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The innovative structure of physical education lessons for students in romanian educational institutions (late XIX - early XXI Century)

La estructura innovadora de las lecciones de educación física para estudiantes en instituciones educativas rumanas (finales del siglo XIX - principios del siglo XXI)

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Abstract

The research aims to establish the regularity of promoting the implementation of the innovative structure of PE lessons for students in Romanian educational institutions (late XIX - early XXI century). As a result of the study, it was found that students of educational institutions noted that coordination exercises (98.3%), game and competitive exercises (95.5%), breathing exercises (94.1%), rhythmic exercises (93.8%), exercises in various and imitation walking (92.4%), etc. have a positive impact on the development of physical culture in students. It was found that teachers most often use the following game exercises in the innovative structure of physical education lessons: "One and Two" (95.6%), "Do this, ido that!" (95.5%), "Crabs and Shrimps" (89.7%), "Train" (89.6%), "Chapel Hijack" (89.2%), "Boat" (89%), etc. It has been found that teachers use cooperative group learning (89.7%),

interactive methodological and organizational complex (89.2%), and multimedia technologies (89%) in PE lessons.

Keywords: innovative lesson structure, physical education, students, educational institutions, Romania.

Resumen

La investigación tiene como objetivo establecer la regularidad de la promoción de la implementación de la estructura innovadora de lecciones de educación física para estudiantes en instituciones educativas rumanas (finales del siglo XIX - principios del siglo XXI). Como resultado del estudio se encontró que los estudiantes de instituciones educativas señalaron que los ejercicios de coordinación (98,3%), ejercicios de juego y competitivos (95,5%), ejercicios de respiración (94,1%), ejercicios rítmicos (93,8%), ejercicios en varios y la imitación de caminar (92,4%), etc. tienen un impacto positivo en el desarrollo de la cultura física en los estudiantes. Se encontró que los profesores utilizan con mayor frecuencia los siguientes ejercicios de juego en la estructura innovadora de las lecciones de educación física: "Uno y dos" (95,6%), "Haz esto, ¡haz aquello!" (95,5%), "Cangrejos y Camarones" (89,7%), "Tren" (89,6%), "Chapel Hijack" (89,2%), "Barco" (89%), etc. aprendizaje en grupo (89,7%), complejo metodológico y organizativo interactivo (89,2%) y tecnologías multimedia (89%) en las clases de EF.

Palabras clave: estructura de lecciones innovadoras, educación física, estudiantes, instituciones educativas, Rumania.

1. Introduction

Any educational system is constantly dealing with the education and training of the younger generation. This phenomenon of education lies in anticipating the evolution of society as a whole and in determining the future needs of students to ensure that students adapt to differentiated variables such as the environment, technology, or legal conditions (Rus et al., 2019 Sîrghi & Sîrghi, 2020).

Physical education of students has a long tradition in the educational system of Romanian educational institutions. The first features related to the teaching of physical education in Romanian educational institutions dating back to 1776. In the first half of the nineteenth century, physical education was not one of the leading disciplines in the educational system. In 1832, two physical education teachers worked in the educational institutions in the Principality of Wallachia. The official introduction of physical education as an academic discipline in Romanian educational institutions was accepted by the Law on Education of 1864, where Article 113 stated that physical education and vocal music were compulsory educational disciplines in Romanian educational institutions (Hanțiu & Stănescu, 2011).

The period of the late 19th century - the first third of the 20th century in Romania is marked by the intensive development of physical education and sports among all segments of the population, especially children and youth. During this time, Romania saw the intensive development of public organizations in the relevant sports - clubs, federations, as well as "professional emigration". Coaches and instructors in gymnastics, fencing, athletics, and other sports came to Romania.

There was the implementation and introduction of legal acts in the period from the end of the 19th to the beginning of the 21st century. These acts regulated the formation of the system of physical education for students, and the government made the first attempts to organize training for teaching physical education (Tsybanyuk, 2020).

As a result of the implementation of new legal acts aimed at regulating the education system (European Commission, 2011), new curricula have been developed for most school subjects, including physical education. The development of the curriculum for a given school subject is determined by the realities faced by the educational process, the legal system, the social order, the learning needs, and the cultural and geographical context in which the process takes place (Radu et al., 2015; Talaghir & Icomonescu, 2017). The desire to adapt and update the physical education curriculum for secondary education is part of a broader process of modernizing Romanian education in this direction. Therefore, scientists are trying to achieve a common vision of the importance of teaching PE to students in Romanian educational institutions (Rus et al., 2019).

The research aims to establish the regularity of promoting the introduction of an innovative structure of physical education lessons for students in Romanian educational institutions (late XIX - early XXI century). A survey will be conducted on the Internet to determine the ability of educational institutions to effectively use innovative methods of PE for students.

Research objectives of the article:

1. To survey students to establish certain features of the innovative structure of physical education lessons for students in Romanian educational institutions (late XIX - early XXI centuries).
2. To determine the dynamics of the evolution of the structure of physical education lessons in Romanian educational institutions (the 90s of the XX - XXI century).
3. To differentiate the parts of the physical education lesson of Romanian schoolchildren.
4. To analyze the methods, means, and techniques used to study the innovative structure of physical education lessons for students in Romanian educational institutions.
5. To analyze the structure of physical education lessons in Romania.

2. Literature Review

Recent studies show that in the works of Romanian scholars, which have been united in the historiography of scientific research, the peculiarities of PE of the population of the Romanian lands of different historical times have been analyzed - the recognition of PE as the basis for the formation of intellectual, conscious, patriotic united youth, the role of physical exercises in maintaining health, strengthening performance and harmonious development of the body, the emergence and introduction of school physical education and sports, development of professional Romanian terminology, actualization of folk bodywork traditions, physical activity needs of girls and the genesis of the system of training qualified specialists (Grosu, 2013, Ionescu, 1972; Ionescu, 1982).

Over the past 50 years, physical education has undergone a differentiated shift from a traditional focus on sports skills to a broader emphasis on health and fitness and lifelong physical activity (Bocarro et al., 2008; Jago et al., 2009; McKenzie & Kahan, 2008). The reason is that all over the world, all PE programs are being reduced or minimized and/or eliminated from primary and secondary school curricula (Hardman & Marshall, 2009; Puhse & Gerber, 2005).

Health, leisure, and physical education professionals around the world play an important role in developing strategies to address the significant increase in the number of obese children and youth. Due to modern conditions, there is a need to use the latest forms of pedagogy. In addition, more effective integration of health and physical education programs for students is needed. Attention should also be paid to supporting the development of a healthy, active lifestyle throughout life. It is necessary to explore ways to use innovative technologies in teaching physical education in educational institutions, as well as to review the way teachers are trained in PE (Edginton et al., 2011a; Edginton et al., 2011b; Cârstea, 1999; Chiriță, 1972; Dragnea, 2000; Mitra, 1974; Prodea & Văidăhăzan, 2010).

According to the WHO, the state of health of an individual is a representation of a person's good physical, mental, and social condition. As health is considered the main goal in all national, regional, and local strategies, it has an impact on the social, demographic, and individual levels. At the national level, the Romanian Ministry of Health implements programs aimed at preventing overweight and obesity by promoting a healthy and balanced active lifestyle. An example of the desire to implement the WHO recommendations in this regard is the organization of pan-European events, such as the European Anti-Obesity Day. The Ministry of Education, Youth, and Sports of Romania is the body that regulates the number of educational hours for physical education curricula and participates in the development of strategic projects through structural funds aimed at promoting a healthy lifestyle through special educational programs (World Health Organization, 2010). The law regulating PE and sports activities in Romania states that "physical education and sports are state-supported activities of national interest" (Portal Legislativ, 2000).

The use of modern programs of physical education and health work with students involves the modernization of the educational process in Romanian educational institutions in all forms of physical education based on the use of innovative pedagogical technologies. Experts focus on the fact that a radical restructuring of the educational process of physical education in educational institutions is needed. It is important to improve the educational content in the PE discipline, especially its main structural components (theoretical, practical, and pedagogical control). It is also essential to implement innovative approaches in the structure of PE lessons. These approaches involve taking into account the psychophysiological patterns of students' development, selecting the appropriate optimal level of students' physical activity, and satisfying the needs of students in the appropriate types of physical exercises.

Modern innovative approaches to the acquisition of theoretical knowledge in the discipline of physical education, which are interconnected with the formation of the basic foundations of a healthy lifestyle of students, the acquisition of knowledge by students about the benefits of physical exercise, do not always take into account the peculiarities of development and interests of students. This problem necessitates the search for innovative approaches to the process of forming theoretical knowledge in students, which is noted as a compulsory component of physical

education, which to some extent influences the involvement of students in sports. Theoretical training in the discipline of physical education is obliged to play the role of the most basic factor that accentuates the full life of the individual, promotes the disclosure of differentiated inclinations and abilities, and the acquisition of skills in any type of professional activity (Pangelov et al., 2022).

The current curricula of Romanian educational institutions in physical education and sport are designed for primary, secondary and high school, which currently represent a somewhat differentiated structure from one educational cycle to another. The physical education curriculum as a normative document of the educational process establishes and allows each teacher to form specific skills in students, using as means the content categories that he or she considers effective, corresponding to the characteristics of the class and specific conditions of activity. The PE curriculum is concentric in nature in the sense of repeating content to reinforce skills and to promote the phenomenon of transfer of new skills and the development of physical and mental abilities. As a result, the content taught during one school year will be repeated in the next school year. The current form of the physical education curriculum is a transitional stage to the future approach, which will be based on the development of a new unified system of physical education (Badicu, 2015).

Thus, it can be assumed that physical activity plays a truly important and even dominant role in the healthy growth and development of students. Moreover, it can be seen as a developmental factor not only in the physical but also in the psychological sense of the word, as a factor that integrates practical skills into everyday life. Thus, the previous curriculum (Ministry of Education and Research, 2003; 2004; 2005) was replaced by new curriculum documents (Ministry of National Education, Research and Innovation, 2009; Ministry of National Education, 2013), which are applied since the 2015-2016 academic year (Ministry of National Education, 2017).

Thus, the study of the innovative structure of physical education lessons for students in Romanian educational institutions (late XIX - early XXI centuries) is insignificantly reflected in scientific publications in the form of theoretical research and practical research. However, the issue of promoting the implementation and introduction of an innovative structure of physical education lessons for students in Romanian educational institutions remains relevant and open for further research.

3. Methodology

The realization of the purpose of this study involves the use of such research methods as:

- systematic and logical analysis to determine the structure of physical education lessons in Romania;
- the method of information synthesis to determine the dynamics of the evolution of the structure of physical education lessons in Romanian educational institutions (the 90s of XX - XXI century);
- generalization of the latest scientific publications related to the analysis of methods, tools, and techniques used to study the innovative structure of physical education lessons for students in Romanian educational institutions;

- a comparison method for differentiating parts of the physical education lesson of Romanian schoolchildren.

To determine certain features of the innovative structure of physical education lessons of student youth in educational institutions of Romania (late XIX - early XXI century), the study was conducted using descriptive statistics, the data of which were provided as a result of a survey using MS Forms Pro. The survey was conducted to determine the perceptions of students about the innovative structure of physical education lessons for students in Romanian educational institutions. An online survey was conducted from October 24, 2022, to January 20, 2023, which collected information from 2500 students of the following educational institutions: Colegiul Național De Informatică "Tudor Vianu", Colegiul National "Vasile Alecsandri", Colegiul Național "Zinca Golescu" Pitești, Colegiul Național 'Dr. Ioan Meșotă' Brașov, Colegiul Național "Gheorghe Lazăr". These participants answered questions about their learning experience, motivation, expectations, and overall satisfaction with the innovative structure of physical education lessons. This online survey addressed the following research questions: 1. What exercises in the innovative structure of physical education lessons in Romanian educational institutions have a positive impact on the development of physical education in students? 2. What game exercises are most often used by teachers in the innovative structure of physical education lessons in Romanian educational institutions? 3. What innovative technologies are used in the innovative structure of physical education lessons for pupils' youth in Romanian educational institutions?

4. Results

It should be noted that the structure of physical education lessons in the country is constantly evolving - the number of parts, their purpose, objectives, duration, etc. are changing (Figure. 1).

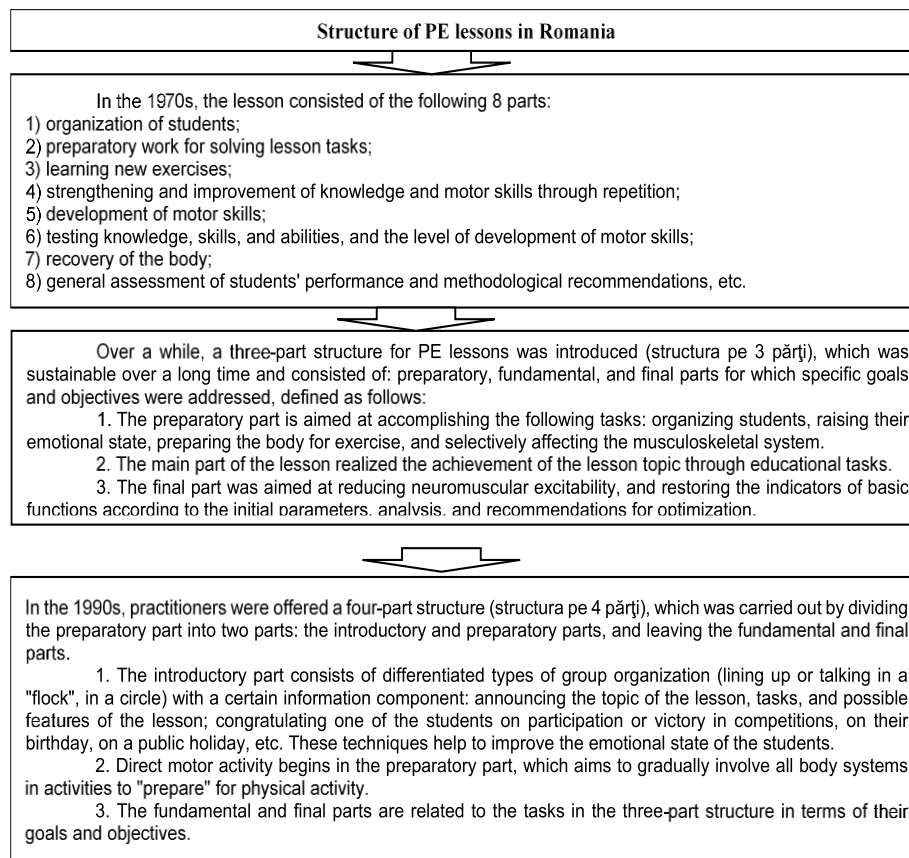


Figure 1. Structure of PE lessons in Romania

Source: Compiled by the authors based on official data of Ardelean (2000), Serghi (2016), Ministry of Education (1989), Portal Legislativ (2000), and Didactic Premium (2022)

It has been found that the three-part structure is also used in modern conditions - during training or in physiotherapy sessions: "where the content and purpose of the lessons are more limited". A comparative characterization of the purpose of each of the four parts (structura pe 4 părți) of a PE lesson is presented in Table 1.

Table 1.

Comparative characteristic of parts of PE lesson of Romanian schoolchildren

Allocation options	The purpose of the introductory part		The purpose of the fundamental part	The purpose of the final part
	Introductory	Preparatory		
Three-part structure	-	Gradual involvement in physical activity	Achievement of the immediate topic of the lesson	reduction of neuromuscular excitability, restoration of basic functions according to the initial parameters, analysis, and recommendations for optimization
Four-part structure	Announcing tasks, organizing the group, and improving the emotional state of students	Gradual preparation of the body for exercise		

Source: Compiled by the authors.

Reforming the system of PE for Romanian students, initiated by Law No. 69/2000, has made adjustments, including to the structure of the main form - the lesson. The basis of the changes was the introduction of an innovative structure by "links" or "moments" (*structura pe verigi*), a characteristic feature of which was the division of content into small units in a constant, coordinated sequence. Let's consider the links (L) of the modern structure, which are schematically represented in Figure 2, which include:

- L 1. Organizational measures;
- L 2. Preparing the body for exercise (general "warming up" of the body);
- L 3. Exercises of selective influence on the musculoskeletal system: "optimization of physical development";
- L 4. Exercises to develop (or test) motor skills (speed, dexterity);
- L 5. Realization of the lesson topic: "teaching, strengthening, improving and testing motor skills".
- L 6. Is dedicated to the development and monitoring of motor skills such as strength and/or flexibility and endurance.

The next two (L7 and L8) fulfill the tasks of the final part and provide for the body's recovery after exercise (L7) and an informative component: analysis, recommendations, acknowledgments, announcements, etc. (L8).

The field "Three-part structure"	The field "Four-part structure"	The field "Structure by links"
The field "Preparatory part"	The field "Introductory part" The field "Preparatory part"	Oval L1 Oval L2 ----- Oval L3
The field "Fundamental part" ----- The field "Final part"	The field "Fundamental part" The field "Final part" -----	Oval L4 ----- Oval L5 Oval L6 Oval L7 ----- Oval L8

Figure 2. Evolution of the structure of PE lessons in Romanian educational institutions (the 90s of the XX - XXI century)

To analyze the innovative structure of physical education lessons for students in Romanian educational institutions, a survey of students of the following educational institutions was conducted: Colegiul Național De Informatică "Tudor Vianu", Colegiul National "Vasile Alecsandri", Colegiul Național "Zinca Golescu" Pitești, Colegiul Național "Dr. Ioan Meșotă" Brașov, Colegiul Național "Gheorghe Lazăr". They answered the questions: "Which exercises in the innovative structure of physical education lessons in Romanian educational institutions have a positive impact on the development of physical culture in students?" and the students noted that coordination exercises (98.3%), game and competitive exercises (95.5%), breathing exercises (94.1%), rhythmic exercises (93.8%), exercises in various and imitation walking (92.4%), etc. have a positive impact on the development of physical culture in students (Figure 3).

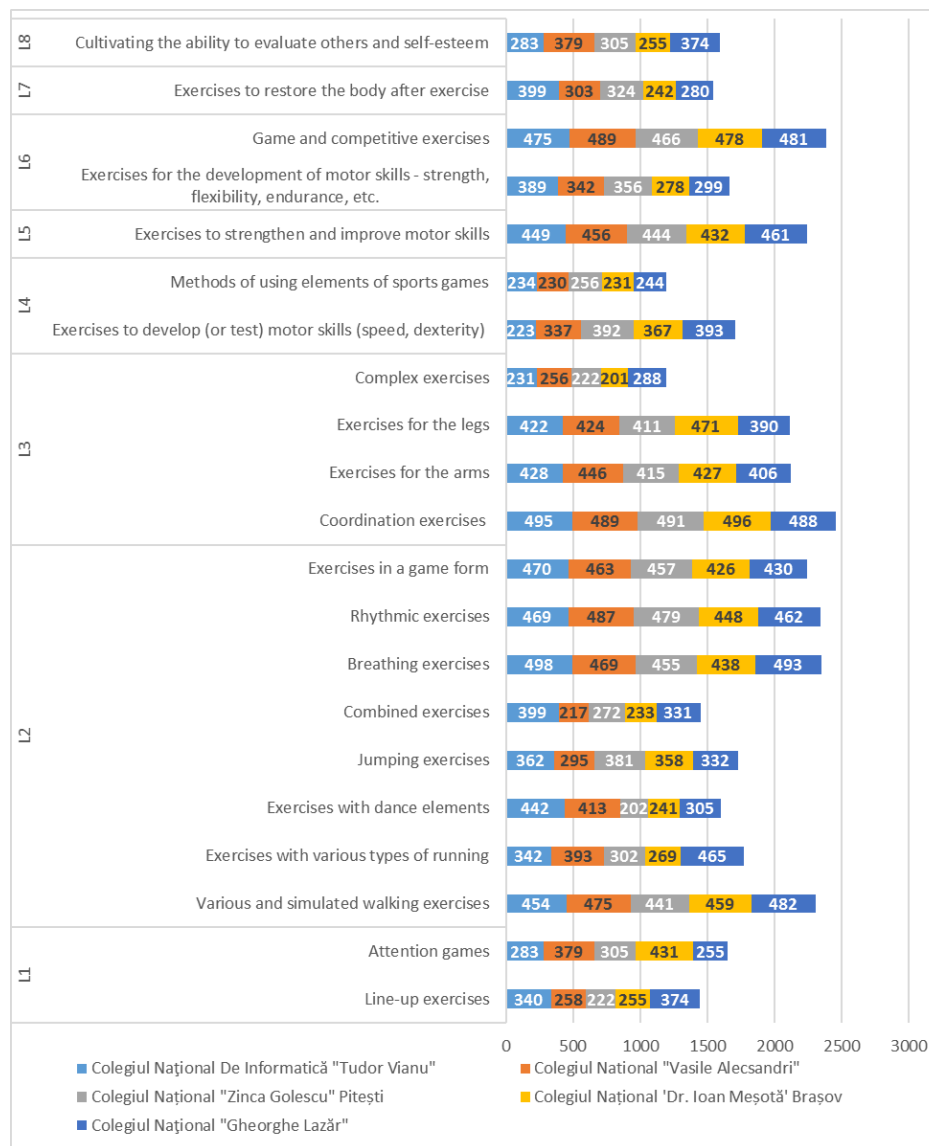


Figure 3. What exercises in the innovative structure of PE lessons in Romanian educational institutions have a positive impact on the development of physical culture in students?
 Source: Compiled by the authors.

It was found that teachers most often use the following game exercises in the innovative structure of physical education lessons in Romanian educational institutions: "One and Two" (95.6%), "Do this, do that!" (95.5%), "Crabs and Shrimps" (89.7%), "Train" (89.6%), "Chapel Hijacking" (89.2%), "Boat" (89%), etc. (Figure 4).

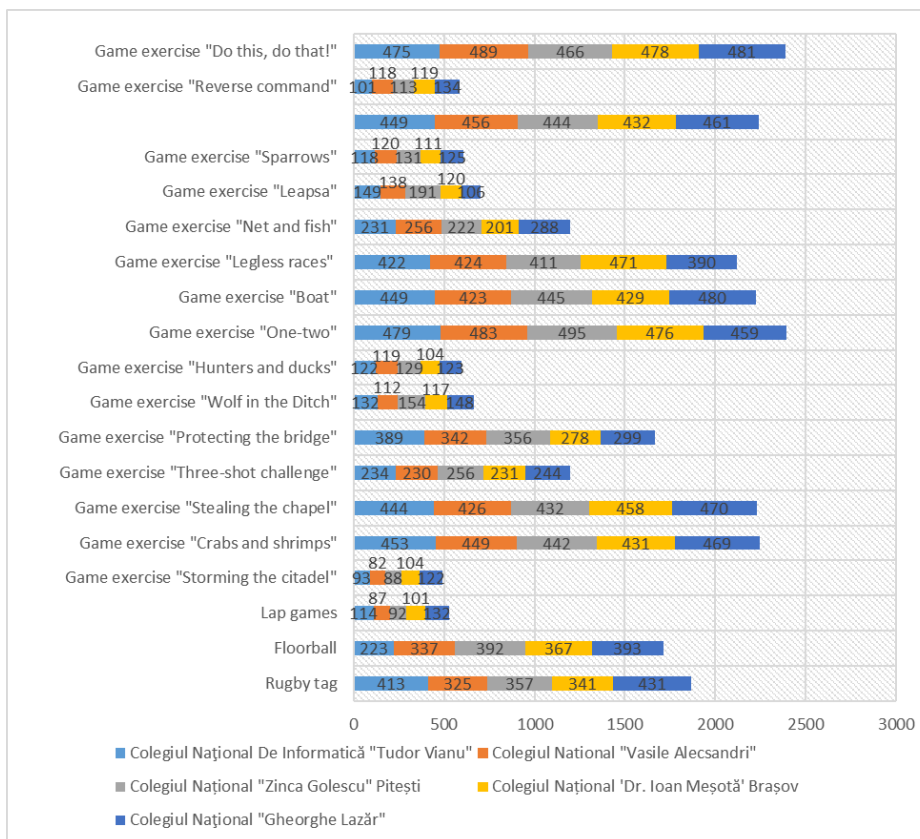


Figure 4. What game exercises are most often used by teachers in the innovative structure of PE lessons in Romanian educational institutions?

Source: Compiled by the authors.

To analyze the use of innovative technologies in the innovative structure of physical education lessons for students in Romanian educational institutions, it was found that teachers use: cooperative group learning (89.7%), interactive methodological and organizational complex (89.2%), multimedia technologies (89%) (Figure 5).

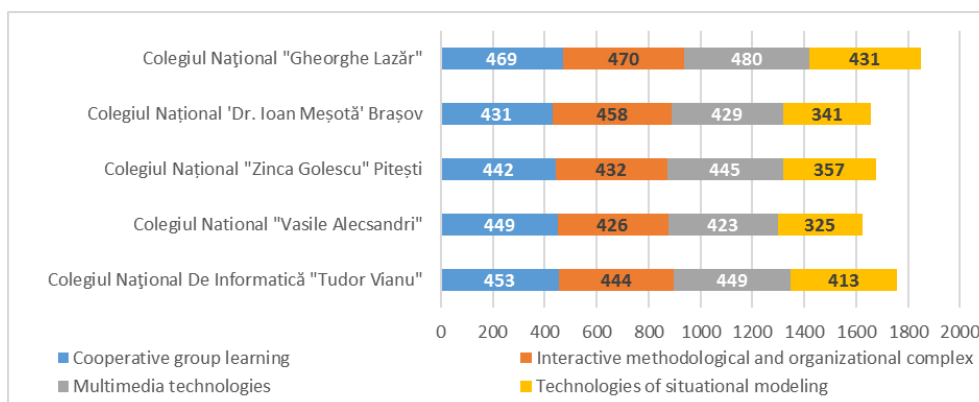


Figure 5. What innovative technologies are used in the innovative structure of PE lessons for students in Romanian educational institutions?

Source: Compiled by the authors.

The effectiveness of the innovative structure of physical education lessons for student youth in Romanian educational institutions in 2022 was evaluated. A significant number of students noted that the innovative structure of physical education lessons has a positive impact on the development of physical culture in student youth (95.5%). A smaller number (3.3%) were not sure about the positive impact of the innovative structure of physical education lessons on the development of physical culture in students. The rest of the respondents noted that the innovative structure of physical education lessons contains certain disadvantages (1.2%) (see Fig. 6).

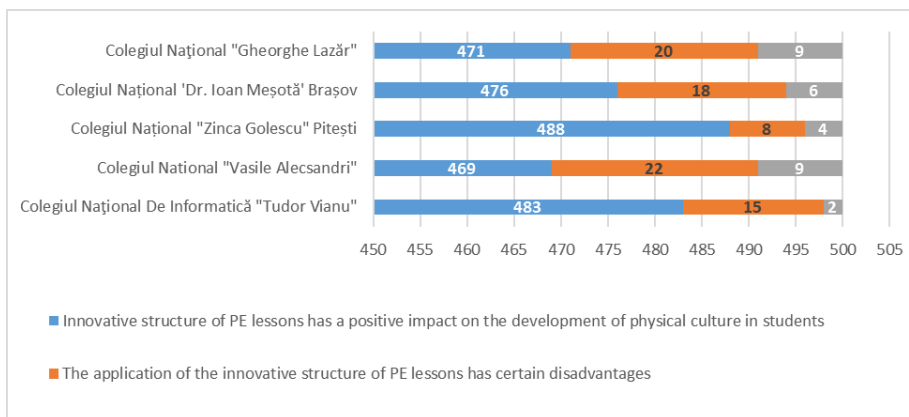


Figure 6. Analysis of the innovative structure of PE lessons for students in Romanian educational institutions

Source: Compiled by the authors.

5. Discussion

The results of the study of the innovative structure of physical education lessons for students in Romanian educational institutions (late XIX - early XXI century) led to the following conclusions. Nowadays, education all over the world is undergoing a process of deep modernization, primarily due to modern trends and policies of using innovative technologies in the preparation, the conduct of classes, and the assessment of knowledge (Șirghi & Șirghi, 2020).

It has been determined that everyone, both theorists and practitioners, are inclined to believe that regardless of where, when and with whom the physical education lesson is held, it must necessarily solve the problem of preparing children as a subject of influence for the load - emotional, physical, mental; optimal (Ardelean, 2000; Serghi, 2016); implementation of this load with the appropriate reaction of the body and adaptation to it (Grosu, 2013); gradual transition from a state of activity to a state of rest (Ionescu, 1972; Ionescu, 1982).

It has been established that the innovative structure of the physical education lesson for schoolchildren in modern Romania allowed for the use of the experience of previous theoretical and methodological developments, to consider the specifics of the present. The emergence of modern types of physical activity and sports as well as their rapid spread were considered. Moreover, it has been possible to notice changes in the interest and motivation of children and youth to exercise. The impact of the dramatic difference in the material and technical support of schools and the different levels of training of specialists has also been identified. It was possible to introduce new ideas for organizing this subject in an educational institution. Thus, one of the

ways to optimize the process of physical education of students, which is successfully used by Romanian teachers, was to diversify the content of the physical education lesson through the use of coordination exercises (98.3%), game and competitive exercises (95.5%), breathing exercises (94.1%), rhythmic exercises (93.8%), exercises in various and imitation walking (92.4%), etc.

Although modern PE lessons are organized in Romanian educational institutions according to a link structure, experts are still discussing the effectiveness of the implemented changes in the organization of lessons, namely the innovative structure of physical education lessons, and determining their impact on the content of physical education of students (Serghi, 2016).

Consequently, in the process of using the innovative structure of physical education lessons for students in Romanian educational institutions (late XIX - early XXI centuries), teachers will face differentiated problems following changes in educational requirements for students. Its in-depth study will lead to increased attention to improving the innovative structure of physical education lessons for students in Romanian educational institutions to promote the development of physical culture in students.

6. Conclusions

As a result of the analysis of the innovative structure of physical education lessons for schoolchildren in Romanian educational institutions (late XIX - early XXI century), it was found that many problems require special methodology and research methods. The results of the study have shown that the use of such innovative methods of PE of student youth not only diversifies physical activity but is also considered useful for their development. These methods have some advantages over other types of physical activity. They are relevant for modern children and do not require expensive equipment. The elements can be mastered by children of both younger and older preschool ages. Thus, in the course of the study of modern methods of teaching and upbringing in physical education lessons in Romanian educational institutions, it was found that for an effective and high-quality physical education lesson, the teacher should select differentiated teaching methods that will interest and motivate students to engage in physical education. However, it is not necessary to include almost all existing teaching methods in one lesson, as students may not understand their idea and the need for their further implementation during the lesson.

The practical significance of the study is that the conclusions and recommendations developed by the author and proposed in the article can be used in the process of forming a new innovative structure of physical education lessons for students in Romanian educational institutions, and the widespread use of the innovative approach should be taken into account when developing new curricula of the new standard. Promising directions for further scientific developments in this area are the study of advanced foreign experience in the formation of an innovative structure of physical education lessons for students in educational institutions. Further research can be aimed at improving the curriculum using innovative methods based on an innovative approach that will stimulate the educational sphere and improve teaching activities in the educational space to promote the development of physical culture in students.

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