

Pedagogical conditions of introduction of innovative educational technologies into the professional training of future specialists in the field of physical education and sport

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Abstract:

The article deals with the professional training of future specialists in the field of physical education and sport to health-related and recreational activities. The aim was to investigate the pedagogical conditions for implementation of innovative forms and methods of teaching in the process of training of future specialists in the field of physical education and sport in Ukraine. The following methods were used: theoretical analysis and synthesis of the library resources, sociological methods (questionnaires); methods of mathematical statistics.

Theoretical analysis of scientific and technical literature revealed the need for a wider application of innovative forms and methods of teaching during the training of future specialists in physical education and sport for health-related and recreational activities. It was found that at universities of Ukraine the level of innovative technologies implementation in the educational process of training of future specialists in physical education and sport for health-related and recreational activities is insufficient.

It was defined the level of mastering abilities and skills in physical recreation by future specialists in physical education and sports. The best were mastered the following skills: to determine the level of a person's fitness; to generate motivation for recreational and health activities; to carry out health-related and recreational activities with people of different ages and sex; to develop individual behavior aimed at maintaining and strengthening health; to design recreational and fitness classes with different types of exercise. The abilities to advertise recreation and health services and carry out health-related and recreational activities of competitive nature among the different groups of people were a bit poor.

The analysis of the obtained study results points to the expediency of amending and correcting existing system of training of future specialists in physical education and sport for health-related and recreational activities. Improvement of the existing system, through the use of innovative teaching technologies, will improve the quality of training for physical recreation areas and improve the level of professional knowledge and skills of future specialists.

Key words: professional training, innovative technologies, future specialists, health-related and recreational activities.

Introduction

Modern education creating and providing favorable conditions for individual human development is designed to prepare a competitive specialist for the labor market, who is focused on lifelong professional development, self-improvement, and promotion track [1, 2]. This statement can be fully applied to the training of future specialists in the field of physical education and sport, as evidenced by a number of researches conducted by the following scientists [3, 4, 5].

Society puts new demands on one's education level and expects from future specialists in the field of physical education and sports abilities to effectively solve various psychological and physical problems of people of different ages and sexes in the process of health-related and recreational activities on the basis of acquired knowledge and lifelong learning skills [6, 7].

In recent years, because of the absence in Ukraine a strong school of training for physical recreation areas, according to O. Andreeva, there was a persistent shortage of specialists in this segment of the labor market [2]. So, today the society requires a higher education to train specialists in physical education and sport who can efficiently perform their professional duties in market conditions and constantly improve themselves [4, 7].

Creating an effective system of training skilled professionals require extensive use of innovative technologies in the educational process of higher education institutions (HEI) [8, 9]. According to E. P. Karhapolova it would be possible to simulate life situations; effectively address a number of challenges that can

not be solved by the traditional teaching, but the main thing is to bring students to the real professional activity [10, p. 28-29].

In this regard, as it was noted by L. Zavatska, J. Sotnyk and V. Kowalski, «there is a need for selection of forms and methods of training and a clear focus on solving social and practical problems» [11, p. 139].

Therefore, the possibility of introduction and use of innovative forms and methods of training future specialists in the field of physical education and sport requires the further study.

Connections with academic programs, plans, themes. The study was carried out as planned research of Lviv State University of Physical Culture.

Material and methods.

In view of the above we questioned university faculties of Ukraine participating in the training of senior students and future specialists in the field of physical education and sport for health-related and recreational activities. The research was conducted during 2015-2016. The questionnaire covered 96 lecturers and 822 students of ten universities of Ukraine: Dnipropetrovsk State Institute of Physical Culture and Sports, the National Pedagogical University named after M. P. Dragomanov, National University of Physical Education and Sports of Ukraine, Ternopil National Pedagogical University named after Volodymyr Hnatyuk, Lviv State University of Physical Culture, Vinnytsia National Pedagogical University named after Mykhajlo Kotsiubynskyi, Chernivtsi National University named after Yuriy Fedkovich, Uzhgorod National University, Zhytomyr State University named after Ivan Franko, Precarpathian national University named after Vasyl Stefanik.

We used the following **methods**: theoretical analysis and synthesis of the library resources, sociological methods (questionnaires); methods of mathematical statistics.

The aim was to investigate the pedagogical conditions for implementation of innovative forms and methods of teaching in the process of training of future specialists in the field of physical education and sport in Ukraine.

The objectives of the study:

1. To analyze the library resources on the state of implementation of innovative technologies in the training of future specialists in the field of physical education and sport.

2. To identify the lecturers' level of using innovative technologies while the educational process in higher educational institutions of Ukraine for training of future specialists in the field of physical education and sport for health-related and recreational activities.

3. To determine the level of knowledge, abilities and skills in health-related and recreational activities of future specialists in the field of physical education and sports.

Results

Previous studies have found modernization appropriateness of higher physical education by updating its structure (the transition to a two-tier system of specialist training) and content (computerization, humanization, liberalization) [6]. We have found the essence of methodological approaches (systematic, active, axiological, cultural, competence, personality-oriented and modular), which serve as a guide for the development of the main principles of the professional training concept of future specialists the field of physical education and sport for health-related and recreational activities; defined a set of socially significant and professionally important qualities required from future specialists in physical education and sport to be competitive in the labor market and to achieve top career position [7, 12].

It was found that to attain high-quality training of future specialists in the field of physical education and sport for recreational and health-relative activities in universities of Ukraine it is essential to create some pedagogical environment including:

- to provide personality-oriented curriculum courses teaching for future specialists in the field of physical education and sport;
- to create a positive motivation and desire to acquire the necessary knowledge in students in the field of physical recreation and recreational technologies;
- to use widely, while the training course, methods and interactive learning, to encourage students to their own search, enhance practical classes and promote practical skills development in the field of physical recreation.

All the above led us to conduction of further scientific research aimed at the study of the innovative technologies introduction in the educational process of universities in Ukraine and identification preparedness of future specialists in the field of physical education and sport for health-related and recreational activities.

We conduct a questionnaire among lecturers and students of ten universities in Ukraine. During the questioning of lecturers, we cleared up if they directed their efforts at forming positive motivation of future specialists in physical education and sport for health-related and recreational activities. It was revealed that 53.83% of teachers were sure that they were; 32.02 % of them said that rather yes than no; 12.53 % of respondents stressed that, rather no than yes and 1.62 % of lecturers could hardly answer. The respondents from three universities (Vinnitsa National Pedagogical University named after Mykhajlo Kotsiubynskyi, Dnipropetrovsk State Institute of Physical Culture and Sports and the National University of Physical Education

and Sports of Ukraine) almost unanimously say that they are making their best to create motivation in future specialists for health-related and recreational activities.

Thus, the conducted questionnaire among students shows that in the future they are going to work as specialists in the field of physical recreation - 64.33 % of respondents; 20.44 % of questioned say that most likely they will not be engaged in recreational and health-related business, and 15.23 % of respondents have not yet decided on their future employment.

However, the process of training of qualified specialists who will be competitive in the labor market requires extensive use of interactive methods and forms of education. Traditional methods do not allow training specialists, who meet the modern requirements of society [8].

In view of the above, we, using the questionnaire, defined which innovative training forms were used by teachers while training future specialists in the field of physical education and sport for health-related and recreational activities. Respondents were asked to choose one of the four possible answers (Fig. 1).

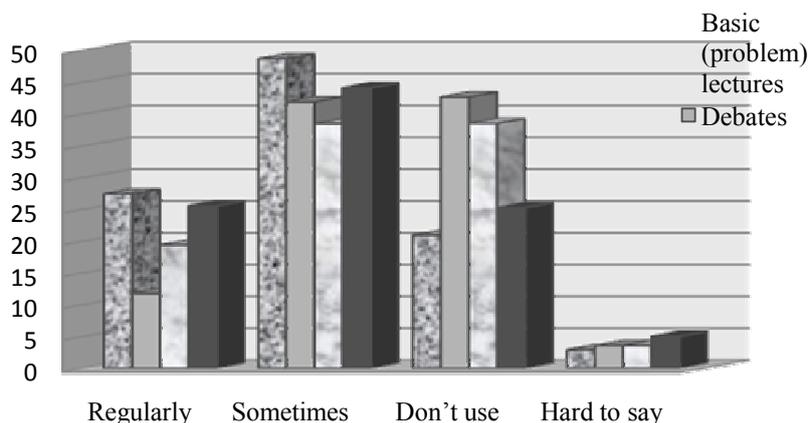


Fig. 1. Introduction of innovative training forms by lecturers in HEIs while the training of future specialists in the field of physical education and sport (%)

The survey revealed that 27.43 % of respondents regularly use problem lectures; debates are practiced by 25.55 % lecturers; mini-lectures are common among 19.41 % of teachers; debates are arranged only by 11.80 % of questioned ones. Nevertheless, lecturers do not use in their work with students the mentioned teaching methods in following order: debates 42.69 %; mini-lectures - 38.53 %; dispute-seminars, dispute-seminars - 25.29 %; problem lectures - 20.95 %.

Comparative analysis of the obtained data we got from lecturers of different universities showed that problem lectures are regularly used by the lecturers of Zhytomyr State University (70.0 %), Ternopil National Pedagogical University (50.0 %) and Lviv State University of Physical Education (45.46 %); mini-lectures are popular in Zhytomyr State University named after Ivan Franko (50.0 %) and Ternopil National Pedagogical University named after Volodimir Hnatyuk (50.0 %); dispute-seminars are common for Dnipropetrovsk State Institute of Physical Culture and Sports (66.67 %) and National University of Physical Education and Sport of Ukraine (66.67 %); debate lectures are not popular with any of the ten named universities in Ukraine.

Also, we have found during the research which of the proposed modern methods (business and role-playing, case studies, project method, training and blitz-survey) are used by teachers while training of future specialists in physical education and sports for health-related and recreation activities.

According to the survey results, the respondents regularly apply blitz survey - 27.19 %, business and role-playing - 18.37 %; trainings - 14, 37 %; project method - 9.90 %; case studies - only 4.02 %. Hereby, the percentage of those who do not use in their work the mentioned above methods is: case studies - 59.76 %; project method - 50.42 %; trainings - 47.61 % (Fig. 2).

The next set of questions in our questionnaire revealed a variety of tests that teachers use in their work.

It turned out that on the purpose of educational assessment while training future specialists in physical education and sport, dominant majority of respondents used the traditional test paper (90.26 %); less popular among them is computer testing in the classroom (43.16 %) and as for on-line testing included in the system of distance learning is not popular with teachers (only 19.7 %).

An important part of future professionals training is research work. Through participation in research activities students can master skills with a variety of information sources, acquires the ability to organize health-related and recreational activities and manage to apply the methods of scientific research in practice.

The survey showed that 33.12 % of lecturers regularly engage future specialists in physical education and sport to research during their training aimed at health-related and recreational activities; more than half of the respondents, 51.99 %, agreed that rather yes than no; 12 78 % - rather no than yes, and 2.11 % - chose the answer "hard to say".

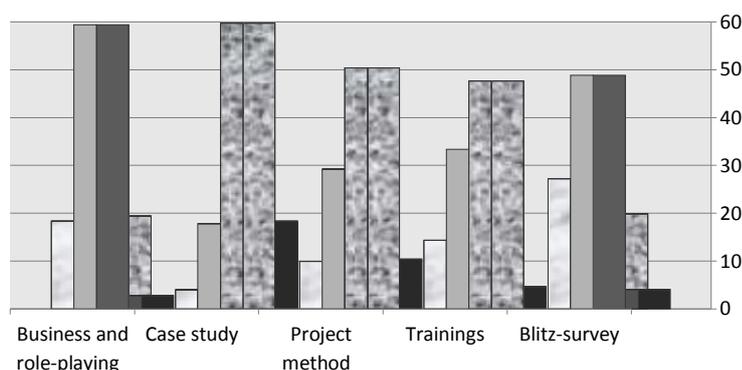


Fig. 2. The use of modern teaching methods by lecturers in the training of future specialists in physical education and sport (%)

Considering the fact that it is impossible to provide quality experts training without the presence of sufficient scientific and technical literature, we tried to find out whether lecturers need it. Most of the surveyed lecturers (74.35 %) indicated that they require scientific and technical literature while the training future specialists in physical recreation; 15.71 % of respondents said that rather yes than no; 34.64 % - rather no than yes, and only 1.0 % of teachers couldn't answer. One of the components of quality training of future professionals today is multimedia support for lectures and practical classes. Questionnaires allowed us to find out that 62.19 % of lecturers agree with the usefulness of such support, 23.55 % - rather yes than not; 11.64 % - rather no than yes, and 2.62 % - could not answer the question. The conducted survey showed that many lecturers use in their work the traditional methods of teaching that are not always conducive to the formation of motivation, the proper knowledge and skills of future specialists in physical education and sport.

Due to the survey we also set the goal of joining a university of physical and sport. Thus, 24.11 % of students would like to get higher physical education, 47.36 % - dream of working in the field of physical education and sports, 21.19 % - want to be engaged in health-related and recreational activities 3,05 % - came to a college following the advice of parents and friends, and 4.29 % of respondents couldn't answer. Thus, half of the respondents dream to get higher physical education. Respondents' assessment of their level of knowledge in the area of health-related and recreational activities showed that students mastered a technique of monitoring the curative effects of exercising on humans (77.60 %); features of health-related and recreational activities application for persons of different sexes (76.13 %) and ages (74.20 %); forms of health-related and recreational activities (74.43 %); an objective of health-related and recreational activities (73.64 %) (Table. 1).

Along with this, the students pointed to insufficient knowledge of the contents of legislation and policy documents on development of physical culture and sports; subsystem of state and public organizations, whose competence is health-related and recreational activities of various population groups.

Table 1. The answers of future specialists in physical education and sport concerning their level of knowledge in the field of health-related and recreational activities (n = 822)

№	Content of knowledge in the field of health-related and recreational activities	Possible answers %			
		Yes, I master	Rather yes than no	Rather no than yes	Hard to say
1.	Content of legislative and policy papers on development of physical culture and sports	20.09	37.69	33.84	8.38
2.	The subsystem of state and public organizations, whose competence is health-related and recreational activities of various population groups	15.88	42.60	31.62	9.90
3.	The objective of recreational and health activities	48.39	35.25	11.58	4.78
4.	The technique of monitoring the curative effects of exercising on humans	35.82	41.78	15.38	7.02
5.	The essence of propaganda and promotion of recreational and health services	34.39	36.67	20.20	8.74
6.	The forms of recreation and recreational activities	32.02	42.41	18.38	7.19
7.	features of the use of health-related and recreational activities for people of different sex	33.52	42.61	17.44	6.43
8.	features of the use of health-related and recreational activities for people of all ages	28.79	45.41	17.7	8.10
9.	features of the use of health-related and recreational activities for people of different fitness levels	28.86	48.28	15.44	7.42
10.	The nature of modern health systems	31.77	40.49	16.82	10.92

Due to the survey we also found the level of future specialists in physical education and sports abilities and skills in physical recreation. Most students acquired the best the following skills: to determine the level of a person's fitness (87.50 %); to generate motivation for recreational and health activities (79.77 %); to carry out health-related and recreational activities with people of different ages and sex (78.64 %); to develop individual behavior aimed at maintaining and strengthening health (77.89 %); to design recreational and fitness classes with different types of exercise (77.78 %) (Table. 2).

Table 2. The answers of future specialists in physical education and sport concerning their level of abilities and skills in the field of health-related and recreational activities ($n = 822$)

№	Content of abilities and skills in the field of health-related and recreational activities	Possible answers %			
		Yes, I master	Rather yes than no	Rather no than yes	Hard to say
1.	advertise health-related and recreational services	30.86	41.01	20.65	7.48
2.	determine a person's fitness level	44.94	42.56	7.78	4.78
3.	design recreational and fitness classes with different types of exercise	31.06	46.72	15.21	7.01
4.	generate motivation for recreational and health activities	39.13	40.64	11.45	8.78
5.	carry out health-related and recreational activities with people of different ages and sex	32.66	45.98	13.44	7.92
6.	carry out health-related and recreational activities considering interests and tastes of various people	28.44	46.69	15.63	9.24
7.	carry out recreational and recreational activities with people of different fitness levels	32.82	43.53	16.10	7.55
8.	carry out health-related and recreational activities of competitive nature among different categories of population	30.32	43.40	15.54	10.74
9.	develop individual behavior aimed at maintaining and strengthening health	30.32	43.40	15.54	10.74

According to the list of abilities and skills that students haven't learned enough, the abilities to advertise recreation and health services and carry out health-related and recreational activities of competitive nature among the different groups of people dominate.

While questioning, we also found out whether both the teachers and students needed the practice which should be carried out in specialized recreational and health institutions. The results showed that 68.85 % of respondents-teachers believe so; the remaining 31.15 % - could not clearly answer the question. As for students, 78.20 % of them confirmed the need for a practical training.

The last stage of our study was to evaluate the students' readiness to their health-related and recreational activities. Thus, 27.89 % of respondents gave a positive answer, 61.18 % - are not at all confident in their preparedness; 14.86 % - consider themselves unprepared for such work and 10.93 % - could hardly answer this question.

Discussion

Training a professional - a true professional of his craft - is carried out using modern technologies and methods gained national and international experience. The training process should be based on the principles of humanization of education, personality oriented approach, update content and forms of teaching and educational process in accordance with international standards.

Higher education content has got two components: educational and professional. National high school focuses on the first component. According to L. V. Pshenychna, so-called fundamentalization of learning is a forced shift from a vocational component to an educational one, indicating a failure in modern specialists training. Mastering the profession remains in the background [13, p. 15]. We believe that this view is debatable, though it found partial confirmation in the results of our research. It was found that the majority of surveyed students need more practical training for the implementation of health-related and recreational activities. Only 27, 89% of respondents consider themselves to be ready to work in the field of physical recreation.

According to scientists O. Pometun [9], M. T. Danilko [14] and others, one of the promising areas of modernization of higher education is the introduction in higher education some interactive teaching methods aimed at enhancing the students' thinking, development of partnerships between teachers and students, improving the effectiveness of training by the depth and speed of processing information received, self-improvement of teachers and future professionals, minimization of their efforts. Our studies have shown insufficient use of innovative learning technologies in the training of specialists in physical education and sport. Most of the lecturers who participated in our studies, prefer traditional methods of teaching students. Our results confirm the research findings of other authors, including Ye. P. Karhapolov [10], which notes that the relevant

question now is studying ways to enhance teaching and learning of students who would encourage their active intellectual and practical activity in the process of mastering the educational material .

Another problem of higher education as it is believed is the lack of motivation of students and teachers. The conducted survey showed that many teachers use in their work the traditional methods of teaching that are not always conducive to the formation of motivation, the proper knowledge and skills of future specialists in physical education and sport. One-third of surveyed students do not plan to be engaged in physical recreation. This confirms the opinion of L. V. Pshenychna, who argues that modern students' attitude is undergoing complex and contradictory processes [13]. Many students' worldview is characterized by a significant degree of criticism in the views of the surrounding reality, combined with a reduced business activity. Most of the students don't set clear goals in their lives that go beyond everyday life and mobilize the high quality preparation for future professional activities.

Our data have been supported by the findings of O. I. Fedorov, who concluded that through innovative forms, methods and means of training specialists in physical education and sport it could be effective enough to solve a number of problems, which could hardly be achievable in traditional training and namely to form not only informative but also professional motives and interests; to develop a specialist's system thinking; to give a holistic view of professional activity; to form a responsible attitude to business; to teach methods of modeling [15, p. 56].

Our results also confirm the data of other authors, including O. Andreeva, and O. Blahij, indicating the need to develop and prove theoretically some approaches to selection and designing the content of the educational process in higher education; identify prospective directions of training modernization of future professionals for the industry [2].

Thus, the analysis of the obtained study results points to the expediency of amending and correcting existing system of training of future specialists in physical education and sport for health-related and recreational activities. Improvement of the existing system, through the use of innovative teaching technologies, will improve the quality of training for physical recreation areas and improve the level of professional knowledge and skills of future specialists.

Conclusions

1. Theoretical analysis of scientific and technical literature revealed the need for a wider application of innovative forms and methods of teaching during the training of future specialists in physical education and sport for health-related and recreational activities.

2. It was found that at universities of Ukraine the level of innovative technologies implementation in the educational process of training of future specialists in physical education and sport for health-related and recreational activities is insufficient. In their teaching process 27.43 % of the lecturers regularly use problem lectures; dispute-seminars are used by 25.55 % of the lecturers; mini-lectures are used by 19.41 % of the lectures, and debates - only by 11.80 % of the respondents. However, lecturers do not use in their work with students the mentioned teaching methods in following order: debates 42.69 %; mini-lectures - 38.53 %; dispute-seminars, dispute-seminars - 25.29 %; problem lectures - 20.95 %.

3. It was defined the level of mastering abilities and skills in physical recreation by future specialists in physical education and sports. The best were mastered the following skills: to determine the level of a person's fitness (87.50 %); to generate motivation for recreational and health activities (79.77 %); to carry out health-related and recreational activities with people of different ages and sex (78.64 %); to develop individual behavior aimed at maintaining and strengthening health (77.89 %); to design recreational and fitness classes with different types of exercise (77.78 %). The abilities to advertise recreation and health services and carry out health-related and recreational activities of competitive nature among the different groups of people were a bit poor.

References

- Hribovska, I., Danylevych, M., Ivanochko, V., and Shchur, L. (2015). Organizational Conditions of Healthy Lifestyle Promotion for Arts Students. *Journal of Physical Education and Sports*, 218 – 224.
- Andreeva, O., and Blagiy, A. (2015). System of Training of Experts of Physical Recreation. *Physical education, Sports and Health Culture in Modern Society*, 3(31), 51 p.
- Voynar, Y., Navaretskiy, D., and Glasirin, I. (2005). Development and Modern Trends of Training Systems for Specialists in Physical Education under Conditions of European Integration. Vidlunnia-Plus, Cherkassy, 184 p.
- Andreeva, O. V. (2014). *Physical Recreation*. Poligraphservice, 286 p.
- Protsenko, U., Pantiuk, T., Romanchuk, O., and Danylevych, M. (2016). Improvement Features of the Ukrainian Physical Education System. *Journal of Physical Education and Sports*, 16(1), Art 19, 113– 117.
- Danylevych, M. (2015). Methods of Modernization of Future Physical Education and Sports Specialists Training for Recreational Activity. *Scientific Journal NPU of M. P. Dragomanov*, Ed 15, Scientific-Pedagogical Problems of Physical Culture (Physical Culture and Sports), 4(59), 22 – 25.

- Danylevych, M. (2014). Professional Approach as a Foundation of Higher Physical Education of Future Physical Education and Sports Specialists. *The Unity of Science: International scientific professional periodical journal*. Vienna, 21 – 25.
- Krutsevich, T. and Zaytseva, M. (2005). Innovative Processes in Area of Training and Retraining of Physical Education Specialists. *Theory and Methodology of Physical Education and Sports Issue 4*, 41 – 44.
- Pometun, O. and Pirozhenko, L.(2004). *Modern Lesson: Interactive Technology of Education*. Kiev, A.S.K., 56 p.
- Kargapolov, E. P.(1992). Organizational and Managerial Foundations of Continuous Physical Education. *Theory and Methodology of Physical Education, Training and Recreational Physical Culture*. Moscow, 49 p.
- Zavatska, L., Sotnik, Z., and Kovalskiy, V. (2005). Professional Training Features of Physical Rehabilitation and Education Specialists at the Health, Physical Culture and Sport Faculty of International Economic and Liberal Arts University of the Academic Stepan Demyanchuk. *Physical Education, Sports and Health Culture in Modern Society*. Lutsk, 139–142.
- Danylevych, M. (2017). Professional Training Concepts for Future Physical Education and Sports Specialists in Recreational Activity. *Scientific Journal NPU of M. P. Dragomanov*, Ed 15, Scientific-Pedagogical Problems of Physical Culture (Physical Culture and Sports), Kiev, (84)17, 146 – 149.
- Pshenychna, L. V. (2013). Higher Education in Ukraine: State, Causes of Stagnation, Prospects of Development. Newsletter of Gluhivskiy National Pedagogical University of Alexander Dovzhenko. *Pedagogical Sciences*, Gluhiv, 22, 10 – 18.
- Danylko, M. T. (2000). Formation of Preparedness of Physical Education Teachers for Professional Activity. *Physical Culture and Education of Several Population Groups*, Lutsk, 190 p.
- Fedorov, A. I. (2000). Modern Information Technologies in System of Higher Physical Education. *Theory and Practice of Physical Culture*, 12, 56–59.