

Motive activity as the criterion of efficiency of introduction of the technology which is aimed at the development of professionally significant physical qualities of pupils of clothing manufacture in vocational-technical schools

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Purpose: to carry out the analysis of results of researches of the forming experiment, and in particular, indicators of motive activity of respondents.

Material & Methods: contingent: pupils of "Balty vocational-technical agrarian school" of Balty of the Odessa Region – 40 girls of the I course who do not go in for sports; methods: analysis of literature, pedagogical methods of the research, questioning, methods of mathematical statistics.

Results: the data are analyzed, which are obtained in the forming experiment on the determination of level of motive activity by means of Framingham technique as one of the criteria of efficiency of introduction of the technology, which is directed to the improvement of professionally significant physical qualities of pupils of vocational-technical schools of clothing manufacture. Results of the questioning, which is directed to the identification subjective opinions of respondents concerning their motive activity, are analyzed. The results of questioning of pupils about the main conditions are presented, which are necessary for the involvement of students to the active physical improvement.

Conclusions: the received results confirm the efficiency of the developed and introduced technology.

Keywords: technology, professionally applied physical preparation, motive activity, professionally significant physical qualities, pupils.

Introduction

The tendency to the decrease in motive activity and the increase in psycho-emotional tension in the course of study is observed every year at modern student's youth [1; 3; 6]. Physical culture (PC) exerts the considerable impact on memory strengthening, increase in working capacity, increase of mental abilities due to the activation of all psychophysiological processes of organism. Traditional techniques of the training process are focused on the performance of standard set of exercises that does not allow opening physical qualities of students completely. As a result, the decrease in motivation of students to physical activity appears [9].

N. V. Fomicheva, A. G. Polivayev, N. A. Volokhina, A. N. Rodionov see one of the directions of the improvement of system of physical education and the organization of educational process for physical culture in the development and implementation of such programs of physical education, which are directed to the formation of the creative relation to PC on the basis of the developing training, since preschool age and finishing with students, result of what has to become education at the engaged responsible attitude to themselves, to health as to the guarantor of vital, professional wellbeing. Universal promotion of HLS, social advertizing, demonstration of opportunities of physical culture for preservation, maintenance of health, and also, in many cases can become mechanisms

of the implementation of programs for PC, also can be presented as remedies and rehabilitations; the saturation of programs of PC for the improving techniques allowing to level influence of such negative factors as catarrhal diseases, vision disorders, typical home accidents, smoking, etc.; the use of the latest technologies for the increase in interest and formation of motivation to PC; the integrated nature of training with use of means of PCS [2; 5; 10].

Communication of the researches with scientific programs, plans, subjects

The subject of the article is developed according to the Consolidating plan of the RW in the sphere of physical culture and sport for 2016–2020 on the subject 3.13. "Theoretic-methodical bases of health-forming technologies in the course of physical education of different groups of the population", the number of the state registration is 0116U001615.

The purpose of the researches:

to check the efficiency of introduction of the technology which is aimed at the development of professionally significant physical qualities of pupils of clothing manufacture of technical schools.

Task of the researches. To define and to analyze the level of

motive activity of pupils as one of the criteria of the efficiency of introduction of the technology.

Material and Methods of the research

The researches were conducted on the basis of the state educational institution of “Balty vocational-technical agrarian school” of Balty of the Odessa Region. 40 girls of the I course (16–17 years old), who do not go in for sports, distributed on the main and control groups on 20 people in everyone, participated in the experiment.

Research methods: analysis of scientific and methodical literature, pedagogical methods of the research, questioning, assessment of the level of the motive activity (MA) by the Framingham technique. Methods of mathematical statistics (Shapiro–Wilk test was used for check of selections on compliance to the normal law of distribution, parametrical criterion of Student – for the definition of reliability of distinctions between selections).

Results of the research and their discussion

Within carrying out researches on the subject “Professionally applied physical preparation of pupils of technical schools of sewing production” We developed and approved the technology in the educational process, which is aimed at the development of professionally significant physical qualities of pupils of technical schools of clothing manufacture [7] (pic. 1).

The analysis of the data, which were obtained as a result of the forming experiment, was carried out after the development and approbation of technology. One of the criteria of efficiency of the offered technology, in our opinion, is the indicator of the level of motive activity (LMA) [8] (pic. 2). The following dynamics of indicators of the structure of daily motive activity in the control group was received: the average value of

time which is carried out on the classification as the basic IMA before the experiment made 7,15 h, after – 7,2 h; sedentary level during the experiment decreased from 6,75 h till 6,4 h. At the same time the average values of small level increased from 8,15 h till 8,25 h, the average level increased from 1,7 h till 1,95 h, and high decreased from 0,25 h till 0,2 h.

In the main group: the spent time on classification as basic IMA made 7,1 h before the experiment, after – 7,2 h. Indicators of the sedentary and the small levels decreased – sedentary from 6,85 h till 6,6 h, and small – from 8 h till 7,3 h respectively. The values describing the average and the high levels increased: average – of 1,8 h till 1,9 h, and high – from 0,25 h till 1 h. At the same time distinctions between groups did not differ before the experiment statistically, distinctions in the control group between indicators before and after the experiment changed statistically doubtfully, and in the main group – statistically reliable changes of indicators IMA are confirmed ($t=3,99$, $p<0,05$).

As well as in the stating experiment [4], the subjective estimate of motive activity was carried out in the CG and MG by means of the questioning (tab. 1).

Results of the poll of CG didn’t change considerably in comparison with the data of the survey, which was conducted in the stating experiment and showed that 70% “very seldom, never” do morning exercises, at the same time 25% do it “sometimes” and 5% of examinees – “always, regularly”. 80% of girls do evening gymnastics “very seldom, never”, 15% – “sometimes” and 5% – “always, regularly”. 80% of respondents answered the question about the visit of classes by physical exercises in volume of 4 h per week “very seldom, never”, 10% – “sometimes” and 10% – “always, regularly”. The same results gave the answers to the question about classes by recovery gymnastics (after study, work).

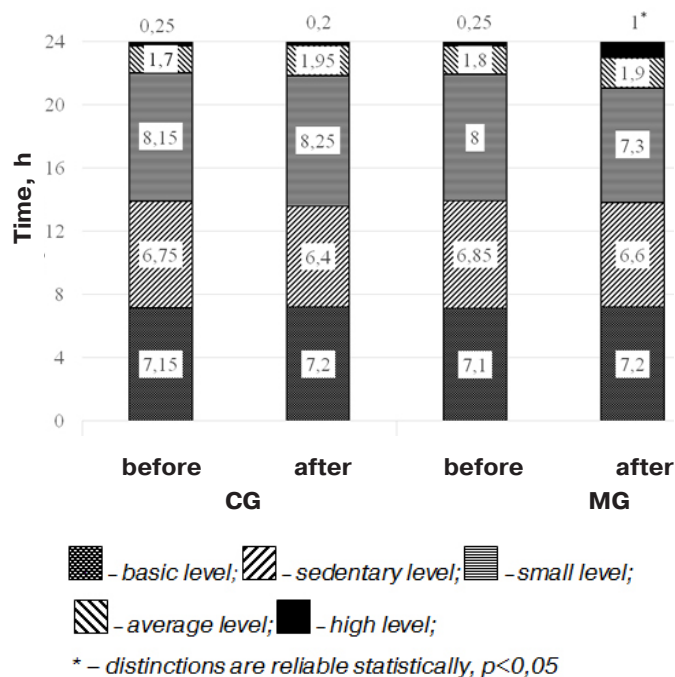
The information on visit by girls of sports or improving trainings was the following: 75% attend classes “very seldom, never”, 15% – “sometimes” and only 10% – “always, regularly”.

The data on regularity of passing training (the accelerated walking to school in combination with various physical exercises) at girls were distributed as follows: only 25% of pupils are engaged in passing training “very seldom, never”, 40% – “sometimes” and 35% – “always, regularly”.

At the same time the questions of introduction gymnastics (before study, work) and sports pauses during study, employed the present data: 5% of examinees hold these events “always, regularly”, 10% – “sometimes” and 85% – “very seldom, never”.

In the subjective opinion of respondents the week volume of rational motive activity, equal 8–10 h, made at 25% of girls “always, regularly”, 30% – “sometimes” and 45% – “very seldom, never”.

Along with it, the poll in MG after introduction of the offered technology showed that 25% of pupils do morning exercises “always, regularly”, 25% – “very seldom, never” and 50% – “sometimes”. The evening gymnastics is done by 20% “always, regularly”, 50% – “sometimes” and 30% – “very seldom, never”. 80% of girls attend classes by physical exercises “always, regularly” in volume of 4 h per week – 10% “sometimes”



Pic. 2. Comparative analysis of the structure of daily motive activity of the control and the main groups

PURPOSE – the assistance in preparation of the harmoniously developed highly qualified specialists, the development of professionally significant physical qualities, the increase in level of theoretical knowledge, the formation of positive steady motivation of pupils to classes by physical culture.

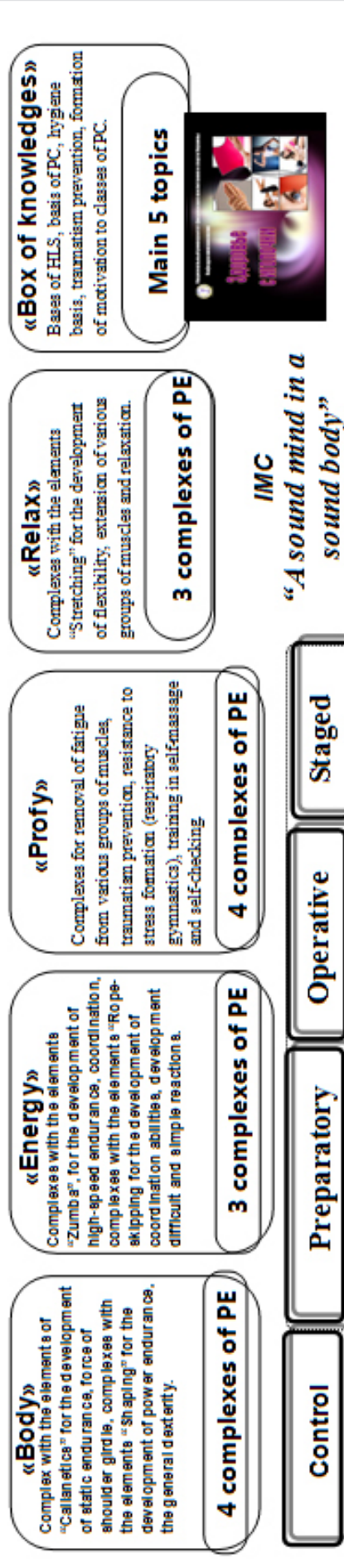
TASKS – the development of professionally significant physical qualities of pupils; the formation of knowledge and observance of bases of healthy lifestyle; the formation of knowledge of bases of professionally applied physical preparation and ability to put them into practice; the formation of skills to independent classes by physical exercises; the preservation and the improvement of physical condition of pupils.

PRINCIPLES: humanistic orientation, systemacity, sequence, availability, priority of requirement, motives and interests of the personality, improving orientation, communication of physical education with other kinds of activity and employment of the person.

STAGES

<p>Preparatory (4 weeks) Assessment of physical conditions of pupils. Development of technology. Development of IMC "A sound mind in a sound body". Adaptation of organism engaged to exercise stresses</p>	<p>Main (25 weeks) Increase of the level of PP, development of physical qualities, use of complexes of physical exercises taking into account specifics of future profession, training in self-checking technique, formation of the theoretical knowledge, and increase in motivation. Formation of skill of work with IMC "A sound mind in a sound body"</p>	<p>Final (4 weeks) Preservation of the reached level of physical condition and maintenance of motivation to classes. Uses of IMC "A sound mind in a sound body" for self-checking</p>
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Criteria of efficiency: LPH, LMA, PP, physical efficiency and mental working capacity, motivation, etc.

Fig. 1. The flowchart of the technology, which is aimed at the development of professionally significant qualities of pupils of clothing manufacture

Table 1

Results of the poll of respondents of the forming experiment on rational motive activity, %

Rational motive activity	CG, n=20			MG, n=20		
	Always, regularly	Sometimes	Very seldom, never	Always, regularly	Sometimes	Very seldom, never
Morning exercises	5	25	70	25	50	25
Evening gymnastics	5	15	80	20	50	30
Classes by physical education in volume of 4 h per week	10	10	80	80*	10	10
Sports or improving training	10	15	75	25	65	10
Passing training (the accelerated walking to school in combination with various physical exercises)	35	40	25	55	40	5
Introduction gymnastics (before study, work)	5	10	85	80*	15	5
Sports pauses during study, work	5	10	85	90*	10	-
Recovery gymnastics (after study, work)	10	10	80	80*	15	5
The week volume of rational motive activity – 8–10 h	25	30	45	75*	15	10

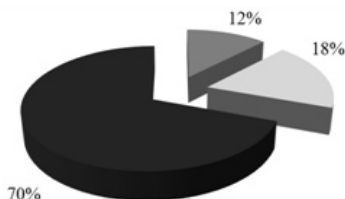
Note. * – distinctions are reliable statistically, $p < 0,05$.

and 10% “very seldom, never”.

25% of girls answered the question about visit of sports or improving trainings in MG “always, regularly”, 65% – “sometimes” and 10% – “very seldom, never”. The data on regularity of passing training (the accelerated walking to school in combination with various physical exercises) were distributed as follows: only 5% of pupils are engaged in this way “very seldom, never”, 40% – “sometimes” and 55% do it “always, regularly”.

The answers to the questions about visit of introduction gymnastics (before study, work) and recovery gymnastics (after study, work) showed the identical results: 80% of girls – “always, regularly”, 15% – “sometimes” and 5% – “very seldom, never”. 90% of examinees did pauses during study, works “always, regularly” and 10% – only “sometimes”.

In the subjective opinion of respondents (pic. 3) the week volume of rational motive activity – 8–10 h deserved the answer “always, regularly” at 75% of people, 15% – “sometimes” and 10% – “very seldom, never”.



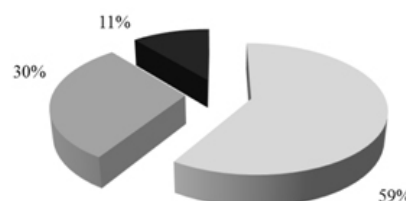
Pic. 3. Distribution of respondents by results of the questioning in CG (classes by rational motive activity), %:

■ – very seldom, never; □ – sometimes;
 ■ – always, regularly.

By the consideration of the overall picture of motive activity of girls in CG (pic. 2) it is possible to note that 70% of respondents have no systematic motive activity, 18% are engaged

sometimes and only 12% are engaged regularly.

We received the following results at the creation of the general MA in MG, pic. 4.



Pic. 4. Distribution of respondents by results of the questioning in MG (classes by rational motive activity), %:

■ – very seldom, never; □ – sometimes;
 ■ – always, regularly.

Results of the poll of MG showed that only 11% of respondents are not engaged in motive activity, 30% are engaged sometimes and 59% are engaged in MA always and regularly.

Conclusions

The reliable improvements of the level of motive activity are revealed ($p < 0,05$) as a result of the introduction of the developed technology in the educational process at girls of the main group. At the same time girls of the control group had no statistically significant positive dynamics of indicators ($p > 0,05$). The presented results confirm the efficiency of the developed and introduced technology, which is aimed at the development of professionally significant physical qualities of pupils of technical schools of clothing manufacture.

Prospects of further research in this direction. To carry out the check of all criteria of the efficiency of introduction of the technology, which is aimed at the development of professionally significant physical qualities of pupils of technical schools of clothing manufacture.

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