

Postmodern Openings

ISSN: 2068-0236 | e-ISSN: 2069-9387

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2022, Volume 13, Issue 4, pages: 231-243 | <https://doi.org/10.18662/po/13.4/516>

Submitted: February 20th, 2022 | Accepted for publication: June 7th, 2022

Innovative Technologies in Physical Education: Adapting to a Postmodern Society

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Abstract: The article highlights innovative technologies in the context of physical education as one of the main factors of postmodern society. The main features of innovative technologies as an effective way to develop personal competencies and the formation of value orientations are defined in the context of the study. Physical education contributes to the development of individual personality traits, as well as forming the health-saving foundations of the development of society in the perspective of evolution. Among current approaches in the methodology of competence formation and its transformation the most important are innovative activities. Innovation is the result of implementing new ideas for the purpose of further practical use to meet any needs of society. In the sphere of physical education innovation is a natural phenomenon, as in many other industries. Innovations do not arise by their own efforts; they are the result of applying the best pedagogical experience and scientific search. The relevance of the study is determined by the need for effective formation of physical health of the individual in the period of postmodern information society. This article analyzes today's innovative technologies in the field of physical education and implementation in the public process. The theoretical and methodological foundations of the concept of postmodern society and innovative technologies were analyzed in the course of the study. The article explores the peculiarities of the use of innovative technologies in the aspect of physical education.

Keywords: *value attitude; competence; worldview; health - saving education; post-industrial society.*

How to cite: Pohrebniak, D., Bolotnykova, T., Farionov, V., Tomich, L., Beseda, N., & Anastasova, O. (2022). Innovative Technologies in Physical Education: Adapting to a Postmodern Society. *Postmodern Openings*, 13(4), 231-243. <https://doi.org/10.18662/po/13.4/516>

Introduction

The relevance of the study is due to the low rates of physical health in society, caused by various factors, in particular, the imperfect system of physical education in the educational process. The relevance is determined by the need to popularize sport, physical culture among humanity, in particular in the period of the postmodern, a feature of which is globalization and informatization, which leads to passive interaction in the process of communication on the Internet. The article examines the history of physical education in Ukraine and around the world, the philosophical, legal and organizational problems of physical education, features of physical education of different groups of people, problems of professional training of teachers of physical education, educational technology of physical exercise, means of rehabilitation, especially the training of athletes and adaptation of the human body to physical stress. Physical education is a sign of a developed society in which there are institutions that promote health and coordinate the activities of educational and extracurricular institutions in the implementation of physical education program. The most important sources of innovation are studies and works of scientists working in the field. As scientific and pedagogical experience, knowledge in the field of physical education, improvement of sports equipment and facilities are accumulated, new ideas for the transformation of sports and training and educational processes emerge. Postmodern trends in society are determined by new worldview manifestations, when people lose faith in the meaning of certain value orientations, realize that past achievements are not relevant and justified. Physical education of a person forms the idea of the value of health in the past as well as in the future. It is this principle that defined the research problem. It is established that innovative technologies are a sign of postmodernism, because innovation is one of the characteristic features of the postmodern. Innovative technologies are most effective both in educational activities and in physical education. The article will examine the peculiarities of the use of innovative technologies in the aspect of physical education. This trend prompts the definition of concepts for the introduction of the basics of health-saving activities for the formation of physical culture. Researchers Maksymchuk I., Maksymchuk B., Frytsyuk V., Matviychuk T., Demchenko I., Babiy I., Tsybal-Slatvinska S., Nikitenko A., Bilan V., Sitovskyy A., Savchuk, I. (2018) identified the basic concepts and trends in the organization of physical culture, as well as analyzed the effectiveness of innovation in the classroom. The concept involves taking

into account personal, social and physiological features of a person. In developing the conceptual foundations of physical education should also determine the goal, objectives and basic means to realize the goal. Therefore, it is important for the research to determine the effectiveness of innovative technologies in the formation of physical culture.

Innovative technology emerged during the period of postmodern society. Scientists Melnyk N., Bidyuk N., Kalenskyy A., Maksymchuk. B., Bakhmat N., Matviyenko O., Matviychuk T., Solovyov V., Holub N. & Maksymchuk I. (2019) believe that innovative technologies emerged in the postmodern society. It is innovation that generates a semantic focus on the creative search for something new, more perfect. The postmodern world represents the worldview of people who have doubts about the appropriateness of adapting the values of past life in the process of the today's information society. The main positions of pluralism, eclecticism, and irony are asserted in the postmodern society. The role of electronic media and digital transformations of the information society is also growing.

Information has become an important part of everyone's life. Information and communication technologies are especially popular in society. ICTs are changing the lifestyle of people who mostly sit and move less, and this trend worsens the physical condition, so we need to form new approaches to motivate a healthy lifestyle and physical education accordingly (Melnyk, et al., 2019). Innovative technologies are relevant in the implementation of physical education in the context of a postmodern worldview.

Gogunov & Martianov (2000) investigated the psychology of physical education, Kalashnyk (2013) made an important contribution to the system of physical training. In his opinion, physical education promotes the development of personal motivation and creates a desire to win. That is, he argues that physical education develops personality, promotes self-realization.

Lebedev (1989) studied the behavior of the individual in extreme conditions. He noted that a person can quickly solve problems when achieving a goal, if he is in extreme circumstances. She makes this decision impulsively, but her motivation is close to extreme. Stolyarenko (2002) identified the features of extreme psychopedagogy. He analyzed the impulsive decisions that a person is able to make in problematic situations. In his opinion, in extreme conditions such decisions are more correct, because a person knows exactly what he needs.

Relevant research has contributed to conclusions in the context of physical education and formation of a view of behavior in a postmodern society that is health-forming (Kritsonis & Jacobs, 2006).

The purpose of this article is to investigate the effectiveness of the introduction of innovative technologies in the context of physical education as an adaptation to a postmodern society.

Theoretical foundations of research on the effectiveness of innovative technologies in physical education

Analysis of theoretical approaches to the meaning of physical culture is covered by such scientists as Gogunov et al. (2000) as one of the important principles of the professional formation of physical culture specialists, who are important characters in the formation of the foundations of health forming activities that direct their activities to the implementation of narrow professional sports and educational goals and subjective-professional approaches to the formation of value their health and life.

Based on the research of Sushchenko (2003), it can be argued that physical culture is one of the most important aspects of modern life, as physical culture develops healthy behavioral skills in the information society. That is, the author argues that health is one of the important values of today's life. Researcher Hobfoll (2001) believes that physical culture is a reflection of human life. Yes, it can be argued that achieving the goal requires some effort. From the analysis of the conclusions of researchers, it can be determined that human behavior is normal when it is healthy.

Thus, physical education is a priority task in the context of the formation of social development trends and the formation of institutions of physical culture development in the postmodern world (Gouzouasis & Bakan, 2011).

In the study of the concept of physical culture is considered as a component of general culture, formed on the basis of the experience of the introduction of active motor actions, natural physiological characteristics to improve physical health. Personal physical culture is a formed way of life in the context of physical education, a certain outlook on one's health, acquired physical competence, knowledge and skills that contribute to the formation of physical and psychological improvement in the context of personal growth in relation to health forming methods and technologies.

Based on the scientists' statements, it is also defined that physical education is part of the educational process, which provides a set of pedagogical actions implemented as a focused systematic work in the form

of physical exercise to improve physical health. Also, physical education involves the formation of a value attitude towards themselves, to life, which determines the motivation to improve their physical health, Johnson (1994). Physical culture unites aspects of worldviews about physical conditions, and it is also the result of a physical education of the individual that defines physical health as a value of human evolutionary development.

In order to form physical health, effective technologies should be used. Pedagogical technology is a combination of forms, tools, methods, principles of educational activities to constantly adjust and improve the approaches to achieve the appropriate learning goals. In the context of the formation of physical culture use health technology as a set of methods, ways, techniques, physical culture aimed at improving the physical condition.

In the context of research and analysis of the theoretical basis it was found that effective in the context of physical education are innovative technologies, Hassan (1987). Innovation in the educational process is a constructive change in the procedure of training and education, reorientation of the essence of the educational process in the context of the formation of the target orientation, form, content, pedagogical conditions for the formation of competencies. Innovative technologies in physical education form the main context of the development and formation of health-saving processes in the formation of physical culture.

Thus, based on the analysis of theoretical approaches to physical education found that the main conditions for the effective formation of health forming worldview are innovative technologies.

Study the effectiveness of innovative technologies of physical education as an adaptation of the postmodern

The worldview of today's man is formed in complex social challenges, because there is an era of rapid change, to which it is difficult to adapt. The world has become immersed in the widespread use of innovative communication technologies in both the educational environment and in the ordinary everyday life of everyone. Information technology is absorbing various communication links between people. This trend affects the change in the worldview of human perception of social challenges, Pinedo (1996). In particular, for a person a new requirement of the time is adaptation to social networks, which on the one hand contribute to the self-realization of the individual, because everyone can find like-minded people in a wide information space, but on the other hand, this distribution of information

breaks the personal space of the person, which can cause emotional dissatisfaction.

According to the challenges of the current social dimension is formed postmodern style direction, the worldview of which is defined by the search for new ideas and values, because the previous values do not satisfy the needs of humanity. In the context of the postmodern, the limitations presented in previous eras are destroyed, for they are an a priori obstacle to postmodern views (Gygli, et al., 2019). A person with a postmodern worldview is constantly being challenged by the new times and searching for solutions to satisfy his needs in the context of a post-industrial, informational, innovative society. Personal growth in the context of the postmodern world occurs through the implementation of new ideas and approaches in various spheres, including in the context of physical education.

Physical education in the era of the postmodern world requires a special approach in terms of worldview conditionality, as well as in the context of the motivational component in the formation of health-saving value of human life, Hytten (1994). Especially relevant physical education in a postmodern society, which expresses the information relationship between people and human life mainly takes place in a virtual environment, rather than physical. Under such conditions, the acquisition of competence in physical education is much more difficult, because the postmodern human worldview contributes to the tendency of each person to comprehend his or her values and needs. In the postmodern, it is difficult to form established public opinion about various processes. Infodemic as a sign of postmodernity, affecting the rapid changes in human perceptions of the world, Gardner (1983). This tendency is favorable for development and evolution, but it is also detrimental to the individual because he does not form established values that would improve his life.

Thus, physical education as a human need, especially in an information society is a prerequisite for prolonging the life of society, Giddens (1991). In order to adapt physical education to the postmodern challenges of society, innovative technologies should be used that are effective and necessary to achieve the goal in the context of the acquisition of competence in physical education.

One of the effective innovative technologies for physical education is personally-oriented, which contributes to greater motivation for physical education separately for each individual. Thus, technology involves mutual learning in the context of the educational process between the physical education mentor and the educational applicant (Glanz, Rimer, & Lewis,

2002). The technology is aimed at taking into account physiological and psychological abilities in the formation of physical health. The technology is quite effective, because it involves an individual approach to the formation of competence, Frydenberg (2002). Personality-oriented education introduces a comprehensive action on the individual by methods of physical education, Haan (1997). Appropriate approach forms the value attitude of the individual to physical health, based on the ability of preference, a subjective vision of their own self-realization of physical health.

Also innovative technologies are interactive technologies, which, unlike traditional teaching, are not aimed at the actual acquisition of knowledge on the basics of physical education, but at their application in practice, Paulhus (1997). In order to apply knowledge effectively, an individual schedule of classes should be developed that includes the application of individual physical education features.

Innovative technologies contribute most effectively to effective physical education in the context of the postmodern, because they are aimed at the individual's perception of the world, his physiological and psychological features, Imel (1998).

In order to determine the characteristics of physical education, a study was conducted. In particular, the effectiveness of innovative technologies in the context of physical education was determined (Weiss, Marmar, & Metzler, 1995). Thus, 50 respondents were involved in the survey during physical education in the context of the educational process, as well as in the context of extracurricular physical education. The methodology chosen for the sample was the "Snowball", which involves inviting respondents by selecting through the Internet networks, and then they involved their acquaintances, thus increasing the number of interviewees to 50 people.

For diagnostics we used methods in accordance with the influence of innovative technologies on the formation of physical education, Hassan (1987). In particular, we determined motivation to exercise and develop their physical health. The methodology is based on a 65-question questionnaire where each respondent was rated on a 4-point system. In the course of the study attention was focused on the motivational profiles that form physical competence (Fig. 1).

According to the indicators, it was determined that the majority of respondents have a high index of motivation when using innovative technologies in the context of physical education. Consequently, it can be argued that respondents should develop and improve their physiological abilities.

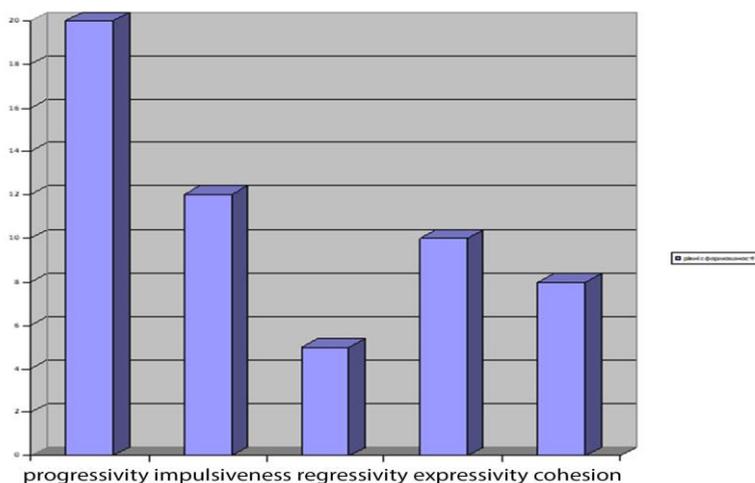


Fig. 1. Levels of formation of the motivational component in physical education
(compiled by the authors)

The adaptation of human perceptions and the formation of the foundations of physical culture in a postmodern environment contributes to the development of certain rules of behavior, Pinedo (1996). Thus, it is important to make the right decisions on training in adapting the innovative and virtual environment, which is especially in demand in the context of distance education, Burbules (2009). Therefore, it is possible to use distance training with the help of online platforms used in the educational environment.

One of the effective methods of forming a physical culture is the involvement of a personal coach, who takes into account individual characteristics and has a special education, Beck (1993). The coach develops an individual training and diet that promotes a healthy lifestyle. An innovative form of physical education will be personal communication between the coach and the person involved in the physical education process.

The need to increase intellectual potential in the postmodern society leads to the urgent issue of intellectualization of physical education, the solution of which is often seen in filling physical education classes with games and other exercises, which require the actualization of intellectual functions, Campbell (1993). However, it is important to maintain the main goal of physical education - the development of motor potential. Motor activity has enormous potential in personal development.

Most often the issues of physical education and intellectual development are considered separately from each other, but the special role of movements in mental development has been shown by many researchers. The development of physical and mental spheres of personality is closely interconnected because, on the one hand, through the implementation of motor activity there is the development of cognitive processes themselves, and on the other hand, cognitive processes allow a person to control and manage movements.

In order to implement the effectiveness of physical education in the postmodern world, it was determined that innovative technologies are effective, including the introduction of coping strategies that determine the main aspects of behavior of participants in the process of physical education in the context of physical training. Coping strategies is one of the technologies of forming the behavior of a person developing his physical health and sports skills in the process of training and conducting, Hobfoll (2001) (Fig. 2).

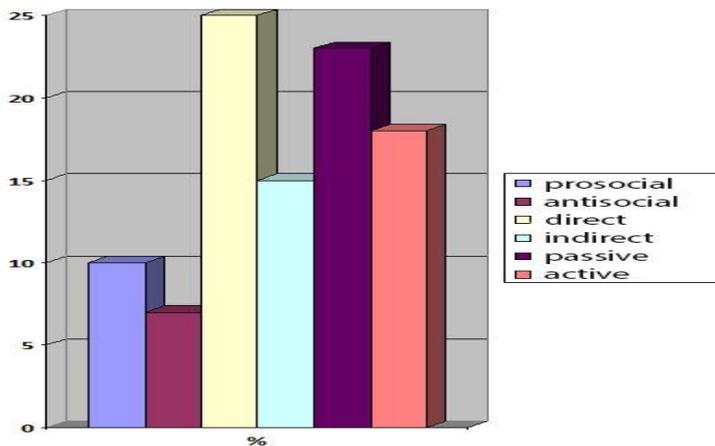


Fig. 2. Indicators of coping behavior in the formation of physical health (developed by the authors)

Thus, the research was conducted, which determined the main content of the formation of conclusions about the effectiveness of innovative technologies as a condition for physical education in a postmodern society. The research was based on the application of the methodology of formation of the motivational component of the

personality, as well as on the use of coping strategies as a factor of sports behavior in physical exercise and training.

Conclusion

In order to determine the effectiveness of innovative technologies in the conditions of physical education, a research was conducted, which became the basis for drawing conclusions about the introduction of technology in a postmodern worldview.

Physical education requires rethinking in the context of the challenges of innovative society. In order to determine the motivation of the individual for the formation of physical culture the basic theoretical and methodological foundations were analyzed and it was found that the main result of the innovative approach is not only familiarization with physical culture, but also motivation for their own high achievements in sports. It was determined that the postmodern worldview needs a more individual approach to the formation of needs, including physical education.

During the analysis, it was determined that in solving current problems, the postmodern worldview of man needs constant updating and modernization. Staying a large number of people in a virtual environment causes the need to actualize physical education.

Innovative technologies in a postmodern environment determine the behavior of people which aimed at the self-realization of individual approaches. Therefore, the most popular are personality-oriented and interactive technologies of skills formation in the context of physical education.

This trend has determined that innovative technology contributes to the formation of physical health and most adapted to human needs in a postmodern world, which was examined by the motivational component of personality.

Acknowledgement

The Author 1 analyzed scientific research on the problem and scientific publications, which became the basis for characterizing the concept of innovative technologies and physical culture.

The Author 2 worked through the data on the most effective innovative technologies in physical activity and presented his research in the article.

The Author 3 summarized the theoretical and methodological basis of scientific works, created a written text and presented definitions of concepts and terms on the relevant topic.

The Author 4 analyzed and put in order the list of literature of domestic scientists.

The Author 5 researched and systematized the list of literature of foreign scholars.

The Author 6 identified the most characteristic features of motivation in physical education.

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