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ADVANTAGES AND RELIABILITY OF USING INTERNET NETWORKS IN THE PROCESS OF INDEPENDENT EDUCATION FOR STUDENT GYMNASTS

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ABOUT ARTICLE

Key words: Improving sports pedagogical skills, arithmetic mean, coefficient of variation values, relative differences in arithmetic mean values, statistical uncertainty, credit module, dialectical worldview, mastery of knowledge and skills, competitive.

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Abstract: The article describes the study of the advantages of using Internet networks in the process of self-learning of students of the 51/21- (control) and 52/21- (experimental) groups of the Uzbekistan State University of Physical Education and Sport "Gymnastics" specialty "Sports Gymnastics", as well as the impact of this process on the student's knowledge level. The results of the pedagogical experiment, the main statistical characteristics of the data recorded on the indicators learned during the experiment of both groups of students, the absolute and relative increases in their arithmetic mean values during the experiment, the results of assessing the statistical reliability of these absolute increases, and their discussion are presented.

Introduction. The goal of higher education is to train specialists who have perfected high professional qualifications and skills in the chosen field, prepared for independent creative activity. The demands of the modern labor market require the formation of independent labor skills among graduates and students of higher education institutions as a key factor in the level of training of future specialists.

The modern world is on the verge of transitioning to the post-industrial or information stage of its evolutionary development. Production tools and methods are becoming technologically advanced and modern, and the requirements for the qualifications of specialists are increasing. Graduates, first of all, must have the necessary skills required to perform professional duties. At the present time, the process of updating the volume of information is becoming very rapid. According to various data, the volume of all scientific information is doubling every one and a half to two years. Thus, the need for a radical reconstruction of the entire system of vocational education becomes obvious. Accordingly, it is necessary to review, that is, improve, the content of current education.

In the 1990s, it became clear that the education received by university graduates in some advanced countries (in particular, Russia) did not correspond to the reality they encountered. The development of capitalist relations and the subsequent technological revolution also posed other tasks for education. The formation of a skilled, competitive workforce equipped with the necessary tools in the professional sphere has become one of the priority tasks. In addition, many new production sectors and, accordingly, new professions and specialties that did not previously exist are emerging. Another factor that has prompted the revision of the higher vocational education system is the process of global integration. In the context of globalization, a trend is emerging to unify professions and the content of their training. The exchange of experience, knowledge, and specialists is becoming one of the criteria for development. Taking into account the dynamics of the accumulation of knowledge by humanity, the concept of lifelong learning remains relevant. It is impossible to implement the principle of continuous education without strengthening the role of independent work of students at the university, in which independence is formed as a personal virtue, a method of action for solving educational and professional problems is mastered. This is the relevance of the work. There are no single requirements for how the independent work of students of the newly formed local higher education institution should be organized. Thus, the experience of universities that are trying to meet the demands of the time can be considered useful. Based on this experience, it is clear that the problem of this work is the relevance of the system of organizing independent work of students in the specialty "Gymnastics" of the Uzbek State Technical University of Physical Education and Sports and the identification of its features in connection with the current tasks of education.

Methodology. The purpose of the study : To study the advantages of using Internet networks in the process of self-study of students of the 2nd stage “Sports Gymnastics” in groups 51/21 and 52/21 (17 students in each) in the specialty “Gymnastics” of the UzDJTSU, in the

process of acquiring and improving knowledge and skills, as well as the impact of this process on the level of knowledge of students.

Results and Discussion. Table 1 shows the results of comparing the results of the total scores of independent learning of students from the control (n=17) and experimental (n=17) groups in the mastery of the four academic subjects selected for the study at the beginning of the experiment (at the end of the 2nd semester of the 2nd stage of the study).

Table 1.

Comparison of the results of the scores of students of the control (n=17) and experimental (n=17) groups on independent learning tasks in mastering four selected subjects at the beginning of the pedagogical experiment

Comparison of the results of the scores of students of the control (n=17) and experimental (n=17) groups on independent learning tasks in mastering four selected subjects at the beginning of the pedagogical experiment

	Experience head Control group					Experience head Experience group			
	Study sciences					Study sciences			
tr .	1	2	3	4	tr .	1	2	3	4
1	18	17	16	18	1	17	17	20	19
2	17	15	18	16	2	18	18	19	18
3	22	21	22	21	3	23	22	25	24
4	23	22	23	24	4	24	24	24	23
5	15	18	19	20	5	16	16	18	17
6	24	25	26	27	6	25	24	26	25
7	16	17	19	20	7	17	17	19	18
8	17	18	18	21	8	18	19	24	22
9	23	23	24	26	9	21	22	25	25
10	18	19	21	20	10	17	18	19	17
11	19	21	22	21	11	18	17	19	18
12	18	19	20	19	12	17	18	20	19
13	23	24	25	26	13	24	26	27	26
14	22	23	24	25	14	21	20	21	20
15	18	19	20	19	15	19	18	19	19
16	19	20	21	20	16	20	19	20	20
17	21	22	23	21	17	22	20	21	22

$\overline{X}$	19.59	20.18	21.24	21.41	$\overline{X}$	19.82	19.71	21.53	20.71
σ	2.81	2.77	2.75	3.10	σ	2.92	2.91	2.94	3.00
V, %	14.33	13.71	12.95	14.49	V, %	14.73	14.77	13.65	14.46
			Absolut difference			0.24	0.47	0.29	0.71
			Relative smell difference,%			1.20	2.33	1.39	3.30
					t	0.24	0.48	0.30	0.67
					p	>0.8	>0.6	>0.7	>0.5

Note: For convenience and as a convention, in the tables and diagrams below, starting with this table in this chapter, the academic disciplines are indicated in the following order:

1. Gymnastics and teaching methods;
2. Theory and methodology of gymnastics;
3. Improving sports pedagogical skills (gymnastics and rhythmic gymnastics);
4. Foreign language studied according to the curriculum this semester.

The average relative difference, based on the analysis of the data presented in this table, is 2.05%.

The generalization and analysis of the data presented in this table allowed us to identify the following scenario. At the beginning of the experiment, the control group consisted of II-level gymnastic students from four selected academic disciplines. The arithmetic average of the total scores on independent learning tasks in mastering the subject of gymnastics and teaching methods ± σ = 19.59 ± 2.81 points, Gymnastics Theory and Methodology ± σ = 20.18 ± 2.77 points in mastering the subject , ± σ = 21.24 ± 2.75 points in mastering the subject of Improving Sports Pedagogical Skills (Gymnastics and Rhythmic Gymnastics) , and ± σ = 20.18 ± 2.77 points in mastering the subject of Foreign Language, which is studied according to the curriculum in this semester. ± σ = 21.41 ± 3.10 points. The corresponding indicators in the experimental group were close to this, that is, the arithmetic mean of the total points on independent learning tasks in mastering the subject of Gymnastics and teaching methods ± σ = 19.82 ± 2.92 points, Gymnastics Theory and Methodology ± σ = 19.71 ± 2.91 points in mastering the subject , ± σ = 21.53 ± 2.94 points in mastering the subject of Improving Sports Pedagogical Skills (Gymnastics and Rhythmic Gymnastics), and In the mastering of the foreign language subject studied according to the curriculum in this semester It was determined that ± σ = 20.71 ± 3.00 points. The coefficient of variation values calculated for the total scores of the control and experimental groups on independent learning in mastering subjects at the beginning of the experiment were in the range of V=12.95% to V=14.77%. These values are located in the positive part of the

satisfactory part of the gradation, and the relative differences in the arithmetic mean scores of the control and experimental groups in four subjects The fact that they fluctuated between 1.20% and 3.30%, with an arithmetic mean of 2.05%, is considered evidence that the pedagogical experiment was methodologically well organized (Diagram 1).

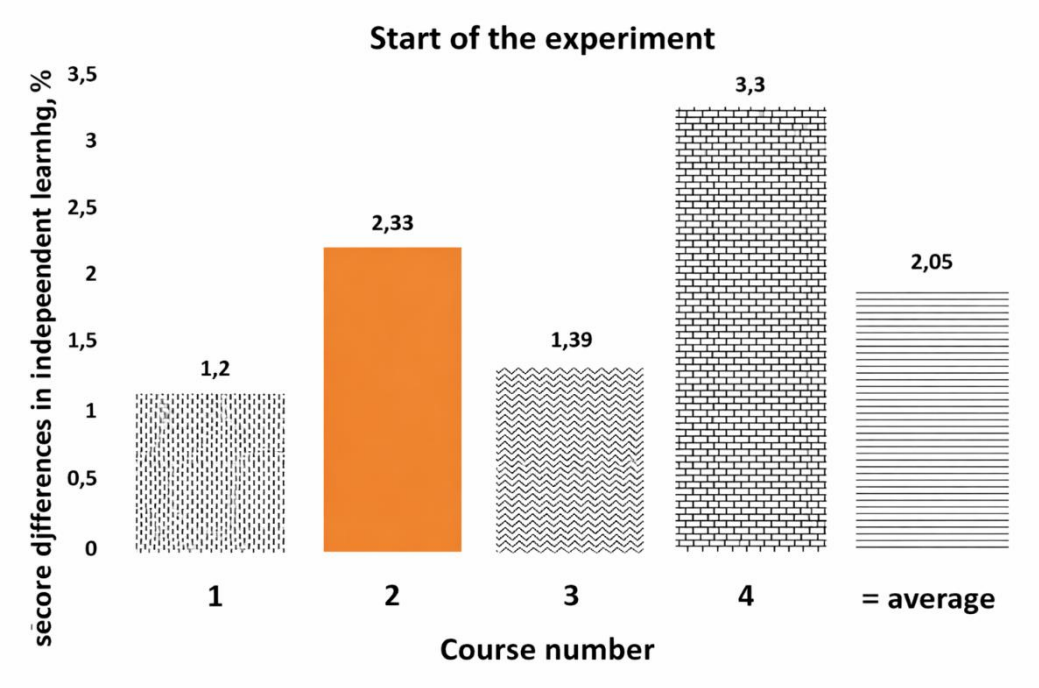

Diagram 1. At the beginning of the pedagogical experiment, the total scores of students in the control and experimental groups on independent learning tasks in mastering the four selected subjects average arithmetic values relative differences (in percent)

In addition, the results of the assessment of the statistical reliability of the absolute differences in the arithmetic mean values of the scores determined in the control and experimental groups at the beginning of the experiment based on the calculation of Student's critical values showed that they were unreliable with varying degrees of significance (between t=0.24 and t=0.67 and in the interval P>0.8 and P>0.5) in all 4 subjects studied. This fact also confirms that the pedagogical experiment was methodologically organized correctly.

Conclusions. After analyzing the available scientific and methodological literature, the following conclusions were drawn:

1. In the completely new credit module system that has entered the modern higher education system, great attention is paid not only to the process of independent learning of students, but also to a large number of class hours allocated to this learning.

The main goal of organizing independent student work in educational institutions is:

- to form in the student the knowledge and skills necessary for the independent performance of certain educational tasks under the guidance and supervision of a teacher;

- to develop a dialectical worldview in students; - to develop students' learning and cognitive activity and independence; - to popularize the educational process; - to ensure the unity of education, upbringing and development;

- ensuring the connection between subjects; - individualization of the educational and upbringing process; - formation of a conscious attitude towards labor and public property in students; - improvement of training for specialization based on the requirements of accelerating scientific and technical progress; - integrated methodological support of disciplines and specialties; - ways to increase the effectiveness of the lesson; - introduction of new pedagogical technologies;

- activating the educational process.

The student's independent work is an integral part of the educational work specified in the curriculum for mastering the subject, it is provided with methodological and information resources, and its implementation is controlled based on the requirements of the rating system.

The tasks of the student's independent work include the following:

- to have the skills to independently assimilate new knowledge; - to identify convenient methods and tools for searching for and finding the necessary information;

- effective use of information sources and addresses; - work with traditional educational and scientific literature, normative documents; - work with electronic educational literature and information; - identify rational solutions using the Internet; - analyze the database; - prepare the results of the work for examination and rework based on expert conclusions; - systematic and creative approach to completing tasks; - justification and defense of the developed solution, project or idea in a team of specialists.

2. At the beginning of the experiment, the relative differences in the arithmetic mean scores of the control and experimental groups in the mastery of subjects on independent learning ranged from 1.20% to 3.30%, and their arithmetic mean was 2.05%. The statistical reliability of the absolute differences in the arithmetic mean values of these results was assessed based on the calculation of Student's critical values. The results showed that all 4 subjects studied were unreliable to varying degrees of significance (between t=0.24 and t=0.67 and in the interval P>0.8 and P>0.5). This fact also confirms that the pedagogical experiment was methodologically well organized.

3. The arithmetic mean of the cumulative scores of the II-stage gymnastic students of the experimental group in the four selected academic subjects The relative increase during the experiment was 2.215 times higher than the corresponding indicator in the control group , and 2.602 times higher than the average relative increase in the control group, and the positive

absolute change in the results in the experimental group in these subjects during the experiment was 2.524 times higher. The fact that the corresponding indicators in the control group were statistically reliable with two high (P<0.001) and one good (P<0.01) levels of significance (two were statistically reliable with a satisfactory level of significance (P<0.05) and the remaining two were statistically unreliable with a satisfactory level of significance (P>0.05)) confirmed the effectiveness of the pedagogical methodology used in the experimental group.

4. The tasks and advantages of independent work of gymnastics students in the experimental group on physical education disciplines in the process of pedagogical education, the effectiveness of the methodology aimed at forming skills and abilities in the effective use of Internet resources and opportunities during this independent work, are highly appreciated . During this experience, it was also emphasized that they acquired knowledge, skills, and abilities regarding their physical activity , health values, and the components that make up a healthy lifestyle , as well as the rules and procedures for adhering to them and their benefits.

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