

Theoretical Analysis of The Use of Visual Methods in Teaching Movement Activities in Physical Education

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Abstract: This article examines the theoretical and methodological foundations of visualizing the process of teaching motor activity to students in physical education and sports. The relevance of the study is explained by the fact that, in the context of the information revolution, students are required to demonstrate a high level of cognitive activity, namely the ability to identify connections between units of information, show adaptability to changing external conditions, and consolidate knowledge through practical application. The study highlights the importance of visual and ideomotor representations, observation, description, and experimental mastery in the process of teaching motor activity.

Keywords: Physical education, sports education, motor activity, visualization, cognitive activity, technical-tactical skills, pedagogical methodology.

Introduction: Today, as a result of the information revolution, the volume of information flows has increased dramatically, and they have become fast and multidirectional. Therefore, in the educational process, students are required to demonstrate a high level of cognitive activity, such as not only receiving information, but also analyzing it structurally, identifying connections between information units, distinguishing important and unnecessary elements. In such conditions, the student's ability to adapt, that is, the ability to process knowledge and quickly adapt to new conditions, taking into account the variability of external conditions, is of great importance. Also, the relevance of modern education is manifested in the need to combine two main methods of acquiring knowledge. The first method is learning through the perception of the properties of an object: in this process, the student creates knowledge through activities such as observation, description of properties, experimental mastery, their comparison and testing. The second method is comprehension through practical application of acquired knowledge: in this process, the

student consolidates his knowledge by classifying, generalizing, systematizing, forming concepts and definitions, and turns it into practical skills. When these two directions are combined, the effectiveness of the educational process increases significantly and the student's cognitive activity develops further.

In the context of physical education and sports education, this relevance becomes even more important. In the process of teaching motor activity and forming technical and tactical skills, the student is taught not only to repeat the movement, but also to perceive its spatio-temporal properties, to model the movement through visual and ideomotor imagination. At the same time, modern sports and physical education pedagogy requires the use of visualization and multimedia tools, as they enhance the student's ability to perceive, help to understand the complex relationships between movements, and create an opportunity to develop technical and tactical skills at the individual level. Therefore, in the context of the information revolution, the effective organization of the process of teaching movement activities, the

harmonious development of the student's cognitive and practical competencies, as well as the use of visualization and interactive pedagogical tools are emerging as urgent scientific and pedagogical problems in modern physical education and sports education. This urgency also emphasizes the need to improve the quality of the educational process, accelerate the technical training of athletes, and develop methodological recommendations based on an individual approach.

The purpose of the study is to study the theoretical foundations of the process of visualizing the process of teaching motor activities to students in physical education and sports education and to determine its effectiveness.

Research objectives:

- study the theoretical and methodological foundations of the process of teaching motor activities in physical education and sports education;
- analyze the pedagogical possibilities of visualization technologies in teaching motor activities;
- determine the importance of visual aids in the formation of motor skills and competencies in students;
- develop recommendations for improving the methodology of visualization in the process of teaching motor activities.

RESULTS AND DISCUSSION

An important condition for the implementation of cognitive activity is the continuous and integral interaction of emotional and rational methods of reflecting the world. This, in turn, requires the teacher to pay special attention to the use of visualization in the process of learning to use all the potential capabilities of learners (Khutorskoy A.V., Shedrovskiy P.G., Elkonin D.B., etc.). Visualization of information itself accelerates the processes of acquiring knowledge, forming skills and competencies, has a positive effect on the capabilities of the individual, including the ability to perform individual motor activities and their complexes. The high importance of the visual analyzer in the perception of information flows determines the need to form in the individual the ability to transform information into a form that is perceived through vision, which sharply increases the need for visual support of the pedagogical process. In this case, information is manifested both as

a product of consciousness, as a means of cognition, and as an abstract function (Yermolaeva J.Ye., Gerasimova I.N., Lapukhova O.V., Nikulova G.A., Podobnykh A.V., Pak N.I., et al.). At the same time, visualization is considered as the process of creating a visible image of the information presented for the purpose of receiving information through visual perception and transmitting it in order to perform certain functions (Zakharova A., Shklyar A., Popova T.I., Kolesova D.V., et al.).

Physical exercises are used as the main and specific means of social phenomena related to human movement - physical education and sports, and its main components, including physical education, professional and practical physical training, health-improving physical education and adaptive physical education. Therefore, one of the defining parts of the content component of the pedagogical process is the activity aimed at the perception by learners of information describing these movements (Baranova Y.V., Volkov V.Yu., Dikunov A.M., Katkova T.V., Lysenko V.V., Romanov D.A., Khramov V.V.) and information on the use of physical exercises as a means of implementing a set of tasks (Bulgakova N.J., Kozina J.L., Muhammed D.G., Pelmenev V.K., Khramov V.V., Chramov V.V., Podniesienie T.V.).

The effective use of visualization in organizing pedagogical influence requires knowledge of objective, stable, significant and recurring relationships between pedagogical phenomena, processes and their individual components; these are defined as general laws in pedagogy (Anokhin P.K., Aysmontas B.B., Babansky Yu.K., Bepalko V.P., Bogen M.M., Verbisky A.A., Glezer V.D., Gorelov A.A., Khutorskoy A.V., Shchedrovsky P.G., Elkonin D.B., etc.).

However, the issue of using visualization as a means of pedagogical influence on students in none of the areas of physical education and sports has become the subject of deep and comprehensive scientific research. Thus, in the theory of physical education, the laws of ensuring the integral and continuous interaction of methods of emotional and rational reflection of the world of movements have not yet been studied and clarified. This leads to an insufficient assessment of the importance of visualization in teaching motor activities and improving the technical and tactical preparation of athletes, a low level of qualitative perception by the

learner of information flows coming from the educator (teacher, teacher-lecturer, coach). As a result, the pedagogical process slows down, the quality of formation of motor skills and competencies decreases, and the volume of means for performing human motor activities decreases.

The conducted analytical studies show that the quality of performing motor activities directly depends on the harmonious activity of a number of functional systems in the human body. These systems include, first of all, the central nervous system, sensory analyzers (visual, auditory and kinesthetic analyzers), the neuromuscular apparatus controlling movement, and cognitive processes. These systems help the learner understand the spatio-temporal characteristics of movements, perceive the technique of their execution, and correctly perform the movement in certain conditions. The process of successfully mastering motor activity depends not only on physical capabilities, but also on the ability to perceive, imagine, and consciously control movement [1; 2].

Therefore, in modern physical education and sports pedagogy, visualization is considered an important didactic tool in the process of teaching movements. Visualization helps to create a clear idea of the structure of the movement, the technique of its execution, and its spatio-temporal parameters in the educational process. Scientific research shows that the demonstration of movement activity helps students to understand the movement faster, perform technical movements correctly, and effectively form movement skills [3; 4].

However, practice shows that physical education and sports specialists do not have a sufficiently deep understanding of the theoretical foundations and pedagogical possibilities of visualization in the process of teaching movement activities. In particular, the legal connections between the components of visualization and pedagogical processes in the process of forming the volume of movements, professional and practical skills and qualifications in the process of physical education, teaching athletes technical movements, expanding their arsenal of technical and tactical movements, and improving the “core” technical and tactical movements inherent in sports activities have not been sufficiently studied [5].

In the systems of physical education, sports,

professional and practical physical training and adaptive physical education, the process of teaching motor activity is based on a person's conscious perception and understanding of the movement. The process of performing any movement is carried out first by understanding its content, and then by applying it in practical activities. This phenomenon is constantly observed throughout human ontogenesis, but is especially evident in the process of mastering new and complex movements. Visualization mechanisms play an important role in this process, since the perception of movement through vision helps to form its internal model [6].

Studies by many scientists confirm the importance of visual representations and ideomotor processes in teaching motor activity. In particular, according to A.A. Gorelov, V.K. Pelmenev, V.V. Khramov and M. Feldenkrais, the process of mastering any motor activity usually takes place in three stages: first, visual familiarization with the movement, then its verbal description through the auditory analyzer, and finally, the formation of an internal ideomotor representation of the movement [7]. This process serves the student to consciously understand the movement and perfect it through repetition.

The psychological and pedagogical aspects of teaching movement activities are also widely covered in the scientific research of such scientists as N.A. Bernstein, P.F. Lesgaft, L.P. Matveyev, Yu.F. Kuramshin, V.K. Balsevich, V.I. Lyakh. For example, N.A. Bernstein emphasizes in his theory of movement control that the effective execution of movement depends on the coordinated activity of sensorimotor systems [8].

P.F. Lesgaft emphasized the importance of conscious mastery of movement and visual educational tools in the process of physical education [9]. L.P. Matveyev and Yu.F. Kuramshin scientifically substantiated the importance of visual perception and movement imagination in the process of forming movement skills in the theory of sports training [10].

Thus, the effective use of visualization mechanisms in the process of teaching movement activities is one of the important pedagogical conditions of physical education and sports education. With the help of visualization tools, the structure of movements, space-time parameters and execution techniques are more

clearly displayed, which contributes to the formation of a complete picture of movement in students, and the faster and more effective development of their technical skills and qualifications [11].

Thus, the effective use of visualization mechanisms in the process of teaching movement activities is one of the important pedagogical conditions of physical education and sports education. With the help of visualization tools, the structure of movements, space-time parameters and execution techniques are more clearly displayed, which contributes to the formation of a complete picture of movement in learners, the faster and more effective development of their technical skills and qualifications. Therefore, an in-depth study of the theoretical and methodological foundations of visualizing the process of teaching movement activities in physical education and sports education is one of the current scientific and pedagogical issues.

The need to teach movement activities through visualization mechanisms raises a number of problems related to the quality of “information received from the outside”, which requires the development of special approaches to encoding information and presenting it in the form of a visible image. In this case, the visualization mechanism is rooted in the thinking activity of the learner in a specific environment; in this environment, one type of coding of information passes into another type as a result of its understanding in terms of content.

In the process of teaching movement activities, the teacher demonstrates the movement (in his own performance or through a video recording of an ideally performed movement), then verbalizes its technique in slow motion or in parts, allowing the student to receive, reflect and understand the information (if the material is theoretical) or to understand and reflect (if the material concerns the knowledge of movement activities). Reproducing theoretical material - reflecting the level of mastery of movement activities through the implementation of the movement itself - is the basis for forming a feedback system, that is, the flow of information from the student to the teacher. This flow, in turn, creates the basis for making pedagogical management decisions to correct the learning process.

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