirectional mobility of physical education and sports professionals (Lu H., 2018).

Another problem of training physical education and sports specialists in China is educational practice. It should go beyond traditional textbooks and teaching methods, focusing on the development of critical thinking and independent assessments. During the students' internship, it is desirable to include them in specialized discussion sessions to encourage innovative solutions; practice-oriented learning that emphasizes autonomy and diversity in planning activities, requiring

students to plan independently to avoid repetition of content. Through a variety of practical activities, both individual innovation capabilities and the creative potential of student groups are enhanced.

Conclusion. Therefore, the achievement of the strategic goal of higher education institutions in terms of the formation of managerial competencies of future physical culture and sport specialists in China requires the solution of many problems. Based on the current state of professional education, we have described a multidimensional system of professional competence development, which is based on professional theoretical education, focuses on improving managerial skills, and is aimed at the practical development of education seekers. In the future, the Chinese state should make great efforts to further promote the balanced distribution of regional resources, evaluate management skills and develop their mechanisms, and provide a wide space for the development and continuous growth of physical culture and sports management skills.

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АНОТАЦІЯ

Чень Жунхао. Дослідження досвіду підготовки майбутніх фахівців фізичної культури у Китаї.

У статті наголошено на підготовці фахівців фізичної культури та вдосконаленні у них розвитку управлінської кар'єри. Наголошено на динамічному коригуванні змісту навчальних дисциплін у закладі вищої освіти для створення персоналізованих програм навчання, які відповідають вимогам щодо набуття професійної компетентності, в тому числі управлінської; практичного навчання, яке сприяє зміцненню механізмів співпраці між школою та спортивними організаціями; побудови практичної платформи, яка сприяє ефективному переходу студентів від теорії до практики; підвищення управлінської компетентності та спеціалізованих навичок із зосередженістю на комплексному навчанні емоційному управлінню, координації спілкування та системному мисленню майбутніх вчителів фізичної культури у Китаї.

Базуючись на поточному контексті розвитку спорту в Китаї, зосереджено увагу на дослідженні механізмів співпраці між школою та спортивними

організаціями. Розкрито стан підготовки спортивних фахівців у Китаї та окреслено проблеми, що мають місце у вищій школі. Основними проблемами визначено дисбаланс попиту та пропозиції на фахівців фізичної культури, недостатня практична підготовка та відсутність належного діяльнісного оцінювання майбутніх педагогів. Зазначено, що створення більш комплексної системи підготовки у вищій школі здатне забезпечити результативне теоретичне навчання студентів та розвинути у них практичні навички, що сприяє підвищенню ефективності освіти та ефективному сталому розвитку спортивної індустрії. Запропоновано шляхи виходу з цієї ситуації, що зосереджені на реструктуризації навчального плану, практичній оптимізації освітнього процесу та вдосконаленні системи оцінювання, та описано структуру оновлення освітнього процесу, спрямовану на інтеграцію інновацій, практичних навичок та організаційні можливості підготовки студентів.

Ключові слова: заклади вищої освіти, професійна підготовка в Китаї, майбутні фахівці з управління фізичною культурою, управлінська компетентність.

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PROBLEMS AND PROSPECTS OF FORMING FUTURE MUSIC TEACHERS' READINESS FOR PROFESSIONAL ACTIVITY

The article reveals the essence, relevance and main contradictions of the process of forming the readiness of future music teachers for professional activity in general secondary education institutions in the conditions of modern society. It is emphasised that the transformational processes in the education system, the introduction of a competence-based approach, the digitalisation of the learning environment and the growing demands on the teacher's personality necessitate a rethinking of the content, forms and methods of professional training of artistic specialists. The main problems that complicate the effective formation of future music teachers' professional readiness for professional activity in educational institutions of Ukraine are identified. These include insufficient integration of digital technologies into the educational process of students, and therefore a low level of digital competence of future teachers; limited interdisciplinary interaction and fragmented interdisciplinary learning; impossibility of integrating ICT into the educational process of students and their integration into music education; insufficient practice-orientedness of the educational process and the educational programme as a whole; low level of students' motivation for professional self-development; limited opportunities for pedagogical practice in schools with modern equipment; incomplete adaptation of the educational environment to the requirements of the New Ukrainian School and the modern digital space; incompatibility of traditional pedagogical methods of teaching with modern educational trends. The main problems that complicate the effective formation of the professional readiness of future music teachers are identified, including insufficient integration of digital technologies, limited interdisciplinary interaction, and weak practice-orientation of the educational process. At the same time, promising areas for improving educational training are outlined, including the use of innovative pedagogical technologies,