

medical-biological problems of physical training and sports

FORMATION OF CULTURE MOTOR ACTIVITY OF PUPILS OF 5-6 CLASSES BY MEANS OF BASIC GYMNASTICS

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Annotation. <u>Purpose</u>: methodological conditions justify the use of basic gymnastics in physical education of pupils of secondary schools. The experimental test method creating a culture of motor activity by means of basic gymnastics in the system of physical education students grades 5-9. <u>Material</u>: experiment were selected 109 students. <u>Results</u>: The method comprises three stages: basic, special and profound. The developed method should be applied in the preparatory part of the lesson (15-20 minutes) - invariant component of the curriculum. Found that means basic gymnastics culture is the basis for motor activity. Their conscious and correct implementation is a prerequisite to the motivational desire to exercise. <u>Conclusions</u>: It is proposed to evaluate the physical condition of students with criteria: compliance burden of a preparatory lesson preparedness and age of students; lack of fatigue during exercise basic gymnastics; the impact of stress on technique exercises.

Keywords: physical culture, identity, motion, exercises, technical, training, students.

Introduction

One of the main goals of the school physical training is the personal physical culture formation. The personal physical culture formation problematic contemporary researchers are V. Balsevich, L. Byhovskaya, M. Vizitey, M. Vilenskyi, L. Lubisheva, L. Matveev, Y. Nikolaev, T. Skoblikova, V. Sutula, V. Stoliarov, B. Shiyan. They concluded the personal physical culture formation effectiveness to be the complex pedagogical process characterized with a quantity of criteria, one of which is the personal motional activity culture' level. In the mentioned authors' researches the main components of the motional activity culture are: the exercises' fulfilment clarity, the motions' amplitude, pliability, the different body parts' motions congruence, appearance and so on [1-4, 7, 10-12, 13, 14, 16, 18-20].

The literature review attests, that the basic gymnastics is one of the most popular pupils' physical training means [5, 6, 8, 15, 17, 21]. At the present stage, it have constituted as the harmonic system of the methods and techniques directed to the man's comprehensive physical development. Basic methods of gymnastics are used for the improvement of man's natural, vital motion abilities, which are necessary in daily life [3].

But in contemporary scientific discourse the attention to the basic gymnastics as the significant factor and the mean of the personal physical culture formation stays far from sufficient. It should be noted, that in the physical culture formation exactly the gymnastic methods and methodical techniques are regarded as the most effective. Effectiveness criteria in such education process would be the consciousness motion control, productiveness, accuracy, automation, reliability of the exercise digestion, technique etalon and its ergonomicity. All of these indexes allow the basic gymnastics methods improving.

The present research theoretical hypothesis is the presumption of the basic gymnastics exercises to be an effective mean of the purposeful formation of the basic motor actions, i.e. the motion activity culture in the middle-school pupils' physical training context.

The study have been performed within the confines of the Consolidated plan of the research work in the physical culture and sports for 2011-2015 for the theme 1.3 - "The healthy lifestyle paradigm in the discourses of physical education and sport" (the state registration number: 0111U001716) and the complex scientific project "Theoretical and methodological basis for the personal physical culture formation of children and young people as the basis of their health" (the state registration number: 0113U001205).

Purpose, tasks of the work, material and methods

The exploration of influence of the experimental method at the 5-6th grade pupils' physical culture formation with the basic gymnastics means was our main purpose.

In the study there has been worked out the structure of the pupils' motion activity that consists of the activity and the value-motivation blocks. Activity block (technical qualification and physical shape) was being explored with the pupils' expert evaluation method.

The method of expert estimation in pedagogics, developed by V. Shadrikova and I. Kuznetsova [9], was chosen as basis of the study. Teachers of Kharkiv district methodical unions and higher school (Kharkiv state academy of physical culture) tutors were recruited as experts, 8 persons altogether. Experts were provided with questionnaire, designed by the author, concerning the competencies, which characterize the motional culture. The first expert estimation was held in September 2013, second – in May 2014 (by the developed method school year usage results).

Technical competence qualification included the next motion activity components: 1) drill exercises (criteria: accurate execution of commands, relining, movement; coordination of actions; simultaneous execution; keeping correct posture; 2) types of walking (natural posture without stress, shoulders deployed and lowered, blade brought together, "walking in step" on account) and running (body tilted slightly forward, right foot setting, proper breathing); 3) General

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developmental exercises (GDE) in motion and in place (exercises fulfillment technique: actions amplitude and accuracy, torso position, "gym style" of performing, assimilation reliability, gymnastics terminology understanding). The experts were invited to evaluate the physical condition of students on the following criteria: compliance of the burden in the preparatory lesson and the age of children involved; absence of fatigue during basic gymnastics exercises execution; stress impact on exercise technique and so on.

Experts' esteems were rounded off to tenth in the 5-point scale. The value of the students' technical qualification level from 4.3 points to 5.0 points showed high level of matching of student's preparedness for performance of diverse exercises of the basic gymnastics and a large supply of motion actions. The qualification level of students valued from 3.30 to 4.29 points presented a satisfactory student's motion actions arsenal and sufficient skills of the basic gymnastics exercises execution, as well as the need for further improvement. The score lower than 3.3 points showed student's elementary level of mastering the technique of gymnastic exercises.

In order to determine the effectiveness of the developed technique during the study the formative pedagogical experiment was conducted. Its condition was the use of this technique during the school year, which included three stages: basic, special and profound. During the basic stage at the physical education lessons throughout the year students repeated material learned in previous classes, learning the new exercises (specially designed complexes of drill exercises, types of walking, running, jumping, GDE in motion, and GDE with and without objects). The developed method was used in the preparatory part of the lesson (15-20 min.) as an invariant part of the school curriculum. One of the main components of the developed method is the regular monitoring of the obtained abilities and skills, fulfilled in the form of exercises for evaluation, express-control, competition, leaps taking, different races and competition for the best complex of general exercises. We predicted that these basic gymnastics means will have become a basis for the motional activity culture, and their conscious and proper execution will be a motivational prerequisite for a desire to exercise.

The special feature of the special period of study content was developing by students during homework the gymnastic exercises complexes for fitness and healthy-making activities (FHMA), using the school day schedule, and its systematic conducting with their classmates. This approach contributed to the creation of interactive information sharing environment for the preparation of these complexes.

The primary task of profound study period was the formation of students` creative thinking concerning the healthy-making means, needs and interest in regular fitness and healthy-making activities, attracting as many students to such activities, as it is possible, practical skills fixation and improvement. In order to fulfill the mentioned task, the regular entertaining competitions implemented in physical training system.

During the methodology development process, we took into consideration features of the human higher nervous system functioning. With a large supply of structurally and technically various exercises, students will be able to acquire new forms of movement successfully and cope with different motion tasks, because based on the general gymnastics conditional reflexes are able to produce new reflexes of higher orders. Each new move contains elements (parts, details) that have been previously studied. The more motion skills a student has, the more complete his motion experience is, the easier and faster he can learn new actions. We used this theoretical postulate in building the students' motional activity culture.

At the end of the pedagogical experiment repeated expert evaluation by the same procedure was conducted.

Results of the research

Results of the first expert evaluation showed motion activity culture's homogeneity both in the control and in experimental group at the "initial" and "sufficient" levels. Mean score in the control group was 3.3 points, in the experimental -3.35 points. The experts answers were calculated using the Spearman coefficient. The expert opinion correlation level at baseline in 5th grade was p = 1 and in 6th grade it was p = 0.82, indicating a close connection between expert esteems.

Results of repeated expert evaluation showed that during the experiment skills of students in both groups improved on all competencies that characterize the motional culture. However, under the influence of the developed method the formation of the high school students' motion activity culture in the experimental group was more active.

Technical qualification of the experimental group students, where one of the competencies were drill exercises, increased by 1.4 points in 5th grade (4.2 points) and by 1.3 points in the 6th grade(4.2 points), while in the control group the same index in the 5th grade has increased by 0.3 points only and by 0.2 points in 6th grade. Under the influence of the developed method experimental group students became more accurate in commands executing, moving and relining, and showed more coherence in actions and simultaneous execution of drill exercises.

The observed improvement in experimental groups of the criteria of walking as the motion activity cultural competency, presented by grade, is: in the $A5^{th}$ class – from 3.1 to 4.1 points; $A6^{th}$ – from 3.0 to 4.2 points. These changes we explain by the various walking types performance improvement (shoulder deployed and shoulders deployed and lowered, blade brought together, movements of the opposite arms and legs are free). Control group at the end of the experiment didn't show significant changes in this area: mean point in B5th class changed from 3.1 to 3.4 points only; in B6th – from 3.2 to 3.5 points.

As a result of repeated expert estimation of the running exercises we can denote the good running technique of the $A5^{th}$ and $A6^{th}$ grades pupils. They have learned to keep the body, look after the proper foot setting and breathing during the running exercise performance. For this group of competencies mean of the experimental group increased in the $A5^{th}$ on 0.9 points and in $A6^{th}$ – by 0.8 points. At the same time, the control group improved its result only by

PEDAGOGICS PSYCHOLOGY medical-biological problems of physical training and sports

0.3 points. Also, performance of a GDE complex in motion grew to 4.1 points in both experimental classes and to 3.5 points in the control classes.



Technically trained

Fig.1. Dynamics of the students motion activity culture formation in the control and experimental groups (by class)

Experimental method significantly affected the performance of GDE complex on the spot. Thus, in the end of the study experts rated this group of competencies possession at the 4.0 points level in both experimental groups. This dynamics can be explained by improved performance of GDE, meaning increased range of motion, execution accuracy and mastery of "gymnastic style".

A kind of a "total result" to determine the level of technical qualification of control and experimental groups students was the criterion of "general impression" that testified the students' motion actions arsenal. In an experimental $A5^{th}$ class this criterion increased from 3.4 to 4.2 points; in $A6^{th}$ – from 3.5 to 4.3 points. In the control group (B5th and B6th) there were no significant improvements.

The physical shape evaluation results showed sufficient level in both control (3.7 points) and the experimental classes -4.1 points. Analysis of these results indicates compliance of the physical loading and level of physical fitness to the age of students.



Conclusions.

Use of the expert estimation method revealed that the experimental technique actively influenced the intensity of the motion activity culture formation in the context of students health-saving competence. To the end of the study in experimental groups technical qualification performance significantly improved in the 5th grade on 1 point and in the 6th grade on 1.3 points (while in control classes – by 0.1 points in 5th and 0.2 points in 6th) and physical condition improved by 0.8 points in both experimental groups (while in control it grew by 0.2 points only). It gives possibility to state that during the experiment the level of competencies that characterize the students motional culture grew in experimental group of the 5th grade by 36% and by by 42% in the 6th, while the control group showed growth only by 6% in 5th grade and by 8% in 6th. Thus, the introduction of experimental techniques contributed in the more intensive formation of the motion activity culture for students of the 5-6th grades. The main difference from traditional methods is the presence of a productive component on the stage of advanced training, reflected in the use of a number of sports and recreational activities, based on the principle of competition.

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medical-biological problems of physical training and sports

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