



METHODOLOGICAL FOUNDATIONS FOR ENSURING CONTINUITY IN PHYSICS TEXTBOOKS IN POSTNOCLASTIC CONDITIONS

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Annotation. This article will consider the pressing problems of physical education of general secondary education schools of continuing education, as well as the problems of the content of the science curriculum. On the methodological and didactically structural structure of postnoclastic conditions physics teaching textbooks, the author expresses his thoughts.

Keywords: state standard, textbook, methodological, didactic, postnoclastic, science program.

The need to seek approaches in accordance with the period requirements of the organization of the educational process at the stage of general secondary education schools of Continuing Education led to the improvement and optimization of Education. The problems of improving physical education consist in organizing the excellent assimilation of fundamental Physical Education by students of general secondary education schools and in establishing its structural structure and content in accordance with the requirements of the period: the organization of a teaching system using modern information technologies and the formation of competency of an individual in improving the quality of education[1].

In the process of improvement carried out, the essence of the most important components of the system of education of schools of general secondary education was radically reanalyzed. The initial focus of the article was the improvement carried out in the practice of the stage of general secondary education schools of Continuing Education, an attempt was made to draw appropriate conclusions from the collected evidence about the real state of affairs.

The stage of general secondary education schools of continuing education in the process of research related to the development of alternatives to the curriculum and textbooks of current physical education, in particular, with the introduction of “Natural Science”, the main emphasis was placed on cases that should be carried out in the field of continuity of current physical education.

Therefore, in the article on how to develop educational programs, textbooks and educational methodological complexes that provide an alternative that should be implemented in this area, the author's own independent proposals will be brought to your attention.



According to the opinions of a number of researchers, the stage of schools of general secondary education is expressed in future personnel training activities, in the form of gaps characteristic of all educational systems and society as a whole, taking into account the usual goals of education in reforms carried out in Physical Education[2].

At this stage, the psychological aspects of the formation of imaginations that physics used to analyze and teach, methods of cognitive mental activity, in the identification and study of the mental specifics of students. L. S. Vigotskiy, M.G.Davletshin, S.L. Rubinshteyn, N.F. Talizina, E.Gaziyev G.B.Shoumarov on the results of scientific research conducted by the shoumarovs.

The article relied on the results of research work carried out by local and Commonwealth countries Methodists in this area, such as:

- A.V.Perishkin, N.A.Rodina, S.V.Gromova it was noticed by the gromovs that schools of general secondary education teach the physics course in two stages.

- N.M.Shakhmayev, D. SH. Shadiyev, in the research work of the shodievs, relevant conclusions were drawn from the work carried out on the linear structural structure of the physics course of schools of general secondary education.

- A.I. Bugayev, G.M. Golin, M.Jurayev, S.Kamenetsky, M.Mamadazimov, V.V.Multanovsky, B.M.Mirzahmedov scientific research work on the principle of generalizing the composition of fundamental physical theories was analyzed by Mirzahmedov and others.

In connection with the introduction of “Natural Science” at the stage of the current general secondary education schools of continuing education, personal feedback was expressed on the structural structure of the current physical education and the creation of an alternative to its content. In the article, the model of physical education, which is studied in the current general secondary schools of education, implies a three – stage study of the physics course: from 1 class to 5 classes (first stage) - physics education as one of some additions, components of materials, included in the integral courses “Surrounding world” and “Natural Science”; from 6 class to 9 classes (second stage) However, with the introduction of a twelve-year system of education in the early years of independence in our country, general secondary education schools of continuing education were introduced, the stage of nine-year and three-year academic lyceums and vocational schools. At the stage of general secondary education schools, academic lyceums and vocational colleges of continuing education of that time, physics was studied in the following order.

In today's Postnocratic environment, the structural structure of physics education should be in the requirements of an informed society, and it is advisable to abandon the concept that the completed course of physics should be studied in the 6-9 classes of current general Secondary Education Schools[3]. The stage of general



secondary education schools of continuing education based on the structural structure and content of physical education, it may be advisable to create the following alternative curricula and textbooks, taking into account the personal characteristics of students. This alternative structural structure must be carried out in the following sequence:

In the 7th grade: it is advisable to give initial information about mechanical, sound, thermal phenomena, initial images of the structure of matter, electrical, light phenomena. Only then will the students of the 7th grade of the current continuing education be guided by the interdisciplinary interdependence of the “mechanics” section of physics, which is considered incomprehensible and complex, and the shortcomings that were poured during the period of improvement and optimization will be taken into account.

In Class 8: electric charge and electric field, laws of fixed electric current, transformation of electricity from one type to the second type, magnetic phenomena, phenomenon of electromagnetic induction, preliminary data on semiconductors.

In 9th grade: the basics of molecular kinetic theory, studied under the current 9th grade physics education curriculum with the study of the sections “mechanics” and “Fundamentals of Molecular Physics and thermodynamics” of physics, the basics of internal energy and thermodynamics, heat engines, surface phenomena in liquids, mechanical properties of solids, changes in aggregate states of matter, optics, the basics of atomic physics, , in a sequence of sections and chapters, such as the technical progress of physics, the negative states that students have knowledge completed in the sequence above physics will be corrected

In Class 10: Section “Electrodynamics”;

In Class 11: “The continuation of the section on electrodynamics and the study in the sequence of sections” elements of quantum physics” can be an effective result of scientific research work carried out in the field of improvement and optimization, which is carried out in this field.

Now, in order to approach this issue more perfectly, let's focus on the result of a brief analysis of the “physics” curricula of general secondary education schools of the Commonwealth countries, including Belarus, Kazakhstan and Russia[4].

The study of physics in the 7th grade began with the study of the chapter “elementary data on the structure of matter” of elements of molecular kinetic theory. Schools of general secondary education the beginning of physical education precisely from the study of this topic is due to the following reasons: this stage is due to the need to increase the place of theory in physical education; from the earliest stages of Physical Education, Physical Education is not only organized by knowledge about evidence and laws, but also by the opportunity to acquire knowledge that can explain certain phenomena and laws and tell them in the future;



The knowledge acquired in the study of Molecular Physics in the 7th grade was used in the study of the hydro – and aerostatics chapter, which will be studied in this class in the future, and the heat phenomena section in the 8th grade. The second chapter of the study of physics in the 7th grade is called “Movement and interaction”, in which students get acquainted with the concept of power in mechanics with the study of the types of movement, the chapter on the interaction of bodies. In the study of mechanical motion, its natural method of characterization is used, readers are told that, as a rule, velocity and force are vector magnitudes with a clear direction.

This stage of general secondary education can be included in physical education as the concept of flat accelerating motion and equation of motion, although the study of the concept of acceleration is not mandatory. But it is precisely in this class that solving issues related to the concept of acceleration is a goal that students are not given issues related to this topic, taking into account the fact that some of the necessary topics from mathematics have not been studied[5]. Just as the opinions and considerations expressed above also apply to Newton's laws. It is not assumed that they will be studied in the system and in the form of a clear formula, but in some physics education curricula this problem is discussed.

In Class 8, thermal phenomena are studied in the transformation of aggregate states of matter, as well as thermal phenomena received by electricity (electrification of bodies and constant current) and electromagnetic phenomena (magnetic field of current) themselves. Therefore, the 8th grade physics course ended with the chapter “phenomena of light”, in which students are introduced to the so-called geometric optics of physics.

The study of physics education in the 9th grade began with mechanics and began with the study of kinematics, dynamics, conservation laws and mechanical vibrations and waves chapters, presented in their composition as fundamental physical theory.

Here is the study of the foundations of classical mechanics: its empirical foundations, models, equations of motion, the core of the theory in the form of postulates and principles, Newton's laws, the whole universe in the sequence of conservation laws of gravity, momentum and energy; direct, inverse and a number of practical issues of mechanics are presented in the form of the results of the theory.

The study of physics in the 10th grade began with the study of the sections “Fundamentals of Molecular Physics and thermodynamics” and “Electrodynamics”. In the 11th grade, students are given the continuation of the section “electrodynamics”, studied in the 10th grade, the law of electromagnetic induction, systematic knowledge of the electromagnetic field and electromagnetic oscillations and waves and their properties as well as the wave properties of light. Physics education is completed with the study of atomic and atomic nucleus physics, radioactivity and radioactive changes, Atomic Energy[6].



Conclusions and suggestions.

1. It is necessary to radically update the experimental base of physical education and provide general secondary schools with modern pedagogical literature in Ravish in accordance with the requirements of the period.

2. The author expresses serious concern about the shortcomings allowed in the transition from an unreasonably fast transition to 12 years of education in our country to another fundamentally eleven years of Education. It once again mentions that the necessary pedagogical experience of such a transition should be tested and its results should be discussed in depth and comprehensively with the broad participation of the scientific and pedagogical community. As well as the initiative of the Ministry of public education on the introduction into practice of the necessary pedagogical experience without testing the “Natural Science”, which will be introduced in the 1st - 6th grades of general secondary education schools of our country from the 2021/2022 academic year, I consider it necessary to draw an appropriate conclusion. Because of the circumstances introduced in practice in such a hurry by various officials of the Ministry of public education, it is necessary to remember what cases students of general secondary education schools after the departure of an official from office will experience.

3. The Ministry of public education is stressed that increasing the share of open education in educational programs at all levels, ensuring the global internet connection of all general secondary education schools is important in increasing the level of knowledge of the country's population and is very important.

4. Special attention should be paid to physics education: integration of schools of general secondary education - pedagogical institutes - universities. It is recommended that educational standards and programs of different levels be discussed together.

5. The priority of physics education is to have excellent and thorough in-depth science knowledge and to formulate the skills of independent work. It is necessary to educate new specialists - technology managers who combine knowledge of Physics, Computer Science and economics and are able to manage the process of developing new technologies and introducing modern technologies. Such specialists can form the technological elite of society.

6. In connection with the introduction of the “Natural science” into practice, I believe that it is advisable to create alternatives to the current physics education curriculum and textbooks and conduct an open competition for them and publish them in public publications.

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