Research Article

Cluster-Module As Method Of The Improvement Of The Current Direction In Structure Of The Section Of The Physical Culture

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Article History: Received: 10 January 2021; Revised: 12 February 2021; Accepted: 27 March 2021; Published online: 28 April 2021

Abstract:

The actuality of the research. Today in our country, special attention is paid to the development of physical culture and sports among students of higher educational institutions. The number of students studying in higher educational institutions of the Republic is increasing every year, and many of them are not ready to fully perform the loads of physical exercises set in the standard educational programs on the subject of "Physical culture and sports". This position requires the development of a new cluster-modular method aimed at improving the performance of students with different levels of physical development and physical fitness.

The aim of the research is to develop a cluster module for teaching the discipline "Physical culture and sport" in the system of higher professional education and study it in the pedagogical experience.

Tasks of research:

- to study the current state and value of the cluster-modular method of education in the higher education system;;

- to determine the state of General physical training of students studying in higher educational institutions (boys and girls);

- Development of cluster-modular structure of the educational program on the discipline " Physical culture and sport";

- to check the effectiveness of the cluster-modular method in teaching the discipline "Physical culture and sport" in higher educational institutions on pedagogical experience.

The scientific novelty of the research is as follows:

-the importance of using the cluster-modular method in teaching the discipline "Physical culture and sport" in higher educational institutions is determined;

- the indicators of physical (strength, speed, endurance qualities) readiness of students studying in higher educational institutions (boys and girls) are determined.;

-in educational institutions of science "physical culture and sport" developed a set of basic and dynamic elements of modular training, defined value changes;

- Improved methods of organizing the educational process on the subject of "Physical culture and sport" by using a cluster-modular method of training.

The practical result of the study is as follows:

the dynamics of the functional state and physical fitness of students using the cluster-modular method in the discipline "Physical culture and sport"is determined;

the use of the experimental program for students in the educational process is scientifically and methodically justified;

The classes on the subject "Physical culture and sport" developed practical modules for the development of strength, endurance and dexterity, the effectiveness of which is based on pedagogical experience.

The authors of this study were engaged in the development of cluster-module training in order to create favorable conditions for the formation of personality, the study of individual needs of a person, educational and professional activities on the basis of his basic training on an individual training program. This means that cluster-module learning is more convenient than other educational concepts and theories.

Theoretical analysis of the cluster-modular doctrine allows us to identify the following characteristics::

- this tutorial provides a didactic system and visibility in the cluster-module software;

- Cluster module provides the basis for the theoretical material describing the structure of the content of education, control and evaluation of methodological material and learning in the educational process ;;

- Cluster-modular training considers the educational legacy in the implementation of personal opportunities and needs of students in the learning process.

Thus, as a result of the generalized analysis of cluster-modular education, we understand that it is a high-tech educational system based on a conscious educational process and activity approach.

To justify the effectiveness of the cluster-module method of training in practice, the implementation of a pedagogical experiment was carried out in the conditions of teaching students with different levels of physical development in higher education institutions.

It is known that, unlike other spheres, the object of scientific research in the field of physical culture and sports is primarily a person. We also need to determine to what extent the physical fitness of the students who were initially selected by the study participants met our goal.

From the results of the study, we concluded that when analyzing the results of testing indicators "Alpomish and Barchinoy" students of Gulistan state University were analyzed "100 m.ga average number of boys on "run" 21% "Target", 39% "Credit" it was reported that 40% of girls could not check, and the results -99% to -23.6, to Credit-11, 8%, to 64.6%. "Long jump" control requirement for children-boys 39% "Target", 25% "Credit" indicators and that 36% could not check, and results of girls could not check -2,8% to Target, Credit% to-23,59%, 73,59%. From the control" pull on the turntable "and" lift the cottage 65% "Target", 19% "Credit"moreover, 16% of girls could not check, and the results -34.2% to Target, Credit-14, 6%, 10.6% did not meet, 54% of boys and 51.1% of girls did not meet the control requirements "throwing a grenade"and" throwing a tennis ball". The results of the control task "cross-running 3000 m and 2000 m" were as follows, son of children 0% "Target", 6% "Credit", 94% the fact that she could not check, and the results of the girl could not check -20.2% to Target, Credit-42,1%, 37,6%. While the University met the control requirement of " walking for 6 minutes "to"Target", 32% to"Credit", 55% to "can't check", while female students met 23.6% to "Target", 32.5% to"Credit", 43.8% to"could not pass".

It can be seen that when students of Gulistan state University assign test standards "Alpomish and Barchinoy" it is necessary to develop and implement modules that have different forms and purposes, taking into account age, gender and health level. The development of a modular structure of educational disciplines begins with an expert assessment of the structural significance (salinity) of educational elements in order to set tasks related to the issues of the process, and clarify the necessary structural elements to create a full-fledged didactic support of the educational process. In addition to the possibility of organizing the relationship of the type of interaction in the description of the dialogue between the teacher and the educator, this makes it possible to make specific didactic tests, which are characterized by structural elements, and these tests can be used in the current and intermediate control of achievements in the educational process.

We will proceed to the implementation of the sequence of expert assessment of the structural significance of educational elements in the subject "Physical culture and sport".

1-table

Indicators of students passing the test standards "Alpomish" and "Barchinoy" (%) (boys)

№	Faculties	100-metres race (sec.)			Long jump (m)			Chinup (times)			Grenade throwing (м)			Cross 3000 m. (minutes/sec.)			Running-walking for 6 minutes		
		T	C	N/P	T	C	N/P	T	C	N/P	T	C	N/P	T	C	N/P	T	C	N/P
1	Pedagogics(n=111)	19	62	30	39	25	47	93	12	6	21	28	62	0	5	106	14	39	58
	%	17	56	27	35	23	42	84	11	5	19	25	56	0	4.5	95.5	12.7	35	52.3
2	Physics-mathematics(n=72)	18	12	42	30	19	23	31	22	19	20	15	37	0	4	68	10	22	40
	%	25	17	58	42	26	32	43	31	26	28	21	51	0	5.5	94.5	14	30.5	55.5
3	Philology (n=11)	4	2	5	7	4	-	2	3	6	1	4	6	0	3	8	1	1	9
	%	36	18	46	64	36	0	18	28	54	9,09	36	54,9	0	27	73	10	10	80
	X-total194-100%	21	39	40	39	25	36	65	19	16	22	24	54	0	6	94	13	32	55

2-table

Performance indicators of students in passing the test standards" Alpomish " and "barchinoy" at the beginning of the research (girls)

№	Факультетлар	100-metres race (sec.)			Long jump (m)			Sit-up			Tennis ball throwing			Cross 2000 m.			Running-walking for 6 minutes (м)		
		T	C	N/P	T	C	N/P	T	C	N/P	T	C	N/P	T	C	N/P	T	C	N/P
1	Pedagogics (n=107)	23	13	71	-	25	82	35			23	30	54	18	43	46	25	32	50
%		21	12	67	0	23	77	33	24	43	21	28	51	17	40	43	23	30	47
2	Physics-mathematics (n=34)	12	6	16	-	13	21	20	13	1	10	5	19	11	14	9	9	12	13
%		35	18	47	0	38	62	59	38	3	29	15	56	32	41	27	27	35	38
3	Philology (n=37)	7	2	28	5	4	28	6	13	18	8	11	18	7	18	12	8	14	15
%		19	5	76	14	11	75	16	35	49	22	29	49	19	49	32	22	38	40
X-total 178-100%		23,6	11,8	64,6	2,8	23,59	73,59	34,2	14,6	10,6	23	25,8	51,1	20,2	42,1	37,6	23,6	32,5	43,8

Note:T–target, C–credit, N/P–not passed.

We will proceed to the implementation of the sequence of expert assessment of the structural significance of educational elements in the subject "Physical culture and sport".

3–table

Table of studies on the discipline " Physical culture and sport"

Part/theme/question.		Aim of the exercise	S/St	Sbj /S	P/Sbj	I
1S	Physical preparation	Improving the physical fitness of students	36			
1 Sbj	Determine the physical fitness of students. (Jumping from a place to a length (cm), running at a distance of 60 meters (seconds), bending the arm in a supine position with support (times)	Development of students ' strength qualities of speed, dexterity, endurance		9.52		
1P	Long jump from position to position, wrist bending while leaning (times)	Strength, determination of agility qualities			68	14
2P	Running for 60 meters	Determining the quality of speed			32	6.6
2 Sbj	Exercises for the development of strength and endurance. Mobile games.	Development of strength and dexterity in students		9.52		
1P	Developing strength and endurance.	Organize pull-ups on a competitive basis			65	13.4
2P	Developing the skills of leaning and wringing	Improving students ' physical fitness			35	7.2
3 Sbj	Exercises for the development of strength. From a lying position, bend your arm. Guys: (on the floor in a standing position) 50-40-30 (times). Girls: (in case of reliance on the place of gymnastics) 15-12-10 (times).	Improve the quality of strength and endurance of students, conduct outdoor games.		19.04		
1P	Exercises that develop strength using gymnastic elements	Development of strength and endurance in students			25	20,5
2P	Power development through mobile games	Organizing a lesson in the style of competition			24	19.7
3P	Exercises for developing hand strength	Development of power quality			30	24.7
4P	Twisting the arm while lying on a support, lifting the torso while lying on the ground.	Form vital skills in students.			21	17.3
4 Sbj	Determine the physical training of students. Jump from a place to a length (cm), running at a distance of 60 meters (s), bending the arm with the support on (time).	Development of students ' physical qualities, determination of their physical fitness for field athletics.		4.8		
1P	Organizing sport competitions	Involving students into sports			100	5,18

Note: S- Section, St- stage, Sbj- subject, P-problem, I-importance

When analyzing the results of a pedagogical study of the motor readiness of students studying in higher educational institutions, it was found that their level of health and physical fitness was low. The pedagogical experience was aimed at improving the educational process in physical culture, focusing on the physical training of students based on cluster-modular training. This training allows students to successfully perform the amount of physical activity provided in the program material of state standards. The experiment was organized according to the scheme of comparative pedagogical research with the participation of control and experimental groups. Training in the experimental group was conducted on the basis of a special cluster-module developed by us. Classes in the control group were conducted according to the generally accepted method.

4-table

Dynamics of physical fitness of students of experimental and control groups (boys) (n=44)

№	Indicators	Unit of measure	Groups	At the beginning of experiment	At the end of experiment	t	p
				$\bar{X}$±σ	$\bar{X}$±σ		
1	Long jump from position to position	cm	CG	221±5,2	224±4,5	1,78	>0,05
			EG	218±4,4	230±3,4	2,4	<0,05
2	running to 60 metres	sec.	CG	9,7±0,4	9,3±0,3	1,2	>0,05
			EG	9,8±0,5	8,8±0,2	3,2	<0,01
3	1000 m. cross	min/sec	CG	3.42:01,0±1,4	3.30:01,0±1,1	1,8	>0,05
			EG	3.43:04,0±1,2	3.20:07,0±1,4	3,5	<0,01
4	Twisting the arms in the supine position with support	times	CG	27,3±2,3	31,4±2,8	2,0	>0,05
			EG	27,5±2,4	36,7±4,8	7,1	<0,001
5	Pull-ups	times	CG	9,6±1,4	12,3±1,5	2,7	<0,05
			EG	9,2±1,2	13,1±1,2	3,8	<0,001

Note: CG – control group, EG – experimental group.

№	Indicators	Unit of measure	Groups	At the beginning of experiment	At the end of experiment	t	p
				$\bar{X}$±σ	$\bar{X}$±σ		
1	Long jump from position to position	cm	CG	156,2±3,2	160,4±6,2	1,78	>0,05
			EG	156,5±4,4	166,7±4,3	2,9	<0,01
2	Running to 60 metres	sec.	CG	11,8±0,7	11,3±0,3	1,2	>0,05
			EG	11,7±0,5	11,0±0,2	4,1	<0,001
3	1000 m. cross	min/sec	CG	2.22,1±0,5	2.15,0±0,6	1,8	>0,05
			EG	2.23,0±0,4	2.04,0±0,7	3,7	<0,01
4	Twisting the arms in the supine position with support	times	CG	9,4±1,2	10,6±1,2	1,11	>0,05
			EG	9,7±1,3	12,2±1,05	4,5	<0,001
5	Sit-ups	times	CG	19,8±1,4	23,1±3,6	2,0	>0,05
			EG	19,5±1,6	28,0±3,4	6,3	<0,001

5-table.

Dynamics of physical fitness of students of experimental and control groups (girls) (n=46)
Note: CG – control group, EG – experimental group.

The following results are obtained on the effectiveness of the developed cluster-modular training method. According to him, 60 m to teaching experience. the distance of the experimental group students averaged 9.8±0.5 seconds, and the control group students averaged 9.7±0.4 seconds. Statistical differences between indicators are unreliable (r>0.05). After the pedagogical experience, the students of the experimental group had an average of 8.2±0.2 seconds, while the students of the control group had an average of 9.0±0.3 seconds. Speed qualities increased by 19% in the experimental group and by 7% in the control group. Statistical differences between indicators are equal to confidence (P<0.001).

Before the pedagogical experience of 60 m. The distance of the experimental group of students averaged 11.7±0.5 seconds (V=4%), while the students of the control group averaged 11.8±0.7 seconds (V=3.7%). Statistical differences between indicators are unreliable (r>0.05). After the pedagogical experience, the girls in the experimental group had an average of 11.0±0.2 seconds, respectively, and the students in the control group had an average of 11.3±0.3 seconds. Statistical differences between indicators are equal to confidence (P<0.001).

CONCLUSION

The organization of classes "Physical culture and sport" in higher education institutions based on cluster-modular training, improvement of the educational process, the pedagogical management system of this science, have proven their effectiveness in improving the functional state of students with disabilities in health and in improving physical fitness based on pedagogical experiments.

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