

CHAPTER «PHYSICAL EDUCATION AND SPORT»

STRUCTURE AND LEVEL OF PROFESSIONAL AND APPLIED AWARENESS OF STUDENTS STUDYING ON AGRICULTURAL SPECIALITIES

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Abstract. In the modern educational space, professional physical training is interpreted as a necessary prerequisite and at the same time as a means of FC forming of a future specialist in a particular industry. Thus, the latest stage of physical education development is characterized by the integration of socio-philosophical, medical-biological and psychological-pedagogical areas of specialists' professional and applied physical training, substantiated in the previous years' research. In this context, students' professional and applied physical training is considered by modern scientists as a process of professional physical culture formation of the future specialist in the mastering course of educational, upbringing and developmental values. This is evidenced by numerous foreign and domestic scientists' studies on students' PFP of various specialties and specializations.

The today realities, the intensive renewal of the socio-economic, scientific and technical sphere and the society spiritual life causes an increase in the requirements for the student youth capacity, who are called taking an active part in this process initiating and organizing. Modern conditions of higher education (hereinafter higher educational institutions) of Ukraine are characterized by intensification and professional orientation, the process of reforming higher education, in accordance with the European educational space requirements, aimed primarily at improving the educational quality of

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future professionals capable for hard long-term work. One of the essential integration attributes into the European educational space is the renewal of the educational content.

Recently, scientists have been intensively developing methods for quantitative and qualitative assessment of the highest subsystem of the human personality structure, its worldviews of socio-psychological orientation. This area is very important for the selection of training tools and methods of future specialists of the agro-industrial complex and vocational training as its component. In this regard, research in this area is of particular importance and needs further development.

The structure of students professionally applied physical training of higher educational institutions is considered in the presented article. The professional and applied awareness level of student youth of agricultural specialties is investigated. It is established that the theoretical component of professional and applied physical training significantly influences the system formation of students' theoretical and practical knowledge, necessary for future specialists of the agro-industrial complex in professional activity and life.

The study of the professional and applied physical awareness level was attended by students aged 18-20 years I-III courses of agricultural specialties of Sumy National Agrarian University (n = 652), Kharkiv Petro Vasylenko National Technical University of Agriculture (n = 431) and Hlukhiv Agrotechnical Institute named after S.A. Kovpak (n = 108) in the total number of 1201 people.

The questionnaire contained five questions blocks grouped by the common theme.

The personal data analysis allowed to state the insufficient knowledge level of future specialists of the agro-industrial complex in the physical culture, sports, healthy lifestyle and professional-applied physical training sphere.

According to the quantitative assessments results of the answers to the five questions blocks, the authors determined the level below average in 6.4% of students, characterized by meaningful answers to the two questions blocks, or answers with shortcomings and errors to 3-4 questions blocks out of five. 93.6% of respondents answered one question of the five blocks, or could not formulate definitions and give clear meaningful answers to most questions of each block. Their professional and applied physical awareness level is defined as low.

1. Introduction

At the present stage of its development, the industry of our country feels the need for educated, highly qualified professionals with fundamental knowledge, professional skills and abilities, experience in creatively solving new pressing problems and the ability to realize skills in various fields of professional activity. In this context, professional physical training may be interpreted as a necessary prerequisite and at the same time as a means of forming the physical culture of future agro-industrial complex specialist. Thus, the newest phase of physical education development is characterized by the integration of socio-philosophical, medical-biological and psychological-pedagogical areas of professional and applied physical training of specialists. All these areas were substantiated in the research of previous years. Modern scientists considers student's professional and applied physical training as a formation process of professional physical culture of the future specialist in a process of learning a set of educational, upbringing and developmental values. This is confirmed by numerous studies of foreign and domestic scientists on vocational training of students studying on various specialties and specializations.

One of the main components in Ukraine economy is the agro-industrial complex, which combines the production of agricultural products, agricultural processing and logistics support services [26].

However, the agricultural industry of our country acutely needs qualified specialists. One of the main reasons for this problem is the low level of professional and applied physical preparedness of graduates of agricultural higher educational institutions [25].

According to experts, a significant number of modern graduates of higher education institutions are physically unable to meet the modern requirements of the labor market [23–24]. In this context, the physical education system, and especially its professional and applied component, is considered to be essential for future specialists' training in higher education.

2. The main tasks of physical education

Consider the definition of the notion of “physical education system”.

The physical education system is a historically determined type of physical education social practice including teleological, scientific-methodical, program-normative and organizational elements (bases), that provide physical education of citizens.

Therefore, physical education is an integral part the overall education of students in Ukraine. The goal of physical education in higher education establishments of our country is assisting in the preparation of comprehensively developed and highly qualified specialists.

In view of the above, physical education is faced with the following tasks:

- strengthening the health and ensuring high mental and physical productivity based on ensuring the full development of physical abilities;
- mastering special knowledge;
- creating the need of systematic physical exercises using of various rational forms;
- ensuring a sufficient level of general physical fitness in accordance with the norms and standards that meet the mandatory program of the higher education establishments;
- achieving the appropriate level of necessary physical preparedness in accordance with the requirements of the chosen profession;
- mastering the organizational foundations and methodology for applying of the most effective types of motor activity;
- basic knowledge of rehabilitation methods and physical improvement using traditional and innovative means and methods of physical culture;
- systematic physical training aiming at health improvement or athletic performance;
- mastering organizational skills and abilities to carry out independent forms of physical education [14].

Preserving and strengthening the student youth's health, creating the need for physical improvement and a healthy lifestyle is one of the main tasks of physical education. The principle of organic connection of physical education to the practice of labor activity is most specifically embodied in professional and applied physical training.

As a general, the tasks of professionally-oriented physical training can be formulated as follows:

- purposeful development of physical abilities which are specific to the chosen professional activity;
- development of mental qualities, which are important for a certain professional activity (strong will, operational thinking, attention, emotional stability, speed of perception, etc.);

- formation and improvement of professional and applied skills and abilities related to special external conditions of future work, sensory skills;
- increasing the functional resistance of the organism to the adverse effects of factors of specific working conditions (hypokinesia, high and low temperature and ambient temperature fluctuations, neuropathia, the damage from the toxic substances, etc.);
- acquisition of knowledge which are necessary for future specialists to successful master the practical section of Professional and Applied Physical Training (hereinafter the “PAPT”), and application of the acquired abilities, skills and qualities in the further professional activity.

Tasks listed above should be specified taking into account features of the chosen profession. The implementation of the tasks of PAPT should provide the necessary level of professional and applied physical preparedness for the chosen profession.

Physical education in the system of higher education should be based on new teaching technologies, which will ensure the professional physical and psychophysiological readiness of students to perform professional duties.

3. Peculiarities of professional and applied physical training of future agro-industrial complex specialist

To ensure optimal planning of physical education classes for students studying on agricultural specialities, it is necessary to take into account the requirements for their future activities, because, as V. Levkiv and O. Ostapova emphasize, “the content of professional and applied physical training of students should reflect not a strategic directions, organization and learning environment of students in higher education establishments, but rather features of students’ future professional activity « [10; 18].

The scientist S. Zaskalieta believes the requirements for the system of professional training of agricultural sector specialists to be greatly influenced by the factors that govern the development of agriculture industry and its sectors. Among others, the scientist singles out the following [9]:

- world trade rules;
- development of European Union agricultural policy;
- productivity development and technical development;
- socio-economic expectations of farms;
- environmental policy development.

S. Zaskalieta believes “ensuring the effective functioning of the agricultural sector of the economy” [9, p. 28–29] to be the main task facing the system of professional training of agricultural sector specialists, so, as the researcher notes, there is a need to train competent professionals who can act in mixed social economic environment. According to the researcher, this factor has resulted in the rapid quantitative growth of higher education establishments and the need to expand and reform the system of professional training of agricultural sector specialists. However, the new socio-economic conditions are making adjustments. There is an urgent need to increase the defence capacity of student youth involved in training in all areas of activity in Ukraine.

At the same time, Ye. Prasolov, V. Dudnyk and S. Bielovol note that the professional training of future agro-industrial complex specialist should take into account the innovative economy conditions, because “higher agricultural education faces the task of significantly improving the quality of future professionals’ training, in other words, it must to prepare young people for active life in a democratic society, to form the basis for their professional career and individual development, to intensify the mobility of students [21].

Scientist Yu. Ovsienko [17] notes that most students studying on agricultural specialities trust the advice of parents in choosing profession, without detailed information about further professional activity’s features. At the same time, the researcher emphasizes that for the agricultural higher educational establishments the issue of implementation of modern training methods and forms is relevant and complex, as this industry is in a state of search and reform.

S. Amelina [1] in her dissertation research has proved the fact that the culture of professional communication is one of the most important components of the agrarian specialists’ professional culture, which ensures their competitiveness in the current and future labor market, allows to solve production problems, drawing on ability to communicate and collaborate with different people.

Researcher O. Ilkiv [12] focuses on the formation of information culture of students studying on agricultural specialities. The researcher considers the widespread use of computer technology in the pedagogical process of higher education institutions to be an important prerequisite for an

innovative approach to the professional activities of future agro-industrial complex specialist.

Thus, according to the authors, it reinforces the need to review the process of organizing the physical education of students to prevent the consequences of long-term work on the computer.

V. Molochenko notes that it is important for training of future agro-industrial complex specialists to form readiness to work in a team, to partner in professional activities, which has a collective character and can be productive only if the different workers will cooperate [4, p. 16].

In this regard, the development of readiness of students studying on agricultural specialities to professionally oriented partnership, as the researcher emphasizes, should become one of the priority tasks of their vocational training. Using of cooperative forms of educational activities during classes, according to the scientist, can contribute to the formation of students' professional activities skills, which are important for future of partnership:

- ability to organize the functioning of the group: unification, target-setting, establishment of norms of interaction, compliance with the sequence of actions;

- ability to effectively perform group tasks: raising issues, division of responsibilities, action planning, delegation of authority, performing their part of the work, managing joint work, stimulation for other group members, managing or subordinating depending on the task; expression of support, constructive criticism;

- ability to effectively exchange information: establishing a constructive dialogue, expressing their views to partners during interaction, seeking clarification, clarification and generalization of information, maintaining group memory, checking the understanding, reasoned persuasion of colleagues in the correctness of the proposed solutions;

- ability to regulate interpersonal relationships: tolerant attitude towards partners, acknowledging their mistakes, acceptance of the views of others, control of personal emotions, helping colleagues, managing their emotions, prevention and constructive conflict resolution;

- reflective skills: group analysis and evaluation of the achievement of goals, identifying problems of group activities, correction of ineffective methods of interaction, stimulating the activity of individual members and the group as a whole [5–8; 16].

In the scientific researches of Z. Burkovska attention is drawn to the fact that the acquired professional values play a vital role in the activities of the agro-industrial complex specialist. The researcher draws attention to the fact that a graduate of a higher agricultural education institution must know the history and culture of their people, the history of the world and Ukrainian economy, history of agriculture industry, rules of the market economy and mechanisms for their implementation, the history of world and domestic political thought, the contribution of Ukrainian farmers to world agricultural science and practice, fundamentals of the Ukrainian legislation on agricultural entrepreneurship and the environment, legal and economic aspects of agricultural enterprises, names of Ukrainian agrarian scientists and practitioners. They must be responsible, treat their native land with love, adhere to an honest partnership in business, be fluent in the state language, take an active role in public life and be a patriot, have the skills of organizational work in an agricultural enterprise [3].

As can be seen, the physical education system plays a leading role in maintaining health, education of professionally important physical qualities and skills of future specialists. Therefore, it is important for agricultural higher educational institutions to find ways to solve a number of problems, which will determine the training level of future agro-industrial complex specialist.

The professional orientation of agricultural higher education results in a need to pay special attention to the development of future specialist's professional qualities and professional education in the process of forming personality [22].

The physical education curriculum emphasizes that one of the main criteria for the effectiveness of graduates physical education is knowledge of the basics of professional and applied physical training in the chosen specialties and the ability to apply them in practice [2].

Students' professional training should be aimed primarily at mastering a certain amount of theoretical knowledge, practical skills, maintaining the necessary state of health, as well as at the purposeful development of professional performance associated with the sufficient development of physical and psychophysiological qualities [27]. Scientific works of V. Ilinich, Yu. Pozdniakova, M. Khoma, N. Storchevoi were dedicated to the peculiarities of professional and applied physical training of agrarian

higher educational establishments students. In their scientific works, N. Bezghodova, N. Bibik, V. Vvedenskyi, T. Horokhovska, M. Lisovyi, V. Momot, A. Khutorskyi deremined the criteria and analyzed the formation levels of indicators of professional and applied physical training of higher educational institutions students.

Ya. Zorii interprets professional and applied physical training as a complex process of purposeful pedagogical influence on physical, mental, psychophysiological and morphofunctional indicators of organism development, which makes professional knowledge and skills of future specialists turn into parameters of their readiness to perform professional duties [11].

B. Semeniv distinguishes two blocks of content of professionally oriented physical training of Food Technology Faculty students – physical education (theoretical block) and professional and applied physical training (practical block) [27].

M. Bozhyk considers the level of teachers' professional and applied methodical readiness to be an efficiency criterion of the methodical component of their professional and applied physical training system [2].

R. T. Raievskyi considers methodical, practical and theoretical training to be a structural components of PAPT of Electrical Power Faculties students. He highlights the following tasks of theoretical training:

- to motivate students to implement PAPT during their studies at the university and in extracurricular activities;
- further mastering the system of knowledge necessary for the practical implementation of individual PAPT for selected professional activity in the energy sector at the stage of university education [24].

Professionally oriented direction of physical education creates the prerequisites for successful mastering the professional skills and practical knowledge, achieving the appropriate level of physical and functional preparedness of the student, helps to reduce the period of adaptation to working conditions and extends the professional longevity of the future agro-industrial complex specialist [20]. Scientists note that using expert's basic professional model as a foundation, the professional and applied physical training program of the future specialist is developed which includes means and methods of teaching, estimation methods of physical, psychological and psychophysiological qualities of the person, professional reliability parameters, physical health and the forecast of professional longevity [15].

In addition to development level of professionally important physical qualities and physical health, the cognitive component of professional and applied physical training plays a vital role for specialist training, that provides the formation of a system of general theoretical, methodological and professional and applied knowledge for further use in professional activities and everyday life. Despite the significant amount of modern research on professional and applied physical training of higher educational institutions students [13; 19; 27–29], it should be stated that in the scientific literature there are no any works presenting an level analysis of professional and applied awareness of Ukrainian students studying on agricultural specialities.

4. The organization and methods of research

The purpose of this research was to determine the level of professional and applied awareness of students studying on agricultural specialities.

Research methods: theoretical analysis of literature sources, survey, mathematical statistics methods.

The study involved the 1st – 3rd year students studying on agricultural specialities of Sumy National Agrarian University (652 students), Kharkiv National Technical University of Agriculture named after Petro Vasylenko (431 students) and Hlukhiv agrotechnical institute named after S. Kovpak (108 students), with total number of 1201 students.

The authors conducted a survey to determine the level of professional and applied awareness of agrarian students. The questionnaire contained 5 blocks of questions grouped according to the following characteristics:

1. General-theoretical – testing the level of knowledge on physical qualities and concepts of “physical culture”, “physical education”, knowledge of self-control methods.

2. Methodical – testing the level of knowledge on the methods of physical qualities development.

3. Axiological – testing the level of knowledge on recreational activities and individual exercise; conditions and reasons motivating motor activity.

4. Prognostic – testing the level of knowledge on the importance of physical education for future self-realization of the specialist in the chosen specialty, students’ ideas of ways to optimize the system of physical education in agrarian higher education institution.

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5. Professional-applied – testing the level of knowledge on the concept of “professional and applied physical training”, professionally important physical qualities, basic safety rules and medical first aid in the chosen professional activity.

The survey results were processed based on quantitative and qualitative assessments of the answers. Quantitative assessment involves evaluating the questionnaire responses on a scale. The student’s knowledge levels tested in each block were evaluated on a scale of 0 to 2. The score of 0 points indicates to an unsatisfactory level and means the students answered “I do not know” and “have no idea” to the questions of this block; the score of 1 point corresponds to a satisfactory level and student was given a score of 1 for incomplete or vaguely formulated answers, in other words, it means the student answered “I do not know” and “I have no idea” to more than half of the questions of the block; the score of 2 points indicates to a sufficient level and such score was given for meaningful answers to all questions in one block.

The level of professional and applied awareness of future agro-industrial complex specialist was evaluated by the sum of the number of points obtained in each block of questions. The obtained number of points is correlated with a qualitative assessment, which reflects the appropriate level of professional and applied awareness and assumes the certain level of theoretical knowledge and ideas (Table 1).

Table 1

Quantitative and qualitative assessment of professional and applied awareness level of students studying on agricultural specialities

The number of points	Knowledge level	Professional and applied awareness level
9-10	High level of theoretical knowledge, meaningful answers to all questions of each of the five blocks	high level
7-8	Sufficient level of theoretical knowledge, meaningful answers to the questions of the four blocks	above average
5-6	Average level of theoretical knowledge, meaningful answers to the questions of the three blocks	average
3-4	Satisfactory level of theoretical knowledge, meaningful answers to the questions of the two blocks	below average
0-2	Unsatisfactory level of theoretical knowledge, difficulties with answering questions of at least 4 blocks	low level

5. Level of general theoretical knowledge

The analysis of the responses to the survey questionnaire allows to make a conclusion about future agrarians' awareness level regarding methods of self-control in physical education. Responding to the questions, 36.8% of students had no difficulties, 13.6% of them were able to name two or more methods. Methods most often mentioned were as follows: measurement of heart rate, blood pressure, body temperature. It should be noted that 22.7% of respondents could not measure their own heart rate.

46.8% of surveyed students indicated that they have bad habits. It should be noted that more than half of them – 73.4% – were young men. 55.6% of students consider their health to be satisfactory, 12.3% consider it to be good, and 32.1% consider their health to be unsatisfactory. 32.7% of respondents have chronic diseases, among which the most common were diseases of cardiovascular system, digestive system and musculoskeletal system. It is important to note that the number of days missed by students in the academic year due to illness ranges from 5 to 21. Responding to the question, respondents noted that they continued to attend classes even being sick.

Students had significant difficulties responding to the questions regarding the notion of physical qualities (“strength is ...”, “coordination abilities is ...”, etc.), methods of their development and notions of “physical culture” and “physical education”. 53.1% of students associate physical culture with sports; 13.6% – with physical exercises; 9.7% defined physical culture as the general culture of humankind; 23.6% of respondents could not answer to this question.

47.4% of respondents defined the notion of “physical education” as a set of exercises being taught in practical classes; 21.8% of respondents consider physical education to be the education of students during classes; 19.1% students associate physical education with physical culture or its variety; 11.7% of respondents had difficulties responding to this question.

The answers to the questions regarding the definition of physical qualities varied. Authors have noticed the following definitions to be most common among the answers of respondents:

- strength is: «the ability to lift weights», «the ability to perform heavy work», «the ability to carry loads over long distances», «the ability to perform strength exercises»;
- endurance is «the ability to run over long distances», «the ability to work for a long time», etc.;

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– dexterity is: «ability to perform complex work», «ability to react quickly», «ability to act in different situations», «ability to carry small objects», etc.;

– flexibility is: «ability to bend», «ability to stretch muscles», «ability to perform gymnastic exercises», etc.;

– speed is: «ability to run fast», «ability to run over short distances», «ability to do work quickly», etc.;

– coordination is: «orientation in space», «ability to react quickly», «ability to keep balance», etc.

Having analyzed the answers to the questions of the general theoretical block, it is possible to make a conclusions about the level of students' awareness on this indicator. 93.8% of surveyed students could not answer the questions of this block and the received responses were awarded a score of 0; formulating the definition in their own words 6.2% of respondents could not define the content of notion, and such responses were awarded a score of 1.

6. Level of methodological knowledge

The answers to the methodological questions significantly varied and were not clearly formulated. There have been recorded the following answers to questions about the development methods of physical qualities (Table 2).

Table 2

Agrarian students' understanding of development methods of physical qualities

Physical qualities	Development method
Strength	to lift weights, to do pull-ups', muscles pumping, to run, etc.
Endurance	to work a lot, to train a lot, to go to the gym, a lot of running, etc.
Dexterity	to train, to practice, etc.
Flexibility	to perform stretching exercises, to bend over, to touch feet without bending the knees, to train, to do gymnastics, etc.
Speed	to run a lot, to run over a short distance (spring), to train, to take part in competitions, etc.
Coordination	to learn to keep balance on one leg, to perform complex exercises, to play sports, etc ...

Summarizing the above-mentioned, it should be state that 87.4% of respondents had difficulty in answering the questions of the methodological block; 10.8% of respondents could not give a complete and meaningful answers regarding the development methods of physical qualities; 1.8% of students gave only general answers, without specifying the features of the methodology and intensity of physical efforts. Having made a quantitative evaluation of the obtained responses, it is possibly to state that 87.4% of students received a score of 0 points; answers of 12.6% of students were awarded a score of 1.

7. Peculiarities of motivating students

The importance of recreational activities to strengthen and maintain health and prevent mental overload is understood by 35.7% of future agro-industrial complex specialist: 9.6% of students go in for tourism and hiking; 8.8% like cycling and walking; 17.3% prefer sports and outdoors games. 31.9% of students lack for free time for active recreation; 32.4% of respondents do not want to engages in physical activity in their free time.

Determining the conditions motivating students to engage in physical culture, it have been obtained the following results (Table 3).

Table 3

Conditions motivating agrarian students to engage in physical culture

Conditions	Year		
	1 st	2 nd	3 rd
A desire to do physical exercise	38,4%	29,3%	27,6%
The use of the newest means, methods and techniques in physical education classes	13,1%	19,7%	26,1%
A good coach, teacher, instructor	10,6%	7,8%	4,3%
The availability of time	7,9%	10,8%	16,1%
Health and well-being	8,1%	11,1%	12,6%
Availability of fitness equipment and conditions	10,9%	12,4%	4,8%
Other factors	4,7%	3,2%	4,1%
It is difficult to answer	6,3%	5,7%	4,4%

As can be seen, 38.4% of 1st year students believe desire to do physical exercise to be the main reason to engage in physical culture. 29.3% of 2nd and 27.6% of 3rd year students also indicated this condition to engage in physical. 13.1% of 1st, 19.7% of 2nd and 26.1% of 3rd year students noted the

importance of using the newest means, methods and techniques in physical education classes. And in the absence of a good coach, instructor, teacher, 10.6%, 7.8% and 4.3% of first, second and third year students do not want to do physical exercises. The largest percentage of respondents lacking the time was found among 3rd year students; 10.8% among 2nd year and 7.9% among 1st year students. The average percentage of respondents considering the health and well-being as the main condition for physical training varies between 8-12%. Availability of fitness equipment and conditions was indicated as important condition by 10.9% of 1st year, 12.4% of 2nd year and 4.8% of 3rd year students, respectively.

8. Students' understanding regarding the organization of physical education process

According to the results of the survey in the axiological block of questions it has been determined quantitative assessments of surveyed students' knowledge on this indicator: 0 points – 82.1%; 1 point – 13.3%; 2 points – 4.6%.

When choosing forms of physical education classes, 18.1% of respondents preferred practical classes; 13.9% of students chose sectional classes as a priority form; lectures were chosen by 2.3% of students. 65.7% of respondents had difficulty in answering the questions.

Analysis of the answers allows to state that 83.4% of surveyed students are not satisfied with the conditions in which physical education classes are held: 28.7% of future agrarian specialists consider a clean and well-lit gym to be the main condition for physical education classes; 16.4% of students would like to take physical exercise outdoors; 38.3% of respondents would like to train in a gym with good fitness equipment. 1.3% of students are quite satisfied with the conditions for classes; 15.3% of respondents had difficulties in answering this question. It should be noted that, in the view of the students, the priority ways to optimize the process of physical education in agricultural universities are follows:

- changes in the curriculum content (23.2%);
- changes in forms of physical education classes (9.4%);
- changes in technical equipment and training conditions (16.9%).

50.5% of the surveyed students could not answer the question.

Quantitative assessment of students' answers to the questions of the prognostic block is as follows: 0 points – 72.6%; 1 point – 25.8%; 2 points – 1.6%.

9. Analysis of the responses to questions of professional and applied block

The data obtained as a result of the analysis of the answers to the questions of professional-applied block demonstrates that most students of 1st – 3rd year have little understanding regarding the content and essence of professional and applied physical training in general and its features for agricultural specialties’. Students’ understanding of the concept of “professional and applied physical training” are presented in Table 4.

Table 4

Agrarian students’ understanding of the concept of “professional and applied physical training”

Understanding of “professional and applied physical training” as:	Year		
	1 st	2 nd	3 rd
education process	0,6%	1,3%	2,6%
a complex of physical exercises and activities aimed at better mastering the future profession	5,6%	9,8%	14,6%
a set of physical qualities of the future agro-industrial complex specialist	7,9%	5,8%	9,1%
an amount of theoretical knowledge important for the chosen profession	8,1%	9,3%	13,7%
a focused use of physical education methods to prepare future professionals for the peculiarities of professional activity	0,9%	9,1%	4,3%
Other understanding	5,6%	1,2%	5,9%
It is difficult to answer	71,3%	63,5%	49,8%

0.6% of 1st year students, 1.3% of 2nd year students, and 2.6% of 3rd year students consider PAPT (Professional and Applied Physical Training) to be an educational process. Number of respondents, which believe professional and applied physical training to be associated with a set of physical exercises and activities aimed at better mastering the future profession, ranges from 5 to 14%. 7.9% of surveyed 1st year students, 5.8% of 2nd year, and 9.1% of 3rd year students believe PAPT to be a set of physical qualities of the future agro-industrial complex specialist. About 9% of 1st year and 2nd year students answered that professional and applied physical training is an amount of theoretical knowledge important

for the chosen profession. 13.7% of 3rd year students consider PAPT to be a theoretical training for a future specialist. 0.9% of 1st year students, 9.1% of 2nd year students and 4.3% of 3rd year students preferred the idea of professional and applied physical training as a focused use of physical education methods to prepare future professionals for the peculiarities of professional activity.

It should be noted that the number of students which had difficulty in answering the questions was more than 50% of the surveyed participants. Undoubtedly, the obtained results are an indicator of the low awareness level of majority of students about professional and applied physical training. On the positive side, the number of students having difficulty in answering the questions has almost halved from the 1st year to the 3rd year.

The 1st–3rd year students have identified the professionally important qualities as follows: strength – 56.3%, endurance – 67.9%, dexterity – 21.6%, coordination – 35.8%, speed – 38.4% flexibility – 12.7% (Figure 1).

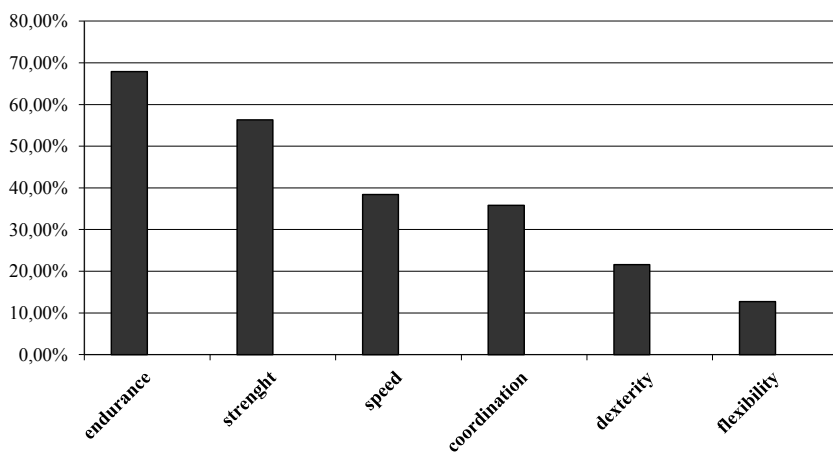


Figure 1. Agrarian students' understanding regarding professionally important level of physical qualities for chosen speciality

About 14.7% of respondents had difficulty in answering the questions about professionally important physical qualities. It should be noted that the largest part of them – 72.4% – were 1st year students.

48.1% of students believe that to successfully master the profession it is necessary to carefully study special theoretical disciplines in the chosen speciality. An important role of physical education and sports was outlined by 15.6% of respondents, 4.8% of them believe that physical training should have a professional orientation and take into account the specifics of the future profession. 36.3% of students had difficulty in answering the questions about PAPT.

Having analyzed the answers to the questions of the professional and applied block, it is possibly to state that 85.3% of respondents have an unsatisfactory awareness level, their responses were awarded a score of 0. 12.5% of respondents were able to answer the questions, but their answers were not clearly formulated and did not fully disclose the content and features of the concepts of the notions proposed in the questionnaires, their answers were awarded a score of 1 point. Answers of 2,2% of students, which were able to clearly and meaningfully answer questions, showed awareness of the peculiarities of their future profession and preparation for working conditions, were awarded a score of 2 points.

10. General level of professional and applied awareness

Analysis of the research results and statistical processing of the obtained data allowed made it possible to determine the general level of professional and applied awareness of students studying on agricultural specialities (Figure 2).

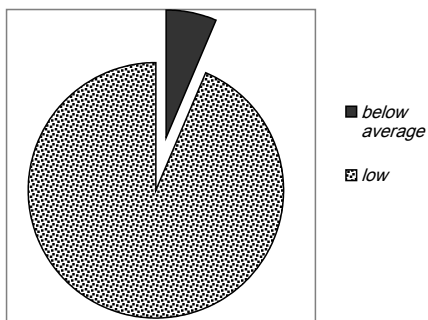


Figure 2. Level of professional and applied awareness of students studying on agricultural specialities

The survey showed that 6.4 % of respondents provided meaningful answers to the questions of the two blocks and showed a level, which is below average. 93.6% of surveyed students, which only answered the questions of one of the five blocks, or could not formulate the notions and give clear meaningful answers to most questions of each block, have a low level of professional and applied awareness.

11. Conclusions

This study has outlined the main tasks of physical education in higher education establishments. As a result, the role of the professional and applied physical training in the system of physical education has been defined.

The survey results make it possible to state that most of surveyed students have a low level of professional and applied awareness. That was demonstrated by the fact that the high percentage of respondents had difficulties responding to the questions about theoretical, methodological, motivational, prognostic and professional-applied areas.

A large part of students' answers turned out to be far from the generally accepted definitions of notions. The percentage of answers, that would be clearly formulated and fully disclose the content of the notions proposed in the questionnaires, is insignificant.

Low level of professional and applied awareness was recorded in 93.6% of respondents; below average level of awareness was recorded in 6.4 % of surveyed students.

It should be noticed that the results corresponding to the average, higher than average or high levels of professional and applied awareness were not recorded among students.

The directions of further scientific researches will be to find ways to increase the level of professional and applied awareness of students studying on agricultural specialities.

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