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Didactic-methodological principles in physical education teaching

Nikola Aksović¹, Bojan Bjelica², Ljubinko Jovanović³, Milan Zelenović², Ljubica Milanović²

¹*Fakultet Sporta i Fizičkog Vaspitanja, Univerzitet u Nišu*

²*Fakultet Fizičkog Vaspitanja i Sporta, Univerzitet u Istočnom Sarajevu*

³*Osnovna škola „Branko Radičević“, Kraljevo, Serbia*



Abstract. *In primary schools, it is very important to cover and master all didactic-methodical contents of physical education classes, develop students' motor skills and monitor their development. The primary goal of this review of current literature is to provide assistance and support to physical education teachers in strengthening competencies for the teaching area, and to show the importance and role of didactic-methodological principles in physical education teaching. The principle of awareness and activity has the greatest importance among didactic principles, because it starts from the essence of the teaching process, which consists of training, learning, repetition and practice. The realization of tasks in the teaching of physical education cannot be realized without adequate exercises, devices, props as well as without appropriate didactic principles.*

Key words: *Teaching physical education, didactics, methods of physical education, motor skills.*



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Correspondence to: *Dr. Bojan Bjelica, Faculty of Physical Education and Sport, East Sarajevo Alekse Santica 3, 71420 Pale, Bosnia and Herzegovina - Tel.: +38765057961 - Email : vipbjelica@gmail.com*



Introduction

Physical education is a complex and organized educational process, based primarily on learning¹. The changes that occur through learning and practicing physical education classes should strive to be permanent. Learning various movement techniques and elements from various sports are closely related to education, so it can be said that the education of students does not go without education. Learning in physical education is a progressive and permanent change of the individual created under the influence of exercise and the environment, and caused by the needs of the individual who is changing².

The teaching of physical and health education in primary and secondary schools is the key to development in childhood, which continues in adolescence³. However, the results of the study Zrnzević (2007) show a declining trend in motor skills in students of both sexes⁴. Their monitoring should be in the function of the tasks of modern physical education aimed primarily at preserving and improving the health of students, their creative and working abilities, developing physical abilities, learning different skills and habits, but also getting used to physical effort. The results of the research obtained by the authors^{5,6} indicate that in primary school students the indicators of total physical preparation are not adequate without knowledge of motor skills because based on knowledge of their level, goals and tasks can be successfully defined in teaching and training work^{7,8}. Young et al. (2006) recommend a minimum of 30 min to an optimal 60 min of physical activity during one day to ensure proper child development⁹. Therefore, the teaching of physical education in primary and secondary schools is primarily focused on the development and improvement of motor skills, but the role of teaching physical education in the educational process is also very important.

In primary schools, it is very important to cover and master all didactic-methodical contents of physical education classes, develop students' motor skills and monitor their development. In addition, it is important that students master the structure of the content movement from collective sports and have the necessary level of theoretical education in order to later accept the chosen sport as an integral part of their lives¹⁰.

Within the didactic-methodical contents of physical education classes, it is important to identify the motor abilities of students and to monitor their development in the process of



applying the means of physical exercises, according to their individual abilities and characteristics. Lack of physical exercise, especially in the sensitive stages of development, is decisive in the formation of motor abilities. The negative effects of insufficient weekly number of classes can only be mitigated by adequate planning and implementation of each physical education class, improvement of material and spatial conditions for the implementation of planned contents and permanent training of staff with mandatory monitoring of their work and evaluation of student achievements in motor skills and sports-technical transformation. achievements^{11,12}.

Therefore, the primary goal of this review of current literature is to provide assistance and support to physical education teachers in strengthening competencies for the teaching area, and to show the importance and role of didactic-methodological principles in physical education teaching.

Theoretical consideration of the problem

History and development of physical education classes

Monitoring of physical development and development of motor abilities of children and youth within the framework of physical education classes is done for a relatively long time. In the didactic sense, the teaching class, as an organizational form of teaching work, began to be applied from the 17th century, and has retained the educational component until today. It had certain goals and tasks that changed over time, as well as the structure and content that have been maintained to this day with minor corrections. First of all, we are thinking of the didactic foundations that the Czech pedagogue Jan Amos Komenski (1592-1670) gave and began to apply to this form of work. For the first time in the 17th century, this teaching process was introduced as a school teaching area in Moravia, which, in addition to working on general didactics, where some new and today known principles were founded, Komenski, like other humanists, also practiced physical education and advocated that each school has its own training ground¹³. The philosopher Jean-Jacques Rousseau, the teacher and writer Johann Bernhard Basedov thought in the same direction. Through their work, they all contributed to the development of physical education and find their place in the educational system. However, the physical education class was first designed by Pehr educator Henrik Ling (1776-1839), the founder of physical education in Sweden, who later developed his



son Hjalmar Ling (1820-1886). The structure of the class is based on anatomical-physiological principles, which inevitably led to schematic formalism not only for gymnastics, but also for other systems of that time. Physical education is becoming a school subject, but it is not introduced in all schools and in all grades, which was dictated by the level of development of individual countries. However, In the middle of the 19th century, gymnastics was introduced in schools in almost all European countries, especially in Germany, France, Italy and Russia. Thus, the conditions for further development of physical education were created on the foundations that were laid relatively long ago².

In recent years, papers have been published, especially in the United States of America (USA), which discuss certain problems and issues related to monitoring the physical development and development of motor skills of children and youth in the framework of physical education classes¹⁴⁻¹⁷. It should be noted that one of the most important issues discussed in these papers is the question of the appropriateness of monitoring physical development and the development of motor skills, as well as the didactic role in teaching. Chronological reviews of current literature in the development of testing and monitoring of physical development and development of motor skills of children and youth in the United States, it can be seen that in the last three decades there have been some conceptual changes in monitoring these phenomena in children and youth^{18,19}.

At the end of the XX century until today, in the USA and in some European countries, a new concept appears in the perception of the expediency of monitoring physical development and development of motor abilities of students in physical education classes in relation to previous concepts. The new concept is based on research results that indicate a link between physical development, motor skills and health, or, as the authors in the Anglo-Saxon literature more often state and combine under the phrase, "physical fitness" or "physical fitness" - and health²⁰.

Didactic principles in physical education teaching

Didactics as a science of education has created several teaching methods that are used in primary and secondary schools. Teaching methods derive from teaching practice because each teacher is constantly researching and supplementing them with various innovations. Didactic principles are the basic requirements that are set before every teacher, which he, as a rule, should, as much as possible, comply with during the actual teaching²¹. All the principles that are applied



in the teaching of physical education are interconnected, ie. they form a unity and represent scientific knowledge that is adapted to everyday teaching practice.

The teaching principle, a term derived from the Latin word "principium" means general principles and expresses the methodological laws of the teaching process and is the leading guideline in concrete work. In the teaching of physical education, the principles represent the basic and general principles that the teacher must adhere to during the processing of teaching content, organization and other methodological procedures and activities. They are present in all teaching areas with the differences that exist between them. These differences and specifics are based on: the laws of motor learning, the laws of biological development as well as the goals and objectives of physical education teaching²:

Krneta (1979) states the following pedagogical principles²²:

- the principle of scientific and educational orientation of teaching,
- the principle of harmonization of teaching according to the age of students,
- the principle of individualization of teaching work,
- the principle of rationality and systematic teaching,
- the principle of systematic and gradual teaching,
- the principle of conscious student activity,
- the principle of obviousness,
- the principle of connection of theory with practice and
- the principle of permanence of knowledge, skills and habits.

Zrnzević (2016) points out that the following principles can be distinguished in the teaching of physical education²³:

- principle of scientific basis;
- the principle of obviousness and conscious activity;
- the principle of health-educational orientation;
- the principle of gradualness and systematicity;
- principle of individualization;
- the principle of age-appropriateness and practical applicability and
- principle of permanence of knowledge, skills and habits



Milenković & Simić (2009) state with regard to the nature, course and content, ways and possibilities of realization of tasks, in the teaching of physical education I can single out the following pedagogical principles²:

- principle of awareness and activity,
- the principle of obviousness,
- the principle of systematicity and gradualness,
- principle of accessibility and individuality and
- principle of durability and knowledge-dosing.

Among the stated principles, there is a dialectical unity and mutual connection through which they express their full value. In essence, it is not possible to realize one principle without another, for example: the principle of awareness and activity cannot be fully realized if the principle of permanence and knowledge is not realized at the same time. In the further part of this paper, the didactic principles of the author Milenković & Simić (2009) will be presented in more detail.

The principle of awareness and activity

The principle of awareness and activity has the greatest importance, significance and role among the didactic principles, and it is considered that the realization of this principle creates the possibility for the realization of other principles in the teaching of physical education. The principle of awareness and activity starts from the essence of the teaching process, which consists of training, learning, repetition and practice. For such an intellectual process, it is important for students to be mentally active, so that the content presented to them is adopted with understanding while developing intellectual abilities. Conscious learning can be realized only when the student has a clear learning goal, the factors that affect him, the means and procedures by which he can be achieved. This principle is accompanied by activity, because consciousness is directly related to activity, so by active action in certain movements, awareness of that movement is formed. If students consciously acquire knowledge, then the acquired knowledge will become their permanent property and such knowledge will have an important practical application in life. The basic requirement of the principle of awareness is that the student understands why and why he should learn, to be aware of the task and goal in teaching physical education. The first prerequisite for every student to consciously learn new techniques is a motive. If the student has a motive when



adopting the elements of a certain sports technique, in that case the action makes sense, which is a characteristic of conscious acquisition of knowledge².

Conscious acquisition of different knowledge in the teaching of physical education is connected with activity, both mental and motor. Movement activity in the teaching of physical education does not occur by itself, it depends on the teacher who systematically plans the activities of students as well as variants with the application of appropriate methodical exercises. This actually obliges the teacher to constantly show students the values and meaning of physical exercise, with the aim that students show their creativity as well as to develop their independence in work². Therefore, students are expected to be consciously and actively involved in the teaching process, to think about each task on their own, to analyze and understand its essence and necessity. More precisely, to be "subjects, not objects in the teaching process" ¹⁰.

The principle of systematicity and gradualness

Physical education classes should provide each student with systematized knowledge, not a mechanical set of activities that the student should learn. Elements of sports techniques should be presented according to a system that represents the logical structure of a movement, and all movements must be integrated into one complete system. Systematicness is one of the basic factors of successful realization of educational tasks in the teaching of physical education. The principle of systematicity in the teaching of physical education implies planning, processing and proper application of methodological and organizational forms of work, adequate use of teaching methods². By realizing this principle, not only systematic knowledge is achieved in students, but also logical thinking is developed "There is no real gradualness without systematicity, nor without gradualness there can be true systematicity"²⁴. So, systematic and gradual teaching of physical education are the basic conditions for successful learning of motor skills and their automation. From the principle of gradualness and systematicity arise rules that read: from closer to further, from simple to complex, from easier to more difficult, from known to unknown².

The principle of obviousness

The principle of obviousness is reflected in the attitude that in the learning process one should always start from what is concrete, clear and obvious. It has a leading role in the teaching



of physical education because it is based on the activation of the senses and sensory experiences, and represents the first step in the process of motor education. In physical education classes, the adoption of new elements of movement and activity begins with perception, when students get a true picture of a specific element or exercise that the teacher demonstrates and explains, and students try to repeat a given element several times, to automate the element itself. Elements from the teaching content are demonstrated by the teacher, with the use of other teaching aids. In the process of perfecting the elements of sports technique, as well as in determining them, obvious teaching aids (pictures, drawings, teaching films, etc.) are used, noting that obviousness is not the ultimate goal, but a means of the teaching process².

The principle of accessibility and individuality

This principle is one of the most important in the teaching of physical education, because the inadequate application of this principle can cause negative effects, by acting on the vital functions of the organism where injuries occur. Therefore, accessibility is a match between students' abilities and the objective difficulties that arise during teaching. The right dose of availability in physical education, the teacher can determine only if he knows well the age of students, their abilities and characteristics, interest, level of prior knowledge, training and gender. When it comes to the individualization of teaching, it requires that teaching be adapted to the individual characteristics of students and in accordance with their needs and abilities. In the teaching of physical education, it is realized in homogenized groups. If a student needs special treatment then an individual approach is applied, which implies such individual work where individuals are determined by the number of repetitions, the time dimension of the exercise, or even change something from the content of the exercise².

The principle of durability

The most important task of physical education classes is for students to permanently acquire knowledge, habits and skills. The principle of permanence in the teaching of physical education is represented by measures and procedures in which the preservation of acquired habits and abilities is ensured for a longer period of time. How long motor habits will be lasting depends on the training method, but also on the character of the activity itself. Acting on the permanent acquisition of knowledge is a complex and delicate, psychological and pedagogical process. The permanent



acquisition of knowledge in the teaching of physical education depends on perception and cannot be reduced to memory, because in the teaching of physical education the habit should have a stable character and should not be lost. Only what is well learned, with the application of modern learning techniques, and what connects theory and practice in the right way, remains permanent. In order to preserve durability, in the entire process of learning, repetition and practice, it is necessary to constantly actively participate with the teacher and his methodical help in the form of proper guidance, assistance, correction, help and demonstration².

Conclusion

A review of the available literature can say that the primary goal of physical education is the development and improvement of motor skills, permanent acquisition of various knowledge, habits and skills, and the role of physical education in the educational process is very important. In order for this review to be complete in relation to the set requirements, it was necessary to emphasize the didactic-methodological principles, norms and requirements, which was done by a detailed description of the mentioned chapters in the review. The principle of awareness and activity has the greatest importance, significance and role among the didactic principles, because it starts from the essence of the teaching process which consists of training, learning, repetition and practice. The realization of the planned tasks in the teaching of physical education cannot be realized without adequate application of exercises, devices, props and other teaching aids as well as without appropriate didactic principles. We conclude, for the successful realization of didactic-methodical contents in the field of physical education teaching, it is necessary to completely equip the halls and open sports fields with props, equipment and auxiliary teaching aids.



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