CONCEPTUAL BACKGROUND OF THE SCHOOL SYSTEM
REFORM OF PHYSICAL EDUCATION IN UKRAINE

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Abstract

Despite modern requirements and the reform of the education system in Ukraine, the problem of health and the level of physical development of children of both school age and youth has not been solved yet and remains a burning issue. Studies conducted by the Ministry of Health of Ukraine show that 45 % of students suffer from various chronic diseases, 66 % have a violation of posture, 19 % of senior pupils have high blood pressure, etc.

That is why, the purpose of this research is to reveal the conceptual background that determines the importance of physical education in the modern educational system. The article shows the necessity of strengthening the health-improving focus of school physical education lessons. The approximate educational program for physical education at school has been proposed. The necessity of introducing physical culture and recreation hours in a school day, the need to strengthen athletic classes, the introduction of the theoretical course of the principles of a healthy lifestyle, the issues of material support for physical education at school, promotion and management of physical education and other issues dealing with the implementation of a healthy lifestyle not only for students, but also for other population groups have been studied.

Key words: conception, background of the reform, the reform of school physical education system.

Олександр Кузь, Борис Кедровський, Валентина Леонова. Концептуальні предпосилки перестройки школівської системи фізичного виховання в Україні. Незважаючи на сучасні вимоги та реформування системи освіти в Україні, не вирішеним і острим є питання здоров’я та рівня фізичного розвитку дітей як шкільного віку, так і молоді. Дослідження, що проводилися Міністерством охорони здоров’я України, свідчать про те, що 45 % учнів страждають від хронічних захворювань, 66 % мають порушення тиску, у 19 % старших класів відмічені пригнічення артеріального тиску та ін.

Тому цілью дослідницької роботи є концептуальні предпосилки, які визначають фізичне виховання в сучасній системі освіти. В статті розкрито необхідність і сенсібність фізичної освіти в школі. Розкрито питання критичного аналізу форм фізичної освіти у школі та уроків фізичного виховання. Окрім того, розкрито тему реформування системи фізичної освіти в школі.

Ключові слова: концепція, перестройка, фізичне виховання, здоров'я, учебный день, спорт, фізічна культура, розвиток, здоров'я, тиску.
**Formulation of a Research Problem and its Significance.** Health and physical preparedness of children and youth are the most important components of the health and physical potential of a nation. Everyone attends school. The problem of physical education and public physical culture must be solved, first of all, and mainly, with the help of school. At school age, it is necessary to develop a strong need for physical education and sports, willingness and ability to improve a physical state, and also to provide sport literacy for everyone.

We should mention that it is practically impossible to change the situation in the whole country regarding the development of popular physical culture and sport in a short time. To move to the solution of this problem more widely, covering the entire population, means postponing a real turning point in this direction for decades. It is necessary to concentrate our efforts on the main direction – the reorganization of the physical culture of children and youth.

The school reform, as we know, has not produced the expected result: the school has been focused on the students' knowledge of theoretical subjects for many years and continues doing this. The physical education of students is practically «pushed into the background». It is not a surprise that the level of children and young people’s physical preparedness is assessed as extremely unsatisfactory [3; 17]. At the same time, a radical reorganization of the system of school physical education should be considered as an urgent social task, the background of which we see in 12 conceptual positions.

**The aim of the study** is to characterize the conceptual background determining the importance of physical education in the modern education system.

**Statement Regarding the Basic Material of the Research and the Justification of the Results Obtained.**

1. **The Need to Strengthen the Health-Improving Orientation of School Physical Education.**

Many facts cause an acute concern about the health of the younger generation. Here are just some of them. According to our data, the number of students applying to medical institutions has noticeably increased in recent years. There are more than 200 such appeals per year for every 1000 10–14 year-old boys, as for girls of the same age - up to 300, one of the main causes is respiratory diseases.

At the same time, there is an increase in the number of nervous diseases among children. It is due to psychoemotional stress and load of the child in pre–school and school institutions and in the family. On average, the country annually accounts for 12 days of incapacity for work for an adult, 8 days for a student and 17 for a pupil. Every day more than one million people do not go to work due to their illness [15].

Studies conducted by the Ministry of Health of Ukraine show that 45 % of students suffer from various chronic diseases, 66 % – have a violation of posture; 21 % – have a disposition toward high blood pressure; in 19 % of senior pupils, high blood pressure indices were noted [17].

Specially conducted studies indicate that 34 % of school leavers have health restrictions; up to 46 % of schoolchildren have various degrees of musculoskeletal disorders; up to 28 thousand schoolchildren are exempt from physical education classes; 61–65 % of students suffer from respiratory diseases; by the end of the school, 47 % of children are visually impaired [11; 17].

A chronic deficiency of motor activity hinders children’s normal physical development, threatens their health. About 30 % of school-aged children are at risk. After they turn 17, they begin to face such diseases as diabetes, hypertension, atherosclerosis [13]. These features contribute to a low level of physical preparedness of schoolchildren, worsen their adaptation to the mode of work, and especially, to the conditions of military service [7].

As a result of 25-year observations of the schoolchildren’s physical development in Ukraine, a reduction in the number of boys with a muscular type of constitution was found. In comparison with 1990–1991, among 8 year-olds the number of such boys was 26 %, in 2015 – 7 %; among 11-year-olds – 32 and 16 %, among 14-year-olds – 46 and 20 % respectively. In 2015, there are more than 200 thousand mentally and physically disabled children in the country, and in the cities this number is 5 times bigger than in rural areas [8].

For many years, Ukraine has been one of the last among the European and Asian countries according for the number of child mortality.

A reliable relationship between children’s illnesses and their physical development was revealed. Numerous studies carried out in our country show that schoolchildren with low motor activity have an increased number of illnesses due to a decrease in the overall level of functional capabilities and immune system. With age, the after–effects of low motor activity deepen and lead to rapid aging of the human body and early disability. Our country ranks only among the fifth decade for life expectancy, while it is proved that 75 % of all diseases begin in childhood [19].
The dynamics of deterioration in the health of our children was outlined many years ago but so far, apart from numerous decisions and decrees, nothing concrete has been done to decrease the threat to the nation.

2. A Program for Physical Education at School.

Needless standardization of the imposed national programs for physical training of schoolchildren prevents the progressive development of school physical education. Such programs do not stimulate teacher’s creative activity and their vigorous search for new solutions. In addition, the recent tragic events at physical education lessons caused the unjustified exclusion from programs the vital exercises for the development of strength and endurance of schoolchildren.

The analysis of the existing school curriculum for physical education showed that a standardized program for all regions often does not take into account the peculiarities of the child's organism development in different climatic and geographical zones of Ukraine [15]. There is a clear need for specific versions of school curricula applied to the peculiarities of the regions of the country, taking into consideration their typical climatic, geographic and socio-economic conditions.

In the context of the strictly regulated program, there is no real opportunity to implement the most important principle of physical education system – to provide a differentiated and individual approach to students, taking into account their health, physical development, and fitness.

An interview with physical education teachers showed that only 8% of them are fully guided by the requirements of the physical education program at physical education lessons [21]. In connection with this, it is necessary to develop a single basic model program, on the basis of which regions and certain schools, in accordance with their needs, could specify their own versions of the program, provided that the basic minimum of requirements will be compulsorily fulfilled.

Undoubtedly, the basic model program should set the tasks of physical culture and education that need to be performed (involving the formation of the vital motor skills and knowledge related with them). It is necessary to develop a legal framework for the basic school curriculum. Regional standard training programs should be developed on a competitive basis with the involvement of the leading specialists of the country. The same should be done during the preparation of textbooks and training manuals on a students’ healthy lifestyle, including the physical culture.

3. The Lesson of Physical Education as the Main Form of Physical Exercising at School.

According to our data and the data of other researchers, the average increase in fitness indicators achieved in a year is 3–5% for boys and 2.3–3.2% for girls thanks to two physical training lessons per week and one football lesson, but it is still a significant deficit for the normal development of the schoolchildren’s organisms.

Two lessons of physical education do not form schoolchildren’s habit of doing sport systematically. In developed countries, a lot of attempts are being made to increase the number of compulsory school classes on physical education up to 4–5 times a week. Our experts also insist on this [15].

However, the increase in the number of physical training lessons is justified only after a big improvement in their quality. Now, physical training lessons at school are often formal and do not strengthen the students' health. At school, these lessons are often considered to be peripheral. The frequency of the pulse at these lessons often does not provide a training effect on the children's organisms. According to our data, 46% of all lessons are conducted with a lower average load, 38% – with an average load, and only 16% – with a training load [20].

The school lesson of physical education, in contrast to the training session, is usually aimed at pulling up underdeveloped sides of the physical and technical training of schoolchildren. The teacher sets the task of training the child to the level of an average student, while he does not actively develop his leading abilities and inclinations, as, for example, the coach does.

The basis for the content of physical training should be a system that has a visible training effect and is aimed at improving the body functions. The optimal motor activity with heavy enough physical load leads to a noticeable improvement in physical development, to a significant improvement of the organs and systems of a growing body causing the improvement of non-specific nature which makes an increase in resistance to various unfavorable factors of the external environment and complex biochemical and hematological changes affecting protective forces of the organism.

At the same time, the pursuit of the high motor activity and its training effect does not allow to solve educational tasks systematically, for example to teach massage and warming up, to lead up students to self-tuition and self-improvement. Submitting lessons only to training purposes leads to the fact that school leavers often find themselves helpless in organizing and conducting self–tuition and soon give it up at all.
Teachers of other subjects sometimes experience certain difficulties in teaching their lessons after physical training lessons, even if the latter were of low intensity. The physical training lesson should have a different place in the school schedule in comparison with the general educational lessons and be accompanied by a «normalizing» phase.

Thus, on the one hand, the school sets the task to teach schoolchildren the basic physical culture in a broad sense, to adapt healthy lifestyle skills, and on the other hand, to enhance the physical qualities of schoolchildren. The teacher practically does not have enough time to effectively combine the educational and practical courses of physical education. Basic improvements in the physical education of students cannot be done within the improvements in a school schedule, because it is too narrow and uncomfortable for this [20; 22].

According to our research data, more than 80 % of high-school students expressed their negative attitude toward physical education lessons. These data coincide with the opinion of American scientists who determined that 84.6 % of American schoolchildren are engaged in physical exercises outside school hours [4; 6].

The obvious decrease in the schoolchildren’s interest in the standard lessons was the reason for the intensive research done by scholars, particularly foreign ones, on the expansion of the sports program and incorporation of out of school activities: in sports sections, hobby groups, etc. Currently, there is a clear shift in physical education and sports from school to extracurricular activities. At the same time, the emphasis is on the training effect, general educational tasks are solved simultaneously [4].

A serious obstacle to increasing the number of physical education lessons, as well as other physical education classes, is the weak material and technical basis and unfavorable sanitary and hygienic conditions in many schools in the country. This requires a wider use of outdoor sports grounds, temporarily adapted places and a search for other opportunities.

Despite the economic difficulties that our country is facing today, school physical education needs additional expenses. A humane country and society cannot afford to save on health and normal development of the younger generation. Besides, these expenses will be repaid many times by high working capacity and reduction of cases of illness among youth, and even the whole nation in the future.

The harmony of the educational curricular and extracurricular activities aimed at providing the daily physical activity of students (reasonably arranged, but not «over-arranged») is one of the most important principles of reforming the school system of physical education.

In addition, one of the basic forms of physical education of schoolchildren should be a daily physical culture and recreation hour (an active break).

A new approach to the physical education of children and young people should be based on the expansion, first of all, of sports activities, usually conducted out of school hours.

4. The Need to Introduce a Physical Culture and Recreation Hour («an hour of health») in the School Day Schedule.

The school should necessarily take responsibility for an efficient organization of extra–curricular forms of physical exercise, especially during a recess period in the fresh air.

If the school manages to organize daily exercises during a recess period, then the health effect from them can be higher than from 2–3 physical education lessons [10; 12]. Extracurricular activities have various forms that will better meet the non–standard needs and interests of schoolchildren.

Despite the limited effectiveness of small forms of physical education (morning exercises, physical breaks at lessons, active breaks and home tasks), their presence in the school schedule is necessary.

We cannot disagree with the fact that two lessons of physical education are a destructive form of work for children’s health. They need everyday lessons [10].

It is known that in 12 schools of the Estonian SSR a daily physical education lesson in the open air was introduced as an experiment. It was allowed to conduct a lesson at the gym only at the temperatures below – 15°C. In addition to daily lessons, there were organized «active breaks» lasting 15–20 minutes in the open air. The increased motor activity of students positively affected their health and performance and contributed to the strengthening of discipline at school. The schoolchildren’s appetite became better, sleep became quieter, and health was strengthened [15].

It is important to determine an efficient organization of active breaks: for children of primary school age – after the second lesson, for students of secondary school age – after the third, for high school students – after the fourth lesson.

All schoolchildren should be involved in sports activities conducted during a break, as a rule, in the open air both in winter and in summer.

To ensure the effect of active breaks, it is necessary to involve the entire teaching staff of the school in their organization. This form of training, which gives the child 6 hours of additional motor activity per week,
almost does not require additional funding and staffing. But it makes sense to give an extra charge to the salary for the educational work for those, who take on the responsibility of methodical preparation of «health hours»

It is important that the recreational «hours of health» are held in outdoor sports grounds in the form of elementary active and sports games, leisure-time entertainment, and other emotionally-active exercises.

Based on our own and foreign experience, we need to specify the organizational and methodological measures for the wide replacement of schoolchildren's physical exercises by the ones conducted in the fresh air both in winter and in summer.

5. The Necessity of Radical Strengthening of Sectional Forms of Physical Education of Pupils.

It is known that, in comparison with other forms of physical education, the greatest positive effect on the physical preparedness of students is provided by classes in school and out-of-school sports sections in general physical preparedness and kinds of sport. According to our data, the physical preparedness of those who are engaged in youth athletic centers and school sports sections is much higher than that of schoolchildren who attend only compulsory physical education lessons [1; 18].

Sectional forms allow to implement an individual approach to the physical education of students, taking into account their needs, inclinations and goals, rather than equaling all to the average level. Here the developmental (training) orientation to the children's organism is appropriate. Each school together with the youth athletic centers should have a wide network of sections and groups on kinds of sport, general physical preparedness and tourism, and regularly organize sports competitions and sports festivals. In this case, children will exercise not 1–3 times a week, but 5–6 times – as much as it is necessary for the normal functioning of the child's body [6].

Additional lessons in the school sports sections out of the curriculum may be paid by the parents of the students. In this case, physical culture lessons taught by teachers and 3–4 sports classes per week will be conducted on the self–supporting basis, with the involvement of both sports volunteers and physical education teachers. It is possible to create cooperatives for sports activities with children.

The main goal is the health of children by means of everyday exercises.

There is a sense, especially in the high-school, to combine the obligatory school lessons of physical education with sectional classes, conducting them 3–4 times a week after classes on other subjects. The salary of physical education teachers should depend on the completeness of the coverage of all schoolchildren by such forms of activities. The school should have the financial resources to invite children's coaches and other assistants to help school teachers with the aim of encompassing all students with physical fitness and recreational work.

Expanding the form of physical education classes is effective only in elementary school, then it is necessary to have physical education in the form of children's sports activities outside the school schedule – in the numerous sports sections of the school. The school should become a powerful children's sports center at the place of their residence [1; 3; 19].

Expanded use of sectional forms of classes does not bind the teacher and students to the school sports base, it allows the use of sports facilities of the district (city) throughout the day.


Parents are also responsible for the physical education of the child. The way they treat physical education affects the attitude of their children toward it. First of all, parents should introduce their children to a healthy lifestyle. It is necessary to develop a program for family physical education and a regulation of the participation of parents in physical education classes.

Education of health culture should be carried out in the family continuously. In well-to-do families, neuropsychic disorders in children occur four times less frequently than in unsuccessful families, the diseases of the digestive system are 2.5–3 times less frequent; children fall ill 6 times less. The Ministry of Health of Ukraine testifies to the positive influence of the family on the formation of health of the younger generation [21].

7. The Development of a Special Physical Education Program During School Holidays.

Both the school and the family need to ensure a special activation of fitness and health recreation events with the involving of all students during school holidays. An additional fund to encourage this work can be created with the help of the parents of schoolchildren.

8. The Expansion and Modification of the System of School Competitions.

Sports competitions as one of the most effective stimuli maintaining the interest of children in sport, should become a constant part of school and extracurricular life of students.
The existing system of children's competitions does not provide the opportunity to participate for many students: talented children usually take part in competitions.

According to our data, more than 90% of schoolchildren would like to do sport systematically. We artificially restrain this desire. At the older age, on the contrary, we start to encourage people to do sport, but in most cases these efforts are unsuccessful [15].

We can talk about the formation of the need for physical self-improvement in adults, but at school age, the motivation and interest in physical training and sports come to the fore. At the same time, playing and competitive activities are the most effective means of attracting students to regular physical education and sports.

The center of competitive activity of students should be transferred directly to school, sharply limiting the number of district, city and all-Ukrainian internal competitions. The bet must be made on the system of internal competitions within the school and between neighboring schools and on the system of post sport at any level.

Every pupil of the school who has no contraindications must participate in at least two sports competitions every month. At the same time, the efforts of the school's employees should be directed towards creating the principle of «sport for all students»

After the transition of the school to a five-day work, there are enough arguments for using one free day as a «Sports Day».


School leavers practically do not receive systematic knowledge about a healthy way of life, functions and methods of directed use of the main factors of physical culture, rational mode of work and rest, rules of toughing up etc. Such kind of knowledge should be formed during the classes of physical education. At such lessons students are given knowledge and skills of independent use of methods of physical education.

Students at school (and not only at physical education lessons) should get serious knowledge of the basic principles of hygiene, toughing up, nutrition, sexual relations, etc. In the process of physical training, special attention should be given to the ability to exercise independently.

With this in mind, it is necessary to develop a coordinated course of lectures, seminars and practical classes on human hygiene, rational nutrition, principles of a healthy lifestyle, scientific and methodological foundations of physical culture and sports, the basics of medicine and physiology.

It is advisable to invite specialists from universities and other institutions, including parents of schoolchildren, to conduct theoretical classes.

In middle school and high school students should have a theoretical lesson once a week.

The theoretical course with seminars and lectures on a healthy lifestyle will serve as the basis for out-of-school physical culture classes and will arouse schoolchildren’s sustained interest in doing sports. Physical literacy of the population is possible only if we solve this issue at school age.

10. Introduction of Examinations in Physical culture.

It is necessary to clearly define the criteria for assessing the activity of the whole school staff aimed at providing fitness and health promotion in students, to improve the methods for monitoring physical fitness. The lack of adequate criteria hampers the development of school physical education to a large extent.

Evaluation of the effectiveness of physical education classes, apparently, should be the fulfillment of the requirements of the program, the dynamics of development of physical qualities and functional preparedness of students.

At the same time, it is important to introduce the official «Personal profile of a physical fitness» of students as a part of the «Health passport».

Physical education examinations should be conducted in the first, fourth, eighth, and eleventh forms on the same terms as the general subjects.

Such practice of introduction of examination certification of pupils existed in Soviet Estonia (since 1982). Since then, the attitude of schoolchildren and their parents to physical culture and sport has changed significantly and positively in this country [15].

11. Material Resources.

The new conceptual approach to problems of school physical education will require change of attitude of domestic industry to it.

It is necessary to establish a priority in the production of sports equipment and installations for schools. In the present conditions of self-financing of industrial enterprises, this task becomes more complicated.
Apparently, it is advisable to introduce state allowances for children’s outfits. For the coming years, the ratio of the volume of production of children’s and adult sportswear and footwear should be about 3:1 (now it’s the other way around). For this purpose, taxation should be eliminated from the enterprises that produce children's equipment, installations, sports clothing and footwear.

It is necessary to legalize the deductions of a certain percentage of the profits of all industrial enterprises to the social fund for children's health and physical education.

Perhaps the creation of sports co–ops at schools will allow them to independently solve economic issues related to the expansion of the school sports base, including additional payment for teachers, coaches, volunteers, etc. Part of the profit will be deducted to the school by agreement.

It is necessary to create sports campuses at schools, equipped with elementary machines, including those made by the students themselves during home economy classes.

A good material and technical base of preschool and school institutions can be created quite effectively only by successful handling of taxation policy in the whole country. We must eliminate taxation from the funds allocated by enterprises, cooperatives, and joint ventures for the development of the sports and recreational facilities of children's institutions. Only this action will significantly improve the health of children.

12. The Involvement of Social Services, Science and Promotion in the School Physical Education.
Management of the Physical Education of Students.

Over the past 20 years only 3 dissertations on physical education were written and during a 25–year period only a few major works concerning the innovative methods of physical education in schools were published [2; 5; 17].

Nowadays teachers and students need manuals which contain an interesting, and practically useful material.

One of the most important reasons for the lack of interest among adult citizens in the physical education is an unacceptably low level of organizational and educational work on the issues of the physical culture and its vital importance among school–aged children.

During the 11 years of study, children do not get interested in physical culture and sport. Of course, it is highly unlikely that this interest will emerge in adulthood.

The mass media, particularly television, should not just encourage young people to do sport, but also take an active part in organization of such specific campaigns which deal with the reform of the physical education in schools as «Sports Days», competitions «Test yourself» etc. Besides, it is very important to do it skillfully, intelligibly and excitingly [16].

Efforts for the health and physical preparedness of children should be made by non–departmental public system. The fundamental direction should be the expansion of the authority of local Councils of People’s Deputies and the transfer of the management of physical education to them.

In turn, the Ministry of Health, the Academy of Pedagogical Sciences, the Ministry of Education and Science, and the State Sport Committee should build up one whole concept for the health care of children [9].

The state of health of children and adolescents, which determines the main trends in the health of the country's population, is an indicator of the most important achievements of society in the socio-economic, scientific and cultural spheres. The local Soviets of People's Deputies are the real force capable of changing the physical education of the population at the local level. At the same time, the school councils should determine a school curriculum and the place of the motor activity of students in it.

Each body of the local Soviets of People's Deputies should create a fund for the health and physical culture of children with a certain monthly deduction from state and private enterprises. It is necessary to put under the control of the local Soviets of People's Deputies the use of 3 % deductions from the residential rental payments of citizens.

Students’ physical education should become a priority in our national health policy. The state should legislatively fix the need for special care for the health of the younger generation. After all, healthy children are our potential, they are the starting point of recreational activities with the whole population.

Conclusions. In this article the conceptual background of the school system reform of physical education covering a period of 30 years has been described. It was carefully studied and implemented in practice by its authors and their students, it also has to be taken into consideration while creating a new programme for general education schools in Ukraine.

We do not pretend to cover all preconditions of the school system reform: they include the need to implement programs for teaching children swimming, personnel supply problems, and so on.
14. Kuts, A. S. Metodicheskii rekomendatsii o otseknite fizicheskoi podhotovlennosti uchashchikhsia xorodskikh i selskikh obscheobrazovatelnykh shkol razlichnykh klimato-heoadraficheskikh zon strany [Methodical recommendations on the assessment of students’ physical preparedness in urban and rural general education schools of different climatic and geographical zones of the country]. Ternopol: THPY, 100.