

## DYNAMICS OF KNOWLEDGE, SKILLS AND ABILITIES IN THE PROCESS OF PERSONAL PHYSICAL EDUCATION BASED UNIVERSITY STUDENTS

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**Annotation.** The directions of development of physical culture of the students were considered. The presence of the knowledge and skills of the students in the field of physical culture is shown. The conditions for self-regulation of mental and physical condition of the person. In the experiment involved 640 students (boys, n = 320 and girls, n = 320). Applied research profile degree of development of athletic activities. Show the direction of the implementation of individually oriented physical education. Found that students' knowledge correspond to the first level (deep and full of knowledge and skills needed to use them) and the second (the presence of diverse, but not full knowledge). Formed skills that relate to perform common exercise. Recommended directions for the formation of skills that are needed for fitness activities.

**Keywords:** human, physical education, knowledge, skills, student.

### Introduction

In doctrine, which was characteristic for the USSR, physical education and students' health was regarded as exclusive prerogative of appropriate organizations and specialists. With it, students were regarded as object of control, videlicet – executors of will of discipline's "Physical education" instructors, the efforts of whom were mainly concentrated on training of motion actions and selecting of exercises for development of physical conditions of trainees. The practice of command physical education system, which was built on relations: subject (instructor) – object (student), is remarkable by the fact, that the most significant results are demonstrated by students in the period of their presence at classes on "Physical education" and noticeably are lost when these classes stopped [6]. It has been stated that most of risk factors, which determine the level of human health, depend on subjective factors, videlicet on behavior, which is determined, in its turn, by values and motives, knowledge and skills, presence or absence of practice of maintaining own health 1-5,7,9, <http://www.euro.who.int/PubRequest?language=Russian>].

Self regulation is defined as a mechanism of human internal psychic activity in the process of adapting to conditions of life activity. It is a mechanism of mobilizing and actualizing of human abilities, compensation and regulation of psychic demonstrations in connection with demands and aims of life activity. Personality's ability to regulate and organize own life as something integral, subordinated to own values and aims – is the highest level and genuine quality of life activity [8, pg.53].

The work has been fulfilled as per plan of scientific & research works of Donetsk national university.

### Purpose, tasks of the work, material and methods

*The purpose of the research* – is to determine results of formation of university students' physical culture in the process of personality-oriented physical education, which are expressed in presence of knowledge, skills and abilities in the field of health related physical culture.

### *The methods and organization of the research*

Pedagogical experiment on testing of concepts and technologies of personality-oriented physical education was carried out in 2012-2013 academic year at Donetsk national university.

For definition of the obtained in the course of personality-oriented approach to training of physical culture principles educational results we carried out questioning, in which students of control group (boys, n=160 and girls, n=160) and experimental group (boys, n=160 and girls, n=160) took part. We applied questionnaire for study of formation level of physical culture activity [2].

Students were offered to answer the question of the questionnaire: "Render, please, self-appraisal of your knowledge, skills and abilities in the field of using of health related and re-creational physical culture". The answers were distributed by four levels. With it, 1<sup>st</sup> level characterized student's having profound and complete knowledge and skills, required for their application; 2<sup>nd</sup> level means presence of various, but incomplete knowledge, presence of skills, required only for fulfillment of standard physical exercises; 3<sup>rd</sup> level – presence of fragmentary knowledge as well as some skills in fulfillment of standard physical exercises; 4<sup>th</sup> level – complete absence of knowledge and skills.

### Results of the researches

In table 1 we present results of knowledge and skills' in the field of health related physical culture self appraisal by control group boys.

Table 1

*Results of control group boys' answers about the presence of knowledge and skills, required for practicing of physical activity, given at the beginning of experiment (n=160)*

Type of knowledge	The level of knowledge as per the obtained answers			
	1-st	2-nd	3-rd	4-th
Improvement and maintenance of own health	6.87%	8.75%	11.88%	72.5%
Increasing of workability	3.75%	10%	23.75%	62.5%
Formation of character and will	3.12%	14.38%	26.25%	56.5%
Organization of physical culture leisure	6.87%	6.87%	14.38%	71.8%
Physical education and development of own children	-	5.63%	28.12%	66.5%

Knowledge, required for "Improvement and maintenance of own health" are presented in the following way: 1<sup>st</sup> level – 6.87 % of students, 2<sup>nd</sup> – 8.75 %, 3<sup>rd</sup> – 11.88 % and 4<sup>th</sup> level– 72.5 %.

Or increasing of workability, corresponding to 1<sup>st</sup> level were marked by 3.75 % of students, 2<sup>nd</sup> level– 10 %, 3<sup>rd</sup> level– 23.75 % and 4<sup>th</sup> – 62.5 %. Knowledge, required for formation of character and will were estimated by 1<sup>st</sup> level by 3 students (3.12 %), while by 2<sup>nd</sup> level– 14.38 %, by 3<sup>rd</sup> – 26.25 % and by 4<sup>th</sup> level – 56.25 %. Own knowledge in organization of physical culture leisure were appraised by 1<sup>st</sup> level by 6.87 % of students, by 2<sup>nd</sup> level– 6.87 %, by 3<sup>rd</sup> – 14.38 % and by 4<sup>th</sup> – 71.88 %. Knowledge, required for physical education of own children were not estimated by 1<sup>st</sup> level by any student, by 2<sup>nd</sup> – 5.63 %, by 3<sup>rd</sup> – 28.12 % and by 4<sup>th</sup> – 66.25 %.

So, at the beginning of experiment main part of control group boys marked, that their knowledge mainly correspond to 4<sup>th</sup> level – full absence of knowledge and skills and 3<sup>rd</sup> level – fragmentary knowledge.

Table 2

*Results of control group boys' answers about the presence of knowledge and skills, required for practicing of physical activity, given after experiment (n=160)*

Type of knowledge	The level of knowledge as per the obtained answers			
	1-st	2-nd	3-rd	4-th
Improvement and maintenance of own health	7.5%	10%	13.13%	69.37%
Increasing of workability	3.5%	11.25%	26.25%	58.75%
Formation of character and will	3.2%	13.13%	2.5%	56.25%
Organization of physical culture leisure	6.7%	4.38%	16.87%	71.88%
Physical education and development of own children	-	8.13%	31.25%	60.62%

In table 2 there are presented results of control group boys' answers given after experiment.

As it can be seen in the table, the stated at the beginning of experiment situation with the presence of fragmentary knowledge and some skills in the field of health related and re-recreational physical culture has not changed. The level of knowledge of main part of the tested corresponds to 3<sup>rd</sup> and 4<sup>th</sup> levels.

On tables 3 and 4 we give results of control group girls' questioning at the beginning and at the end of experiment.

Table 3

*Results of control group girls' answers about the presence of knowledge and skills, required for practicing of physical activity, given at the beginning of experiment (n=160)*

Type of knowledge	The level of knowledge as per the obtained answers			
	1-st	2-nd	3-rd	4-th
Improvement and maintenance of own health	6.25%	10%	10.62%	73.13%
Increasing of workability	-	8.13%	15.62%	76.25%
Formation of character and will	-	6.87	10%	83.13%
Organization of physical culture leisure	4.37%	10%	16.25%	69.38%
Physical education and development of own children	-	9.38%	11.25%	79.37%

From table 3 we can see that at the beginning of experiment the level of knowledge and skills in the field of health related and re-recreational physical culture of main part of control group girls also corresponds to third and fourth levels. Knowledge, required for "Improvement and maintenance of own health" are presented in the following way: 1<sup>st</sup> level – 6.25 % of girl students, 2<sup>nd</sup> – 10 %, 3<sup>rd</sup> – 10.62 % and 4<sup>th</sup> level– 73.13 %. Concerning knowledge, required for increasing of workability, no one girl student appraised them by 1<sup>st</sup> level. By 2<sup>nd</sup> level - 8.13 %, by 3<sup>rd</sup> – 15.62 % and by 4<sup>th</sup> –76.25 %. The same situation was observed with knowledge, required for formation of character and will. The first level was not marked by any girl student, the 2<sup>nd</sup> – by– 6.87 %, 3<sup>rd</sup> – 10 % and 4<sup>th</sup> by– 83.13 %.

Such situation is probably connected with the fact that girls do not consider necessary to use means of physical culture for increasing of workability and formation of character and will as far as it is more characteristic for boys.

Knowledge, required for organization of physical culture leisure, 4.37 % of girls marked as corresponding to 1<sup>st</sup> level, 10 % related them to 2<sup>nd</sup> level, 16.25 % - to 3<sup>rd</sup> and 69.38 % to 4<sup>th</sup> levels. Knowledge for physical education and development of own children were not appraised by 1<sup>st</sup> level by any girl, by 2<sup>nd</sup> level – they were marked by 9.38 %, by 3<sup>rd</sup> – 11,25 % and by 4<sup>th</sup> – by 79.37 % of girl students.

After experiment the following results were obtained in girls' control group (see table 4). As we can see in the table, the stated at the beginning of experiment trend of 3<sup>rd</sup> and 4<sup>th</sup> level knowledge has not changed.

Knowledge, required for improvement and maintenance of own health were appraised by 1<sup>st</sup> level by 7.5 % of girl students, by 2<sup>nd</sup> – 10.62 %, by 3<sup>rd</sup> – 15.63 % and by 4<sup>th</sup> level – 66.25 %. Knowledge for increasing of workability were estimated by 1<sup>st</sup> level by 3.75 % girl students, by 2<sup>nd</sup> – 8.13 %, by 3<sup>rd</sup> – 26.87 % and by 4<sup>th</sup> level – 61.25 %. Concerning knowledge, required for formation of character and will, it should be noted that first level was not marked by any girl-student, 2<sup>nd</sup> level was marked by – 6.87 %, 3<sup>rd</sup> level – by 14.38 % and 4<sup>th</sup> – by 78.75 %. Knowledge, required for organization of physical culture leisure 6,25 % of girls appraised as corresponding to 1<sup>st</sup> level, 13.13 % – as corresponding to 2<sup>nd</sup> level, 20.62 % – to 3<sup>rd</sup> and 60 % – to 4<sup>th</sup> levels. Knowledge for physical education and development of own children were not appraised by 1<sup>st</sup> level by any girl, by 2<sup>nd</sup> level – by 9.38 %, by 3<sup>rd</sup> – by 16.25 % and by 4<sup>th</sup> – by 74.37 % of girl students.

Table 4

*Results of control group girls' answers about the presence of knowledge and skills, required for practicing of physical activity, given after experiment (n=160)*

Type of knowledge	The level of knowledge as per the obtained answers			
	1-st	2-nd	3-rd	4-th
Improvement and maintenance of own health	7.5%	10,62%	15.63%	66.25%
Increasing of workability	3.75%	8.13%	26.87%	61.25%
Formation of character and will	-	6.87%	14.38%	78.75%
Organization of physical culture leisure	6.25%	13.13%	20.62%	60%
Physical education and development of own children	-	9.38%	16.25%	74.37%

Below, in tables 5 and 6 there are presented results of questioning of experimental group boys at the beginning of experiment and after it.

Table 5

*Results of experimental group boys' answers about the presence of knowledge and skills, required for practicing of physical activity, given at the beginning of experiment (n=160)*

Type of knowledge	The level of knowledge as per the obtained answers			
	1-st	2-nd	3-rd	4-th
Improvement and maintenance of own health	14.38%	6.87%	30%	48.75%
Increasing of workability	4.37%	6.25%	28.13%	61.25%
Formation of character and will	4.37%	8.13%	16.87%	70.63%
Organization of physical culture leisure	10.62%	17.5%	26.88%	45%
Physical education and development of own children	-	6.87%	18.13%	75%

At the beginning of experiment the level of experimental group boys' knowledge, which are demanded for improvement and maintenance of health, was the following: 1<sup>st</sup> level – 14.38%, 2<sup>nd</sup> – 6.87 %, 3<sup>rd</sup> - 30 % and 4<sup>th</sup> – 48.75 %. Knowledge for increasing of workability, corresponding to 1<sup>st</sup> level were appraised by 4.37 % of students, to 2<sup>nd</sup> level – by 6.25 %, to 3<sup>rd</sup> – by 28.13 % and to 4<sup>th</sup> level – by 61.25 %. Knowledge, required for formation of character and will 4.37 % of students appraised by 1<sup>st</sup> level, while by 2<sup>nd</sup> level – 8.13 %, by 3<sup>rd</sup> – 16.87 % and by 4<sup>th</sup> level – 70.63 %. Knowledge, required for organization of physical culture leisure were estimated as per 1<sup>st</sup> level by 10.62 % of students, as per 2<sup>nd</sup> – 17.5 %, 3<sup>rd</sup> – 26.88 % and 4<sup>th</sup> - 45 %.

Knowledge, required for physical education of own children were not estimated as per 1<sup>st</sup> level by any student, as per 2<sup>nd</sup> – by 6.87 %, 3<sup>rd</sup> – by 18.13 % and 4<sup>th</sup> – by 75 %.

From table 6 it can be seen that after experiment no one from the questioned students marked knowledge, which would correspond to 4<sup>th</sup> level.

Table 6

*Results of control group girls' answers about the presence of knowledge and skills, required for practicing of physical activity, given after experiment (n=160)*

Type of knowledge	The level of knowledge as per the obtained answers			
	1-st	2-nd	3-rd	4-th
Improvement and maintenance of own health	61.25%	24.37%	14.38%	-

Increasing of workability	76.25%	13.13%	10.62%	-
Formation of character and will	74.37%	19.38%	6.25%	-
Organization of physical culture leisure	48.75%	41.87%	9.38%	-
Physical education and development of own children	20.62%	2.5%	51.88%	-

After experiment knowledge for improvement and maintenance of health were appraised as per 1<sup>st</sup> level by 61,25 % of experimental group boys, as per 2<sup>nd</sup> – 24.37 % and 3<sup>rd</sup> - и по 3- 14.38 %. Knowledge for increasing of workability, corresponding to 1<sup>st</sup> level, were marked by 76.25 % of students, to 2<sup>nd</sup> level – by 13.13 %, to 3<sup>rd</sup> – by 10.62 %. Knowledge, required for formation of character and will 74.37 % of students estimated by 1<sup>st</sup> level, while by 2<sup>nd</sup> level - 19.38 % and by 3<sup>rd</sup> – 6.25 %. Concerning organization of physical culture leisure as per 1<sup>st</sup> level 48.75 % of students appraised their knowledge, as per 2<sup>nd</sup> - 41.87 % and 3<sup>rd</sup> – 9.38 %. Knowledge, which are demanded for physical education of own children were estimated as per 1<sup>st</sup> level by 20.62 % of students, as per 2<sup>nd</sup> – by 27.5 % and 3<sup>rd</sup> – 51.88 %.

Below, in tables 7 and 8 we presented the results of questioning of experimental group girls.

According to the obtained data (see table 7) knowledge, required for improvement and maintenance of health were appraised as per 1<sup>st</sup> level by 16.87 %, as per 2<sup>nd</sup> – by 46.25 %, 3<sup>rd</sup> – by 28.75 % and 4<sup>th</sup> – 8.13 %. Knowledge for increasing of workability as per first level were appraised by 3.12 % of girl students, as per 2<sup>nd</sup> – by 13.13 %, 3<sup>rd</sup> – by 16.87 % and 4<sup>th</sup> – 66.88 %.

Concerning knowledge, required for formation of character and will, it should be noted that first level was marked only by 1.87 % of girls, 2<sup>nd</sup> – by 9.38 %, 3<sup>rd</sup> – by 10.62 %, 4 – by 78.13 %.

Knowledge about organization of physical culture leisure were appraised by 13 % of girls as corresponding to 1<sup>st</sup> level, 11.25 % – as corresponding to 2<sup>nd</sup>, 20.62 % – 3<sup>rd</sup>, and 55 % – 4<sup>th</sup> levels.

Knowledge for physical education and development of own children were nor appraised as per 1<sup>st</sup> level by any girl, as per 2<sup>nd</sup> level – by 17.5%, as per 3<sup>rd</sup> level – by 23.12% and as per 4<sup>th</sup> level – by 59.38 % of girl students.

Table 7

*Results of experimental group girls' answers about the presence of knowledge and skills, required for practicing of physical activity, given before experiment (n=160)*

Type of knowledge	The level of knowledge as per the obtained answers			
	1-st	2-nd	3-rd	4-th
Improvement and maintenance of own health	16.87%	46.25%	28.75%	8.13%
Increasing of workability	3.12%	13.13%	16.87%	66.88%
Formation of character and will	1.87%	9.38%	10.62%	78.13%
Organization of physical culture leisure	13.13%	11.25%	20.62%	55%
Physical education and development of own children	-	17.5%	23.12%	59.38%

After experiment we registered increase of level of the acquired by experimental group girls knowledge (see table 8).

Table 8

*Results of experimental group girls' answers about the presence of knowledge and skills, required for practicing of physical activity, given after experiment (n=160)*

Type of knowledge	The level of knowledge as per the obtained answers			
	1-st	2-nd	3-rd	4-th
Improvement and maintenance of own health	75.62%	18.75%	5.63%	-
Increasing of workability	85%	15%	-	-
Formation of character and will	40%	53.13%	6.87%	-
Organization of physical culture leisure	68.12%	25.63%	6.25%	-
Physical education and development of own children	64.37%	26.25%	9.38%	-

Knowledge for improvement and maintenance of health 75.62% of girl students appraised by 1<sup>st</sup> level, 18.75% - by 2<sup>nd</sup> and 54.63% - by 3<sup>rd</sup> level. Knowledge for increasing of workability were estimated as corresponding to 1<sup>st</sup> level by 85% and 15% referred them to 2<sup>nd</sup> level.

Concerning formation of character and will: 40 % estimated knowledge as 1<sup>st</sup> level, 53.13 % – as 2<sup>nd</sup> level and 6.87 % – as third level. Knowledge about organization of physical culture leisure were appraised as 1<sup>st</sup> level by 68.12 % of girl students, as 2<sup>nd</sup> – 25.63 % and as 3<sup>rd</sup> – 6.25 %. Knowledge, required for physical education and development of own children, were estimated according to 1<sup>st</sup> level by 64.37 %, according to 2<sup>nd</sup> – by 26.25 %, to 3<sup>rd</sup> – by 9.38 %.

Let us regard results of appraisal of skills and abilities, which are required for beginning of physical culture activity, by boys and girls of control group before and after experiment (see tables 9, 10, 11 and 12).

At the beginning of experiment control group boys appraised their skills and abilities in the following way.. The question “Make program of own health related trainings, applying only physical culture means» was answered positively by 9.38% of students, i.e. they marked the presence of this ability; 58.12% answered “No” and 32.5% wrote “Difficult to answer”.

With it, it is necessary to pay attention to the fact that if students answer “Yes” on this or some other ability, one should consider that their knowledge are fragmentary, not complete.

Therefore, abilities to fulfill some kind of physical culture activity are restricted by insufficient volume of available knowledge.

Continuing to analyze questioning results, given in table 9, it is necessary to pay attention to the fact that by all other items, most of students chose answer “No” to question about the presence of the mentioned competences.

Table 9

*Results of control group boys’ answers about the presence of skills and abilities, required for beginning of physical activity, given before experiment (n=160)*

Skills and abilities	Yes	No	Difficult to answer
Make program of own health related trainings, applying only physical culture means	9.38%	58.12%	32.5%
Make program of own trainings, including different methods tempering, rational eating, psycho-training, self-massage, etc.	9.38%	46.25%	44.7%
Include in the program health related means, oriented on overcoming of diseases, which already are present.	5%	69.37%	25.3%
Replenish own knowledge with new ones in the field of health related culture	6.87%	10.63%	82.5%
Carry out control of own state of health	1.88%	88.12%	10%
Make programs of health related trainings for friends, members of family	-	80.62%	19.38%
Provide first medical aid	-	75.62%	24.38%

Thereafter, control group boys can hardly make complex health related physical culture program of own trainings, they can not fulfill full fledged self-control of own health, if executing physical culture exercises according to program of their trainings.

Table 10

*Results of control group boys’ answers about the presence of skills and abilities, required for beginning of physical activity, given after experiment (n=160)*

Skills and abilities	Yes	No	Difficult to answer
Make program of own health related trainings, applying only physical culture means	10.63%	60%	29.37%
Make program of own trainings, including different methods tempering, rational eating, psycho-training, self-massage, etc.	9.38%	43.12%	4.5%
Include in the program health related means, oriented on overcoming of diseases, which already are present.	5%	63.75%	31.25%
Replenish own knowledge with new ones in the field of health related culture	10%	13.75%	76.25%
Carry out control of own state of health	11.88%	68.12%	20%
Make programs of health related trainings for friends, members of family	-	71.88%	28.12%
Provide first medical aid	-	75.62%	24.38%

In table 10 there are presented results of control group boys’ questioning after experiment. The whole picture has not changed. Most of students, answering the questions of questionnaire, chose answer “No”.

Table 11

*Results of control group girls’ answers about the presence of skills and abilities, required for beginning of physical activity, given before experiment (n=160)*

Skills and abilities	Yes	No	Difficult to answer
Make program of own health related trainings, applying only physical culture means	8.75%	50.62%	40.63%
Make program of own trainings, including different methods tempering, rational eating, psycho-training, self-massage, etc.	8.75%	44.37%	46.88%

Include in the program health related means, oriented on overcoming of diseases, which already are present.	5.63%	54.37%	40%
Replenish own knowledge with new ones in the field of health related culture	13.12%	11.88%	75%
Carry out control of own state of health	8.12%	71.88%	20%
Make programs of health related trainings for friends, members of family	-	81.87%	18.13%
Provide first medical aid	11.88%	72.5%	15.62%

From table 11 we can see that most of girls, as well as boys, manifest absence of skill and abilities, which are required for realization of physical culture activity. For example only 8.75% of girls students can make own program of health related physical culture trainings, applying means of physical culture. 50.62 % can not do it and for 40.63 % it was difficult to answer. With it, the question, if they can fulfill self control of own health state was answered positively by 8.12 %, negatively – by 71.88% and “Difficult to answer” – by 20%. 11.88 % of girls answered that they can render first medical aid.

Table 12

*Results of control group girls' answers about the presence of skills and abilities, required for beginning of physical activity, given after experiment (n=160)*

Skills and abilities	Yes	No	Difficult to answer
Make program of own health related trainings, applying only physical culture means	10.63%	50.62%	38.75%
Make program of own trainings, including different methods tempering, rational eating, psycho-training, self-massage, etc.	10.63%	37.5%	51.87%
Include in the program health related means, oriented on overcoming of diseases, which already are present.	8.12%	51.25%	40.63%
Replenish own knowledge with new ones in the field of health related culture	13.12%	16.88%	70%
Carry out control of own state of health	9.38%	69.37%	21.25%
Make programs of health related trainings for friends, members of family	-	76.87%	23.13%
Provide first medical aid	11.88%	76.87%	11.25%

In table 12 there are presented the data, which witness about absence of positive dynamics in the field of formation of skills and abilities, required for physical culture activity.

So, such situation, which is characterized by deficit of skills and abilities after experiment, peculiar for both boys and girls of control group, can be explained by the fact, that their level of knowledge and some skills in the field of health related and re-recreational physical culture corresponds to third and fourth levels. Therefore, fragmentary character or absence of knowledge do not facilitate formation of skills and abilities, which would be required for starting of full fledged physical culture activity, that is witnessed by the obtained results of the research.

Below, in tables 13 and 14 we give results of questioning of experimental group boys before and after experiment.

Coming from the data, given in table 13, we can conclude that at the beginning of experiment experimental group boys had insufficient level of skills and abilities for starting of physical culture activity. Main part of students could not either make program of own health related trainings, with using both: physical culture means and different methods of tempering, psycho-training, self-massage and so on, or realize self-control of the state of own organism during health related physical culture trainings.

Table 13

*Results of control experimental boys' answers about the presence of skills and abilities, required for beginning of physical activity, given before experiment (n=160)*

Skills and abilities	Yes	No	Difficult to answer
Make program of own health related trainings, applying only physical culture means	5%	74.37%	20.63%
Make program of own trainings, including different methods tempering, rational eating, psycho-training, self-massage, etc.	5%	61.25%	33.75%
Include in the program health related means, oriented on	4.37%	88.13%	7.5%

overcoming of diseases, which already are present.			
Replenish own knowledge with new ones in the field of health related culture	5%	15.63%	79.37%
Carry out control of own state of health	2.5%	83.13%	14.37%
Make programs of health related trainings for friends, members of family	-	93.13%	6.87%
Provide first medical aid	-	81.88%	18.12%

This situation can be explained by deficit or insufficiency of students' necessary knowledge.

Let us pay attention to the following fact. The level of activation of self-regulating mechanisms is an integral manifestation of main components of psychic load. Exactly owing to this fact we consider to be important to study first of all psychic mechanisms of human self-regulation in the process of human adapting to conditions of life activity, including physical culture activity.

Table 14

*Results of experimental group boys' answers about the presence of skills and abilities, required for beginning of physical activity, given after experiment (n=160)*

Skills and abilities	Yes	No	Difficult to answer
Make program of own health related trainings, applying only physical culture means	100 %	-	-
Make program of own trainings, including different methods tempering, rational eating, psycho-training, self-massage, etc.	100 %	-	-
Include in the program health related means, oriented on overcoming of diseases, which already are present.	75.63 %	6.87 %	17.5 %
Replenish own knowledge with new ones in the field of health related culture	79.87 %	-	23.13 %
Carry out control of own state of health	86.25 %	-	13.75 %
Make programs of health related trainings for friends, members of family	39.38 %	-	60.62 %
Provide first medical aid	32.5 %	28.75 %	38.75 %

In table 14 we can see that by the end of experiment experimental group boys have skills and abilities, required for organization and starting of physical culture activity in the process of formation.

In table 15 we present results of experimental group girls' questioning before experiment. The obtained results witness about absence of required skills and abilities.

For example only 10% of girl students could make program of own health related trainings with application of physical culture means.

8.12% of girls could make own program with application of different tempering methods, psycho-training, self-massage and so on. Only 5.63% could be able to fulfill reliable self-control of own health state.

It should be noted that the level of their knowledge in the field of health related and re-recreational physical culture corresponded to third and fourth levels.

Table 15

*Results of experimental group girls' answers about the presence of skills and abilities, required for beginning of physical activity, given before experiment (n=160)*

Skills and abilities	Yes	No	Difficult to answer
Make program of own health related trainings, applying only physical culture means	10%	65%	25%
Make program of own trainings, including different methods tempering, rational eating, psycho-training, self-massage, etc.	8.12%	60%	31.88%
Include in the program health related means, oriented on overcoming of diseases, which already are present.	3.75%	68.12%	28.13%
Replenish own knowledge with new ones in the field of health related culture	9.38%	35.62%	55%
Carry out control of own state of health	5.63%	51.25%	43.12%
Make programs of health related trainings for friends, members of family	-	88.12%	11.88%
Provide first medical aid	8.12%	28.13%	63.75%

With acquiring of knowledge, which, by the end of experiment, corresponded to first and second levels, skills and abilities also were forming, that is witnessed by the results, given in table 16. Already 100% of girls are able to make own program of health related trainings with application of physical culture means.

Non-professional physical culture education of girl students, which was considered in pedagogical experiment as an important part of personality-oriented physical education, should be understood as level of mastering of competences, motion skills and abilities, physical condition, which permit to control the state of own health as well as stable active-positive attitude to physical culture, required for formation of student's personality, his (her) adapting to professional activity.

Table 16

*Results of experimental group girls' answers about the presence of skills and abilities, required for beginning of physical activity, given after experiment (n=160)*

Skills and abilities	Yes	No	Difficult to answer
Make program of own health related trainings, applying only physical culture means	100%	-	-
Make program of own trainings, including different methods tempering, rational eating, psycho-training, self-massage, etc.	97.5%	-	2.5%
Include in the program health related means, oriented on overcoming of diseases, which already are present.	86.25%	-	13.75%
Replenish own knowledge with new ones in the field of health related culture	78.75%	-	21.25%
Carry out control of own state of health	83.13%	-	16.87%
Make programs of health related trainings for friends, members of family	63.12%	-	36.88%
Provide first medical aid	8.12%	28.13%	63.75%

After experiment 97.5% of girls were ready to make program of trainings with application of tempering, psycho-training, self-massage and so on, while 83.13% of girls became able to realize self-control of the state of own health.

### Summary

The carried out research witnesses that trainings based on personality-oriented principles of physical education permitted to eliminate the gap between knowledge, skills and abilities. Students of experimental groups, in contrast to students of control groups, acquired skills, which are required for starting of physical culture activity.

We connect high results in formation of personality's physical culture, obtained in the course of pedagogical experiment, with accentuated attention to organization of non professional physical education as an important component of personality oriented physical education.

By results of experiment, knowledge of experimental group students correspond to first level (meaning presence of profound and complete knowledge, skills and abilities, which are ready for their usage), skills for fulfillment of most spread physical exercises have been formed. Skills and abilities, necessary for starting of own physical culture activity, are gradually being formed.

*The prospects of further researches* imply activity, oriented on rising of level of university students' skill, abilities and knowledge as well as formation of skills and abilities, required for starting of own physical culture activity.

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