

## DYNAMICS OF VALUES IN PHYSICAL TRAINING SCHOLARSHIP OF SENIOR PRESCHOOLERS UNDER THE INFLUENCE OF SET OF ACTIVITIES CONNECTED WITH PHYSICAL SCHOLARSHIP OPTIMIZATION

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**Annotation.** *Purpose:* to consider changes of values in physical scholarship of senior preschoolers under the influence of experimental set of activities. *Material:* 117 children of preschool age took place in the experiment. *Results:* achieved actual changes in values of theoretical knowledge in physical culture. Integral indicator of theoretical knowledge of physical culture has improved by 52% and amounted to 20.5 points. Level of mastery of vital motor skills significantly altered, especially in the results of races - by 42% and jumps - 41%. After one uses means of children fitness there were marked significant improvements of basic values of vitally important skills and habits. *Conclusions:* set of held activities on optimization physical education proved its efficiency that makes it possible to recommend its use in preschool educational establishments.

**Keywords:** physical culture, education, complex, motor, skills, children, fitness.

### Introduction

In opinion of most of scientists [6; 8; 11; 12] mastering of physical culture knowledge, which is intellectual basis of physical culture, is the main component of physical culture education, owing to its influence on formation of conscious children's attitude to physical culture trainings and independent physical exercises' trainings in everyday life.

Concerning pre school age, physical culture education is oriented on formation of children's knowledge about physical culture principles with their understanding of physical exercises' sense, conscious attitude to their health, to their physical condition on the base of their newly formed motion skills [8].

Demand in renewal of modern pre school education's content, in particular physical culture education, has become especially acute because at present there is worsening of "nation's health" in Ukraine, as integrative indicator of physical, mental and social health of citizens and especially pre school age children [5].

As S.O. Filippova notes, at present in pre school establishments in great majority of cases we can see physical culture trainings, connected, mainly, with realization of children's motion functioning. However, all system of children's physical culture education shall be oriented on formation of pre school children's knowledge in the field of physical culture alongside with solution of health related tasks [13].

In opinion of N.F. Denysenko, even in pre school age a child is able to have careful attitude to own health, providing he has required knowledge, understands his physical and mental condition, knows how to take care of body, has hygienic skills [4].

As per ideas of scientists [2; 3; 7; 9; 15; 16], traditional approaches to health related physical culture work with pre school children often do not meet modern requirements and demand replacement by such approaches, which would render more effective influence on health, physical fitness, intellectual and moral child's development, formation of his ideas about healthy life style.

Recent years many scientists (T.S. Ovchinnikova, A.A. Potapchuk, 2002; S.O. Filippova, T.V. Volosnikova, 2006; T.V. Levchenkova, 2007; O.M. Bayer, K.L. Krutyi, 2008; Ye.G. Saykina, 2012) have been paying great attention to physical education and children's fitness training of pre school children.

In our opinion studying of children fitness's influence on physical culture education of senior pre school children is an urgent problem and requires more profound researching.

The present researches were conducted as per plan of scientific & research works of SumSPU, named after A.S. Makarenko, of Ministry of education and science of Ukraine for 2007-2011, by topic "Optimization of education and teaching process of different groups of population by means of physical culture", approved by state registration department of Ukrainian institute of scientific-technical information in Kiyv (state registration No. 0107U002255) and "Improvement of health and physical fitness of different groups of population by means of physical culture" (state registration No. 0111U005736) for 2011 – 2015.

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

*The purpose of the research* is determination of influence of measures' complex for optimization of physical culture trainings on indicators of physical education of senior pre school children.

*The tasks of the research:*

1. Determination of structure and tasks of experimental complex for optimization of physical culture education.
2. Studying of changes of theoretical knowledge level, motion skills of 5-6 years old children under influence of measures for optimization of physical culture education.

*The methods and organization of the researches:* analysis of scientific-methodic literature, pedagogic experiment, testing [8; 12], methods of mathematical statistics.

The researches were carried out in the period from September 2012 to May 2013 on the base of pre school establishments №18 and №28 of Sumy. In the research 117 children of senior pre school age took part: 58 children – control group and 59 – experimental group

### Results of the researches

For rising of physical culture education level of senior pre school age children we developed complex of measures, intended for creation of special conditions for mastering of physical culture's intellectual values, for formation of vitally important motion skills and abilities and increasing of interest to children fitness's physical trainings.

The complex of measures includes four parts:

1. Theoretical (mastering of necessary knowledge in physical culture).
2. Practical (training of vitally important motion skills and abilities by means of children fitness).
3. Control.
4. Work with parents.

Considering age peculiarities of children we worked out such topics” “Construction of human organism”, “Personal hygiene”, “Travel to country Eating” “Physical culture and sports in human life”, “Health and safety at physical culture trainings”. In the course of experiment these topics were systematically elucidated at physical culture and circle trainings, at morning exercises; in order to fix them we gave home and independent tasks, fulfillment of which was controlled by parents.

Main task of practical part of the complex was improvement of vitally important motion skills and abilities by means of children fitness. For this purpose the content of main trainings at experimental group was supplemented by elements of children fitness, to be more exact – fit ball gymnastics, animal-aerobics, game fitness.

Control group children were trained as per traditional programs [1; 10] and attended circle’s dance trainings.

At first stage of the research we determined initial level of children’s physical culture education. For determination of physical culture theoretical knowledge we carried out testing by methodic of I.N. Morgun (see table 1); maximal mark for every rest was 5 points [8].

Table 1

*Indicators of physical culture knowledge of 5-6 years old children at the beginning of experiment*

Tests	CG (n=58)	EG (n=59)	P
	Points ( $\bar{x} \pm m$ )		
1. Cognition of oneself – is cognition of the world	2.4±0.10	2.4±0.09	> 0.05
2. I and my health	2.7±0.08	2.7±0.08	> 0.05
3. Travel to country Eating	2.8±0.08	3±0.07	> 0.05
4. Cleanness is the guarantee of health	2.6±0.08	2.5±0.08	> 0.05
5. Health and safety	3±0.09	2.8±0.07	> 0.05
Integral indicator	13.8±0.36	13.5±0.33	> 0.05

Notes: CG – control group; EG – experimental group

Analysis of initial results showed low level of theoretical knowledge on physical culture in both groups by the following topics: “Cognition of oneself – is cognition of the world “, -2.4 points; “I and my health “ – 2.7 points; “Cleanness is the guarantee of health” – 2.6 points (control group) and 2.5 points – experimental group. Mean arithmetic by topic “Travel to country Eating” of control group was 2.8 points, and 3 points – experimental group. By results of CG and EG children’ answers to fifth test “Health and safety” we also obtained low level of knowledge.

After application of complex for optimization of physical culture education, one of important results was confident changes of physical culture theoretical knowledge indicators (see table 2). Analysis of these results showed that integral indicator of physical education of EG children improved by 39.4% in comparison with CG children ( $p < 0.05$ ).

Table 2

*Changes of indicators of theoretical knowledge in control and experimental groups*

Tests	Points( $\bar{x} \pm m$ )		Changes %	p
	CG	EG		
1. Cognition of oneself – is cognition of the world	2.5±0.08	4±0.09	60	<0.05
2. I and my health	2.9±0.08	4±0.07	38	<0.05
3. Travel to country Eating	3±0.06	4.2±0.09	40	<0.05
4. Cleanness is the guarantee of health	2.8±0.07	4±0.09	43	<0.05
5. Health and safety	3.2±0.07	4.2±0.08	31	<0.05
Integral indicator	14.7±0.31	20.5±0.3	39.4	<0.05

Notes: CG – control group; EG – experimental group

After experiment in EG mean marks by main topics were: “Travel to country Eating” and “Health and safety» - 4.2 points ( $p<0.05$ ); “Cognition of oneself – is cognition of the world” – 4 points ( $p<0.05$ ); “I and my health” – 4 points ( $p<0.05$ ); “Cleanness is the guarantee of health” – 4 points ( $p<0.05$ ).

In control group we noted insignificant improvement of theoretical knowledge level – by 6.5%, but these changes were not statistically confident ( $p>0.05$ ).

By methodic of Yu.K. Chernyshenko [12] in the tested groups we determined indicators of vitally important motion skills and abilities (running, walking, jumps, throwing, climbing) at the beginning of experiment and after realization of measures for optimization of physical education of senior pre school age children. Every test was evaluated by three points’ system with minimal mark of 1 point.

At the first stage of the researches there were no statistically confident differences by all indicators. The obtained results witness that level of motion skills and abilities in both groups did not exceed 2.1 points by three-point scale (see table 3).

Analyzing mean values of vitally important motion skills and abilities we can note that in experimental group there happened statistically confident changes. It should be noted that application of fit ball gymnastics, game fitness and animal aerobics at physical culture trainings and at trainings in circles, significantly improved motion skills and abilities of pre school age children ( $p<0.05$ ). Running results statistically confidently improved by 42%, jumps – by 41%, walking – by 36%, throwing and climbing – by 37%.

Table 3

*Dynamic of indicators of vitally important motion skills and abilities in the course of experiment*

Tests	CG (n=58)			EG (n=59)		
	before	after	Difference %	before	after	Difference %
Walking	1,92±0,04	2,02±0,04	5,2**	1,93±0,04	2,62±0,04	36*
Running	1,96±0,04	2,08±0,04	6**	1,97±0,04	2,72±0,03	42,4*
Long jump from the spot	1,7±0,05	1,82±0,04	7**	1,72±0,04	2,42±0,04	41*
Throwing of ball	1,78±0,06	2±0,06	12,3*	1,74±0,05	2,39±0,04	37,3*
Climbing of wall bars	2,11±0,07	2,28±0,07	8**	2,04±0,04	2,8±0,04	37,2*

Notes : CG – control group; EG – experimental group \* – level of confidence  $p<0.05$ , \*\* – level of confidence  $p>0.05$

In control group confident changes were obtained in test for throwing ( $p<0.05$ ), which improved by 12.3%. Also, we noted insignificant improvements in results of running, walking, jumps and climbing ( $p>0.05$ ).

After conducting of complex of measures for optimization of physical culture education, experimental group children showed higher level of mastering of theoretical knowledge and motion skills than those, who were trained by traditional program that witness about effectiveness of the conducted measures.

#### Conclusions:

1. In order to improve theoretical knowledge on physical culture, vitally important motion skills and abilities, for increasing of senior pre school age children’s interest to physical trainings we worked out complex of measures, which consists of 4 parts: theoretical, practical, control and work with parents.

2. Implementation of this complex in main forms of pre school age children’s trainings resulted in confident change of theoretical knowledge level by all topics. Integral indicator of theoretical knowledge on physical culture in EG confidently improved by 52% and was 20.5 points that corresponds to high level. Level of mastering of vitally important motion skills and abilities also statistically confidently changed, especially in results of running – by 42% and jumps – by 41%.

*The prospects of further researches* will be connected with further studying of means of children fitness in order to optimize physical culture education of pre school age children.

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