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THE DEVELOPMENT OF MOTIVATION TOWARDS PHYSICAL TRAINING AND SPORTS IN STUDENTS OF PROFESSIONAL SCHOOLS

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Abstract

From practice it is known that highly productive labour is in most cases protected not only by the existence of an interest in working for their profession, but in the adaptability of his body to perform motor operations associated with its production activities. As indicated by research students usually lost before any kind of motor activity, if it causes a physical fatigue. The realities of the economy indicate the need for the establishment and expansion of labour market, where there is a large demand for skilled workers in the manufacturing sectors of many industries. On this basis, a significant portion of our youth is aware of this fact and endeavour to obtain such a profession for which there is the greatest demand for production, linking their future with the hope of a paying job, and with it, with its stable and worthy future life. With this in vocational and technical institutions are in the process of physical education at Ministry of education of Ukraine approved the program, which is aimed at strengthening of health of schoolchildren, prevention of occupational diseases, integrated development of physical qualities, motor abilities and skills. But this program does not include teaching methods, which affects the formation of the motivational abilities of students of vocational and technical institutions, and the development of physical qualities, motor abilities and skills that are an integral component in their future professional activities of a skilled worker. Since an increased level of physical qualities is an integral component in some of the production occupations in such industries: construction, metallurgical industry, oil industry, food industry, agriculture, engineering, mining and other sectors of the economy.

Key words: physical training, students, profiling, applied, physical education, physical qualities, motor skills, success, profession, motivation, schools.

Богдан Семенів, Петро Біленький, Олена Голубєва, Орест Василів, Тарас Приставський. Формування**я в учнів професійно-технічних навчальних закладів мотивації до занять фізичною культурою та спортом.** Із практики виробництва відомо, що високопродуктивна праця в більшості випадків забезпечується не лише наявністю зацікавленості в робітника своєю професією, але й пристосованістю його організму до виконання рухових операцій, пов'язаних із його виробничою діяльністю. Як засвідчують наукові дослідження, інтерес учнів зазвичай утрачається до будь-якого виду рухової діяльності, якщо вона викликає в нього швидку фізичну втому. Реалії економіки країни вказують на необхідність створення й розширення ринку праці, на якому зараз виникає великий попит на кваліфікованих працівників у виробничих сферах багатьох галузей народного господарства. Ураховуючи це, значна частина нашої молоді усвідомлює такий факт і прагне отримати такі професії, на які є найбільший попит на виробництві, пов'язуючи своє майбутнє з надією на високооплачувану працю, а разом із цим – зі своїм стабільним і достойним майбутнім особистим життям. Водночас у ПТНЗ здійснюється процес фізичного виховання за затвердженою МОН України програмою, яка спрямована на зміцнення здоров'я учнів, профілактику професійних захворювань, комплексний розвиток фізичних якостей, рухових умінь і навиків. Але разом із тим ця програма не враховує методики навчання, що впливає на формування мотиваційних здібностей учнів ПТНЗ та на розвиток фізичних якостей, рухових умінь і навиків, які є невід'ємною складовою частиною в майбутній професійній діяльності кваліфікованого працівника, оскільки підвищений рівень фізичних якостей – невіддільний компонент у деяких виробничих професіях у таких галузях, як будівництво, металургійна промисловість, нафтогазова галузь, харчова промисловість, сільське господарство, машинобудування, гірничодобувна та інші галузі народного господарства.

Ключові слова: фізична підготовка, учні, профілююча, прикладна, фізичне виховання, фізичні якості, рухові навики, успішність, професії, мотивації, навчальні заклади.

Богдан Семенив, Петр Биленький, Елена Голубева, Орест Василив, Тарас Приставский. Формирование мотивации в учеников профессионально-технических учебных заведений к занятиям физической культурой и спортом. Из практики производства известно, что высокопроизводительный труд в большинстве случаев

обеспечивается не только наличием заинтересованности рабочего своей профессией, но и в приспособленности его организма к выполнению двигательных операций, связанных с его производственной деятельностью. Как указывают научные исследования, интерес учащихся обычно теряется к любому виду двигательной деятельности, если она вызывает у них быструю физическую усталость. Реалии экономики страны указывают на необходимость создания и расширения рынка труда, на котором сейчас возникает большой спрос на квалифицированных работников в производственных сферах многих отраслей народного хозяйства. Исходя из этого, значительная часть нашей молодежи осознает этот факт и стремится получить такие профессии, на которые есть наибольший спрос на производстве, связывая свое будущее с надеждой на высокооплачиваемую работу, а вместе с этим – со своим стабильным и достойным будущими личной жизнью. Вместе с этим в ПТУЗ осуществляется процесс физического воспитания по утвержденной МОН Украины программе, которая направлена на укрепление здоровья учащихся, профилактику профессиональных заболеваний, комплексное развитие физических качеств, двигательных умений и навыков. Но вместе с этим эта программа не учитывает методики обучения, которая влияет на формирование мотивационных способностей учащихся ПТУЗ и на развитие физических качеств, двигательных умений и навыков, которые являются неотъемлемой составляющей в будущей профессиональной деятельности квалифицированного работника, поскольку повышенный уровень физических качеств является неотъемлемой составляющей в некоторых производственных профессиях в таких отраслях, как строительство, металлургическая промышленность, нефтегазовая сфера, пищевая промышленность, сельское хозяйство, машиностроение, горнодобывающая и другие отрасли народного хозяйства.

Ключевые слова: физическая подготовка, учащиеся, профилирующая, прикладная, физическое воспитание, физические качества, двигательные навыки, успешность, профессии, мотивации, учебные заведения.

Introduction. Analysis of literary sources allows us to state about the absence of methods from the motivation formation of student interest of vocational and technical educational institutions towards physical culture and sport taking into account the profile of physical training. Age dynamics of physical development of man indicates that just the stage is from 14–15 to 17–18 years is different from other by accelerated growth of physical qualities.

That is why, based on research data to recommend for the development of physical qualities, movement abilities and skills to apply appropriate techniques, which at this time are carefully designed in sports, which belongs to training programs for this age contingent of students of vocational schools. Through the efforts of many scientists, including V. A. Maxymovych, G. G. Lapshyna, L. P. Pylypeya, R. T. Rajewskyj, V. A. Romanenko, A. I. Podlyesnoho, S. I. Prysyazhnyuk, defining the content, forms and methods of use of physical culture and sports to increase the efficiency of young specialists training, making it possible to organize in many higher educational institutions purposeful work on physical training of students considering their chosen profile [2; 8; 9; 14].

Thus, V. A. Kabachkov and S. A. Polijevsjkyj created a model PPFP of students from educational institutions of technical and vocational education, on the basis of created by them professiogram of professionally applied physical training, PPFP relevant tasks, as well as the selection of appropriate sports, their elements and exercise for PPFP, elaborated practical recommendations for specific trades workers [5; 8].

Recommendations from PPFP for different working trades are developed on the concept of V. A. Kabachkov and S. A. Polijevskyj, beginning with 1971, were included in all programs of physical education of students from educational institutions of technical and vocational education and became the theoretical and methodological basis professionally aimed physical education for training specialists of working professions [5; 8].

Research conducted on the comparative effectiveness of the use different organizational methods of general physical and special physical training, in the control and experimental groups of vocational and technical educational establishments and showed the advantage lessons on physical education with the help of circular training method, especially in the development of physical qualities. The results of the experiment allowed to conclude that the passage of the program material in physical education in professional technical colleges using circular lessons gives positive results, promotes successful development of general, special and professional-applied physical preparation. Thus, circular training, introduced in the lesson of physical culture, contributes to the progression of loads, increases the motional density of classes, making lessons more emotional and varied. [10; 13].

V. Kovalj (2012), assumes that obligatory element of physical education of PTC students is professionally applied physical preparation, which is the basis of formation of skills and physical qualities, which are necessary to perform professionally oriented tasks, production of functional resistance to the terms of this activity [5].

Y. Zhylin, T. Bondar (2015) assume, that the improvement of physical education in professional technical educational establishments consists in development of pedagogical methods of tasks realization of physical culture formation of personality, not only as strategic, but also as part of professional competence. You need to choose the educational material, that does not contradict interests, motives and needs of vocational students, because only conscious understanding of the role of physical training can promote the absorption of values [1].

Y. Kozeruk (2015) in the research process has established that use a variety of didactic conditions of activities can get the training effect at a lower cost of adaptation, rather reach a higher level of quality and reliability of motional skill. In determining the effectiveness of this forming technology of pupils motional skills from vocational schools, it was found the improvement in physical condition and motional readiness [6; 7].

If during lessons on physical education find appropriate teaching methods which would promote the formation of students' motivation to physical training and sports, it will give an opportunity to develop the necessary physical qualities and motional skills to future specialists to enhance special working capacity, the prevention of occupational diseases throughout his career at a high level.

Satisfaction with the results of work occurs not only on financial compensation, but also on the feeling, even subconscious physical satisfaction of its availability. Otherwise, work activity is becomes exhausting and a man refuses it, in spite of its financial attractiveness. Many students of vocational schools when choosing future profession pay attention to this side - a decent pay for their work, but do not imagine the physical and physiological stress, that await them in their future careers. In modern methodological developments for PTEI, designed by various authors, it emphasizes the need to include them in training exercises similar in structure and muscle tension to professional [1; 4; 7].

In other words process of physical education of young workers should wear profiling or professional – applied character [4; 5].

In the same sources (V. Maxymovych, S. Prysyazhnyuk, R. Rajewskiyj, V. Romanenko, B. Semeniv) it is noted basic characteristics of different groups of professional activity and requirements to physiological and physical qualities of workers, that provide productive work with the main tasks of the work programs with profiling of physical training to prepare professionals: operators, machinists, drivers, conveyorers, electricians, electro-gas welders, food industry workers, production of livestock products, professions working with high precision of work movements, construction workers, mining workers, pulp and paper production, metallurgy, waterway transport [9; 13; 14].

In the corresponding programs on PPFP are defined their task, means and sports for sectional [2; 4; 8]. Thus the development of operational programs of PPFP rely on teachers of physical education, taking into account the level of material and technical support and conditions of physical education process in each professional and educational institution [9; 10; 13].

Group of scientists from the physical education V. Plisko, Y. Kozeruk, O. Bulanov (2013) have found that the current content and organization of physical education in the PTE system, despite significant achievements, still can not satisfy the growing demands to physical preparedness of future workers. Improving the efficiency of the production process also causes the necessity reorganization of physical education and strengthen the role and PPFP place [3].

A result of analysis of scientific and technical literature and practical classes on physical education of section TFG, it was found that the low efficiency of physical training considering the chosen specialty is caused by low motivation and interest of students of professional and technical educational institutions to the lessons of this type of physical training. Despite significant advances in the section profiling physical preparation of school youth, scientists on physical education do not consider motivational peculiarities of PTEI students to physical training and sports considering the chosen specialty.

All this testifies to our further research.

To set by an experimental way the effectiveness of the adversarial method with the help of conducting classes on profile of physical training of students of vocational schools for the development of physical qualities, motional abilities and skills considering the chosen specialty.

Accordance with the purpose of formulated objectives:

1. To carry out theoretical analysis of scientific and pedagogical sources of problems the profile of physical training of students of vocational schools.

2. To investigate the physical qualities that is the most necessary to future professionals of different specialties and respond to the age development.

3. To justify and experimentally verify the effectiveness of the adversarial method use of conducting classes on the profile of physical training of students of vocational schools for the formation of motivational abilities in learning.

Materials and methods of the study. Research methods caused by the goal, the tasks and the actual material:

– theoretical: analysis of teaching and normative documentation, psychological, pedagogical and methodological literature in order to determine status and prospects of research problem; comparison of different views of scientists on investigated problem for determining the research directions and conceptual-categorical apparatus;

– empirical: pedagogical monitoring of educational process, teacher questionnaires and tests for the diagnosis of physical fitness of students of vocational schools; pedagogical experiment (ascertain, forming) in order to obtain the information necessary for develop the methods of motivation formation of vocational students to physical training for sports considering the chosen profession, physical skills and motion abilities in the system of vocational students physical training, and also for check its effectiveness and improving the health of students, increasing special efficiency, improvement of success in the learning process, prophylaxis and prevention of occupational diseases.

– methods of statistical data used for the study of experimental research results for the purpose of qualitative and quantitative analysis and the validity of the findings.

The chosen by us and applied research methods are generally accepted in the physical education of pedagogy.

The research was conducted at the Lviv Polytechnic higher vocational schools, together with the Department of physical education of sport and health of Lviv National University of Veterinary Medicine and Biotechnologies named after S. Z. Gzhytskyj. 77 students, 22 teachers of general subjects, 18 teachers of special subjects of technology, 24 masters of industrial training took the participation in the investigation.

Discusion and research results. According to the survey as an open questioning of teachers of general and special subjects, masters of industrial training in September 2015, determined by a group of students on specialties which is the most necessary to use physical skills and motion skills.

Masters of industrial training and teachers of special subjects in the statement table were proposed to put on the «5-point» scale of assessment to power quality, which are necessarily applied in the mentioned specialties.

Survey results after the statistical analysis are outlined in presented below (table 1).

Table 1

Middle-assessment Survey Group of Specialists-teachers of Industrial Training of Lviv Higher Polytechnic Vocational School

N	Specialties	Total Points	Power endurance Dynamic	Absolute Power	Power endurance Static
1	repairman of cars, electric gas welder	13,7	4,6	4,4	4,7
2	electrician for repair and maintenance of electrical equipment	10,0	3,2	3,0	3,8
3	house painter, fitter gypsum structures, plasterer	14,5	4,9	4,8	4,8
4	Carpenter-building, parquet floor layer	14,0	4,8	4,7	4,5

Based on the survey results for the experiment 3 groups of students of LHPPC were selected, who are studying in the following specialties: car repairman, electro-gas welder, house painter – fitter of gypsum constructions, plasterer, carpenter and construction parquet floor layer and the control group. Total participated in the experiment were 77 students, young men aged 16–17 years. The control group consisted of 17 students, who have studied in specialty electrician for repair and maintenance of electrical equipment.

1. Mechanic on car repairs, electricity gas welder – 13.7 points.
2. Painter - fitter of gypsum structures, plasterer – 14.5 points.
3. Carpenter and construction, parquet floor layer – 14.0 points.

Control:

4. Electrician for repair and maintenance of electrical equipment-10.0 points.

Analyzing the results of the survey, we find that specialists for professional activities in selected groups for the experiment consider the need for an increased level of dynamic power and static and endurance in these industrial occupations in these productive occupations, absolute power holds in all groups last place. Experimental research lasted for 2015–2016 academic year with the second year students of Lviv Polytechnic Higher Vocational Lyceum for the aforementioned specialties.

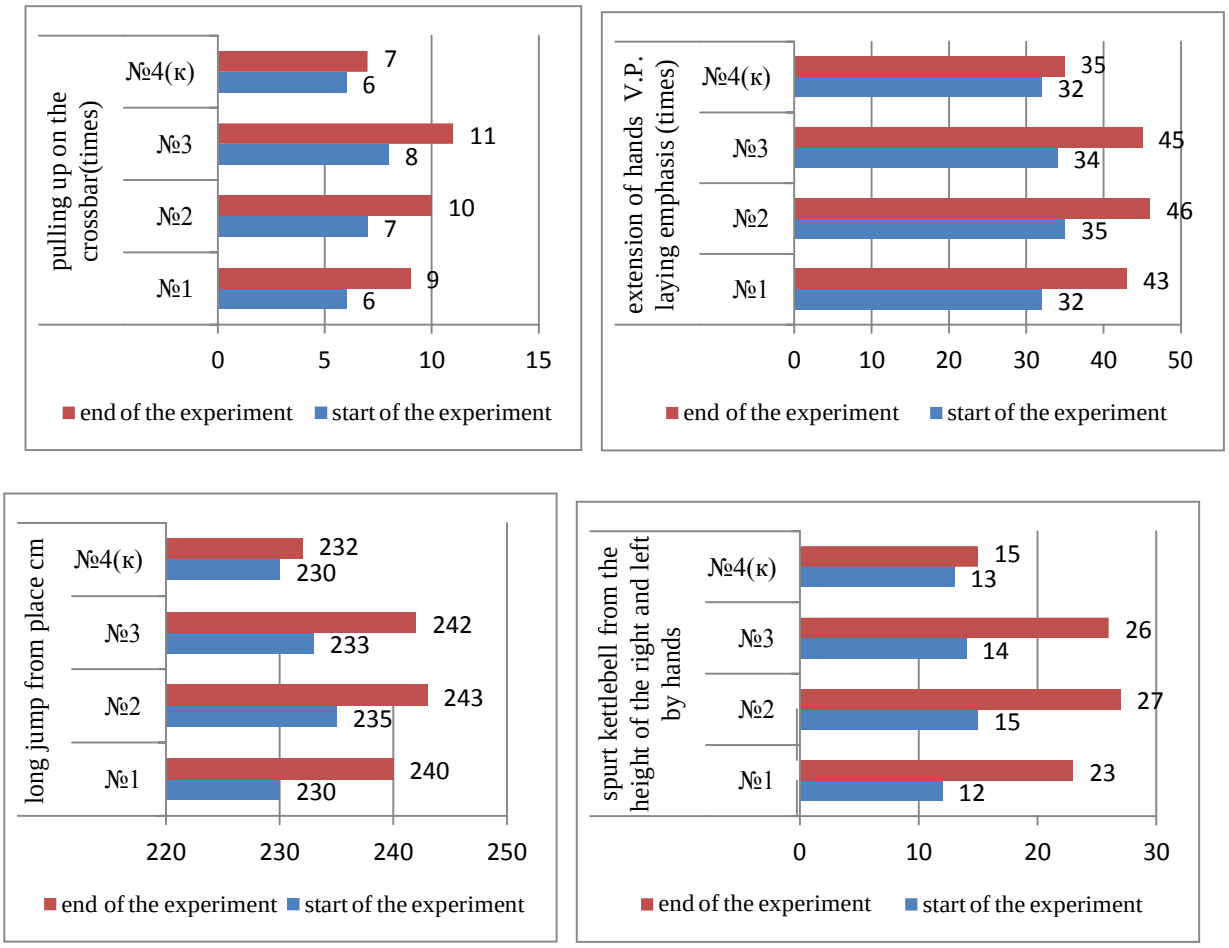

Fig. 1. *Dynamics of Physical Training of Students at the time of LHPPC Pedagogical Experiment*

During the course of pedagogical experiment students in the control group were engaged in the traditional for all vocational schools of Ukraine «Curriculum» in physical education. Students in the experimental group at the beginning of the experiment reported that it will be held the competition championship group, championship course, championship college, by type of physical testing, describing strength physical qualities inherent to members of professions defined by open questioning. Participants in the experiment were reported that the triple of winners for each type of testing will be awarded with diplomas and will represent their group in the championship course, college.

Summarizing the results of pedagogical observations you can note conscientious attitude of boys from the experimental groups to strength training, strict exercise, demanding some willpower, increase their satisfaction results, not only their physical growth opportunities but also increase the level of success of the special and general subjects.

Table 2

Success, on Average, with Special-subjects of Students of Lviv Polytechnic Higher Vocational School for the Period of Pedagogical Experiment (by 12th Scale)

№ of Order	GROUPS	The Success (in Points)		Excellent., Success	Differences of Success
		Beginning of Experim.	The End of Experim.	Points	%
1	Control group: electrician	7,21	7,69	0,48	6,2
2	mechanics, electric welder (1 exp.)	6,05	7,35	1,3	17,6
3	house painter, plasterer, tiler (2exp.).	5,78	8,04	2,26	28,1
4	carpenter-builder parquet floor layer (3 exp.)	5,65	8,01	2,36	29,4

Table 3

Success, on Average, on General Subjects of Students of Lviv Polytechnic Higher Vocational School For the Period of Pedagogical Experiment (by 12th Scale)

№ of Order	GROUPS	The Success (in Points)		Differences of Success	Differences of Success
		Beginning of Experim.	The End of Experim.	Points	%
1	Control group: electrician	6,17	6,97	0,8	11,4
2	mechanics, electric welder	5,67	6,81	1,14	16,7
3	house painter, plasterer, tiler (2exp).	5,12	7,36	2,24	30,4
4	carpenter-builder parquet floor layer (3 exp.)	5,03	6,74	1,71	25,3

Conclusions and prospects for further research.

1. Consciously or subconsciously, students from the experimental groups sought to increase their physical quality and to be one of three best students in one or more types of testing and to represent their group at higher competitions.

2. The use of the competitive learning method during physical education classes of students LHPPC made it possible to motivate active physical training and sports, to improve the success of both general subjects and on subjects of special training. As a result of the experiment it can be argued that the use of competitive methods of teaching during physical education classes improves overall ability to work as a future employee and special.

3. In considering the magnitude performance testing of physical qualities of students LHPPC during experiment, their dynamics and percentages of medium- group indices of experimental and control group we can note a significant increase in power quality of students of experimental groups over the control students.

Джерела та література

1. Жилін Є. І. Стан і перспективи розвитку фізичного виховання в професійно-технічних навчальних закладах / Є. І. Жилін, Боднар Т. С. // Науковий часопис НПУ ім. М.П. Драгоманова. – серія № 15: «Науково-педагогічні проблеми фізичної культури». – 2015. – № 3(56). – С. 154–158.
2. Максимович В. А. Методическое руководство по применению психофизиологических методов проф. отбора и адаптации операторов / В. А. Максимович. – Горловка, 1982. – 24 с.
3. Пліско В. І. Організація процесу фізичної підготовки в закладах професійно-технічної освіти / В. І. Пліско, Ю. В. Козерук, О. М. Буланов // Вісник ЧНПУ імені Т.Г. Шевченка. – 2013. – № 91. – С. 200–202.
4. Присяжнюк С. І. Фізичне виховання : навч. посіб. / С. І. Присяжнюк. – Київ : Центр учб. літ., 2008. – 504 с.
5. Коваль В. В. Професійно-прикладна фізична підготовка учнів профтехучилищ: історичний досвід і сучасні умови використання / В. В. Коваль, В. В. Коваль // Наукові записки РДГУ. – 2016. – №13(56). – С. 149–152.
6. Козерук Ю. В. Визначення ефективності педагогічної технології формування рухових навичок учениць професійно-технічних навчальних закладів / Ю. В. Козерук // Вісник Чернігівського національного педагогічного університету імені Т. Г. Шевченка. Серія : Педагогічні науки. – 2015. – № 125. – С. 162–165.
7. Козерук Ю. В. Визначення показників рухової підготовленості учениць професійно-технічних навчальних закладів / Ю. В. Козерук // Фізичне виховання, спорт і культура здоров'я у сучасному суспільстві. – 2013. – № 1. – С. 166–170.
8. Раєвський Р. Т. Професійно орієнтоване фізичне виховання студентів енергетичних спеціальностей / Р. Т. Раєвський, С. В. Халайджі // Теорія та методика фізичного виховання. – 2007. – № 3. – С. 36–37.
9. Романенко В. А. Диагностика двигательных способностей человека / В. А. Романенко. – Донецк: ДНУ, 2005. – 72 с.
10. Семенів Б. С. Профілююча фізична підготовка студентів : навч. посіб. / Б. С. Семенів, І. Д. Якимишин. – Львів, 2016. – 138 с.
11. Семенів Б. С. Обґрунтування змісту професійно орієнтованої фізичної підготовки студентів факультету харчових технологій / Б. С. Семенів // Фізичне виховання, спорт і культура здоров'я у сучасному суспільстві. – 2012. – № 2 (18). – С. 191–194.
12. Семенів Б. С. Забезпечення термінового ефекту підвищення працездатності студентів спеціальностей «Харчові технології» / Б. С. Семенів // Фізичне виховання, спорт і культура здоров'я у сучасному суспільстві. – 2013. – № 1(21). – С. 233–237.
13. Семенів Б. С. Професійно-орієнтована фізична підготовка студентів : навч.-метод. посіб. / Б. С. Семенів, Г. Г. Лапшина. – Львів, 2012. – 144 с.

14. Присяжнюк С. І. Фізичне виховання : навч. посіб. / С. І. Присяжнюк, В. П. Краснов, М. О. Третьяков [та ін.]. – Київ : Центр учб. літ., 2007. – 192 с.
15. Ahmetov I. I. PPARA gene variation and physical performance in Russian athletes / I. I. Ahmetov, I. A. Mozhayskaya, D. M. Flavell [et al.] // Eur J Appl Physiol. 2006. V.97(1). P. 103–108.
16. Balsevich V. K. Methodological Bases of Human Ontokineziology / V. K. Balsevich // The $6^{1,1}$ Annual Congress of the European College of Sport Science. Jyvaskyla. – 2002. – P. 178.
17. Bulicz E. Zdrowie czlowieka i jego diagnostyka. Efekty zdrowotne actywnosci ruchowej / E. Bulicz, I. Murawow. – Radom : Politechnica R., 2003. – 533 s.
18. Lanka J. Shot Putting. In Zatsiorsky V. M. (ed) Biomechanics in Sport: Performance Enhancement and Injury Prevention. Blackwell Science / J. Lanka. – LTD. Oxford, 2000. – P. 435–457.
19. Hopper C. Physical activity and nutrition for health / C. Hopper, B. Fisher, K. D. Munoz // Champaign: Human Kinetics. – 2008. – 374 p. + CD. – (World of wellness health education series).
20. Wilmore J. H. Physiology of sport and exercise / J. H. Wilmore, D. L. Costiili // Champaign, Illinois: Human Kinetics. – 2004. – 726 p.
21. Hardman K. Contemporari issues in phisical education / K. Hardman, K. Green. – 2011. – 300 p.
22. Visek A. J. Athletic identity and aggressiveness: A cross-cultural analysis of the athletic identity maintenance model / A. J. Visek, J. C. Watson, J. R. Hurst [et al.] // International Journal of Sport and Exercise Psychology. – 2010. – Vol. 8(2). – P. 99–116. doi:10.1080/1612 197X.2010.9671936

References

1. Zhylin, Ye. I. & Bodnar, T. S. (2015). Stan i perspektyvy rozvytku fizychnoho vykhovannia v profesiino-tekhnichnykh navchalnykh zakladakh [Status and prospects of development of physical education in vocational-technical schools]. Naukovyi chasopys NPU im. M.P. Drahomanova. seriia №15 «Naukovo-pedahohichni problemy fizychnoi kultury», no. 3(56), 154–158.
2. Maksimovich, V. A. (1982). Metodicheskoe rukovodstvo po primeneniiu psikhofiziolohicheskikh metodov prof. otbora i adaptatsii operatorov [Methodical guidance on the application of psychophysiological methods prof. selection and adaptation of operators]. Horlovka, 24.
3. Plisko, V. I., Kozeruk, Yu. V. & Bulanov, O. M. (2013). Orhanizatsiia protsesu fizychnoi pidhotovky v zakladakh profesiino-tekhnichnoi osvity [Physical training at professional-technical educational establishments]. Visnyk ChNPU imeni T.H. Shevchenka, no. 91, 200–202.
4. Prysiazhniuk, S. I. (2008). Fizychne vykhovannia: navch. Posibnyk [Physical education]. K.: Tsentr uchebnoi lyteratury, 504.
5. Koval, V. V., Koval, V. V. (2016). Profesiino-prykladna fizychna pidhotovka uchniv proftekhuchylyshch: istorychnyi dosvid i suchasni umovy vykorystannia [Professionallyapplied physical training of the vocational schools students: historical experience and modern terms of usage]. Naukovi zapysky RDHU, no. 13(56), 149–152.
6. Kozeruk, Yu. V. (2015). Vyznachennia efektyvnosti pedahohichnoi tekhnolohii formuvannia rukhovykh navychok uchenyts profesiino-tekhnichnykh navchalnykh zakladiv [Determining the effectiveness of educational technology formation of motor skills of pupils' vocational education institutions]. Visnyk Chernihivskoho natsionalnoho pedahohichnoho universytetu imeni T.H. Shevchenka. Seriia: Pedahohichni nauky, no. 125, 162–165.
7. Kozeruk, Yu. V. (2013). Vyznachennia pokaznykiv rukhovoi pidhotovlenosti uchenyts profesiino-tekhnichnykh navchalnykh zakladiv [Defining of motor preparation indices of school-girls of vocational schools]. Fizychne vykhovannia, sport i kultura zdorovia u suchasnomu suspilstvi, no. 1, 166–170.
8. Raievskyi, R. T. & Khalaidzhi, S. V. (2007). Profesiino oriientovane fizychne vykhovannia studentiv enerhetychnykh spetsialnostei [Professionally oriented physical education of students of power specialties]. Teoriia ta metodyka fizychnoho vykhovannia, no. 3, 36–37.
9. Romanenko, V. A. (2005). Diahnostika dvihatelnykh sposobnostei cheloveka [Diagnosis of motor abilities]. Donetsk: DNU, 72.
10. Semeniv, B. S. & Yakymyshyn, I. D. (2016) Profiliuiucha fizychna pidhotovka studentiv navch. posib. [Profiling physical preparation of students]. Lviv, 138.
11. Semeniv, B. S. (2012). Obgruntuvannia zmistu profesiino oriientovanoi fizychnoi pidhotovky studentiv fakultetu kharchovykh tekhnolohii [Grounding of the grounding of professionally oriented physical preparation of students from the faculty of food technologies]. Fizychne vykhovannia, sport i kultura zdorovia u suchasnomu suspilstvi, no. 2 (18), 191–194.
12. Semeniv, B. S. (2013). Zabezpechennia terminovoho efektu pidvyshchennia pratsezdatnosti studentiv spetsialnostei «Kharchovi tekhnolohii». Fizychne vykhovannia, sport i kultura zdorovia u suchasnomu suspilstvi, no. 1(21), 233–237.
13. Semeniv, B. S. & Lapshyna, H. H. (2012). Profesiino - oriientovana fizychna pidhotovka studentiv: navch.-metod. posib. [Vocationally-orientated physical training of students] Lviv, 144.
14. Prysiazhniuk, S. I., Krasnov, V. P., Tretiakov, M. O., Raievskyi, R. T., Kiiko, V. I., & Panchenko, F. V. (2007). Fizychne vykhovannia : navchalnyi posibnyk [Physical education]. K.: Tsentr uchbovoi literatury, 192.

15. Ahmetov, I. I., Mozhayskaya, I. A., Flavell, D.M., et al. (2006). PPARA gene variation and physical performance in Russian athletes. Eur J Appl Physiol., v.97(1), 103–108.
16. Balsevich, V. K. (2002). Methodological bases of human ontokineziology. The $6^{1,1}$ Annual Congress of the European College of Sport Science. Jyvaskyla, 178.
17. Bulicz, E. & Murawow, I. Zdrowie czlowieka i jego diagnostyka. Efekty zdrowotne actywnosci ruchowej. Radom: Politechnica R., 533.
18. Lanka, J. Shot Putting. In Zatsiorsky V.M. (ed) (2000). Biomechanics in sport: Performance Enhancement and Injury Prevention. Blackwell Science. LTD. Oxford, 435–457.
19. Hopper, C., Fisher, B. & Munoz, K.,D. (2008). Physical activity and nutrition for health. Champaign: Human Kinetics, 374. + CD. (World of wellness health education series).
20. Wilmore, J. H. & Costiili, D. L. (2004). Physiology of sport and exercise. Champaign, Illinois: Human Kinetics, 726.
21. Hardman, K. & Green, K. (2011). Contemporari issues in phisical education, 300.
22. Visek, A. J., Watson, J.C., Hurst, J. R., Maxwell, J. P. & Harris, B. S. (2010). Athletic identity and aggressiveness: A cross-cultural analysis of the athletic identity maintenance model. International Journal of Sport and Exercise Psychology, vol.8(2), 99–116. doi:10.1080/1612 197X.2010.9671936

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