

Forming the pupils' motivation using functional music and non-standard sports equipment

Natalia NASTAS^a, Valerii FILIPOV^b

"Dunarea de Jos" University of Galati

Institute of Physical Education and Sport/MSU^a

PhD, "Alecu Russo" Theoretical High School Cojusna (MOLDOVA)^b

Abstract

Physical education is a component of general education that uses physical exercise as the main means in the formation of high school health skills, motor qualities and health culture. The concept of physical and sports education imposes in the foreground the formative function of physical exercises (A.D. Novikov, I.P. Matveev; I. Boian, A. Lungu). To achieve the general objectives and the final model, the Physical Education School Curriculum provides objectives for each class. The pedagogical process of physical education is based on all the peculiarities specific to the educational process, it has an objective character, it is not carried out randomly, but, according to the requirements of the current society, which impose a harmonious physical development, an increased work capacity, the recognition of the system of values, integration into society - all this being obtained by means adapted to the age period, sex, psychomotor peculiarities specific to the individual. The opportunity to practice non-standard equipment in physical education lessons, the use of functional music, is determined by the physical development of pupils, the level of development of basic and applied motor skills. In the training process, knowledge is information about objects and phenomena of the material world. In this paper, we aim to demonstrate that the use of modern methods accelerates the acquisition of knowledge, the formation of skills, and capacities, contributing to the development of all psychic processes.

Keywords: motivation, pupils, non-standard sports equipment, functional music.

Introduction

The formation of specific skills for high school pupils based on the application of various teaching techniques and methods represents the most favourable framework for achieving performance. The modernisation of the high school education process involves several components: didactic design, techniques and tools for knowledge and assessment of pupils, educational partnerships, extracurricular activities, and active didactic methodology. To increase the quality of the instructional-educational process at the high school level, we pursue the improvement of traditional methods, but also the introduction of educational methods and procedures. The methods involve a lot of pedagogical tact on the part of the teacher because the didactic style must be adopted according to the personality of the pupils. The design of a didactic approach, different from the traditional one, allows each teacher to capitalise on their experience by using modern methods in an interdisciplinary approach.

The purpose of the work is to describe the methodology for applying active-participatory methods and techniques, functional music, and non-standard sports equipment in high school physical education lessons.

The chosen topic concerns the steps taken by the teacher to apply active-participative methods **for this purpose**, the formation of skills in the didactic process for high school pupils in the framework of physical education activities that allows learning through the cooperation of technical and tactical elements in athletics, sports games, and gymnastics to capitalize on the creative, intellectual and physical potential of each pupil.

Active-participatory methods:

A. Interactive group teaching-learning methods: Reciprocal teaching-learning method, Mosaic method, Small group learning method, Inter-team tournament method, Pair change method, Cube.

B. Knowledge methods, systematisation and verification: Cognitive map or conceptual map, Family tree, spatial inscription, Causes and consequences, Spider's web, T-chart, Two colours.

C. Methods of solving problems by stimulating creativity: Star explosion (Brainstorming), Problematisation, Group interview, Case study.

D. Group research methods: Group research topic or project, team experiment, group portfolio.

The intensification of the instructional process depends, first, on the right choice of exercises, the methods used, and the sequences established for each lesson. Hilker, Ivanov, Boghen, Boian, Lungu and other authors mentioned that at each lesson from the initial stage of the basic part, it is proposed to acquire and perfect the elements of athletics, gymnastics, sports games and the development of speed and coordination of movements, elasticity, strength-speed, endurance.

Application of non-standard sports equipment in physical education lessons

The non-standard sports equipment is applied for the development of physical qualities, the formation of motor skills or combined with simultaneous effect, they are also intended to perfect the technical elements in different compartments of the high school curriculum. One of the objectives of the contemporary lesson consists of the use of various devices and trainers, intending to improve the pupils' activity by training each one to perform exercises on devices.

When choosing and making non-standard trains (NT), it is necessary that each train is accessible and has safe operational security. NT forms a special emotional background in pupils, and the simple design arouses a special interest in pupils, who perform the exercises with increased interest during the lessons. The application of non-standard exercises contributes to the effectiveness of the lesson by increasing the level of mastery of the didactic material, it forms the ability to perform the exercises independently. During the lesson, all pupils in the class are involved simultaneously (one subgroup performs, and another makes the safety on sports devices; then pupils change places). The installation time of the trains is from 10 seconds to 1 minute.

When using the trainers, teachers are required to pay special attention to the dosage of physical demands. First, the requests must correspond to the tasks, as well as the age and individual characteristics of the pupils. That is why they must be differentiated. This contributes to achieving the objective of intensifying the lesson and achieving the effect of increasing the degree of physical training or perfecting the skills planned within the lessons.

Shapkova, Zinoviev, Gujalovskii, and Vorsin asserted that when setting the demands (NT activity), the teacher will take into account the state of health and the functional possibilities of the pupils, their degree of physical training, individual peculiarities, as well as previous demands.

The activity on each trainer can be adjusted by changing the number of exercises, the pace of the exercises, the degree of complexity, as well as the duration of the task on the trainer. At the same time, it is recommended that the teacher give special attention to pupils who have weaker physical preparation.

The circuit in the physical education lesson is a success, bringing, at the same time, a significant contribution to the continuous improvement of the physical education process and school sports.

Thus, we can say that, of all the forms (methods) of organising the physical education lesson with high school pupils, the "circuit training" method is one of the most favourable for intensifying the instructional-educational process at the stage of perfecting qualities and forming psychomotor skills, simultaneously creating activation conditions through:

- the independent work of each pupil within the lesson at a high motivational level, which is manifested as a result of conscious activities (at the skills formed level);
- the common work of all pupils at the general coordination level of activities in the execution of each task (apparatus, special equipment, which requires a high degree of concentration of attention, precision of execution-dosage, intensification of teacher-pupil relations).

The use of non-standard equipment contributes to increasing the motor density of the lesson, which requires special attention to pupils to normalise physiological effort. During the phases of the transition from effort to rest, the teacher explains the causes of mistakes, the role of exercises, thus helping the children to find, understand and avoid the mistakes made.

Voiculescu, Iakovlev, Korobkov, and Inanis emphasise that the pupil's body adapts to the growing demands; therefore, with the advancement of the pupils' level of physical training, the number of repetitions on each trainer increases. At each lesson, the heart rate must be tested, because the emotional state of the pupils working with the trainers can mislead the sense of fatigue, which, later, negatively influences the state of health and compliance with the safety technique.

The advantages of non-standard equipment compared to standard equipment consist of:

1. Achieving the goal of formative training.
2. Accelerating the process of mastering the subject matter in the program.
3. Increasing motor density.
4. Developing creativity.
5. Improving the health status of the pupil.
6. Forming understanding skills during instruction.
7. Creating self-discipline and the wide possibilities of self-instruction of pupils regarding the formation of motor skills.

Gurevici, Grigorovici, Gaverdovskii, Lipetkii, and Filipov mention that, when using non-standard equipment, it is recommended to practice variations of circuits with intervals. In the process of working on non-standard equipment, one of the means of increasing the intensity of the effort consists of reducing the rest time below the necessary level or even

suppressing the breaks. In circuit activity with secondary school pupils, it is recommended to gradually increase the demand, as the adaptation to the effort is observed, but not at the expense of breaks. The duration of the rest intervals between working on equipment constitutes a differentiated development means of one of the motor qualities.

The use of functional music in physical education lessons

Music increases the level of the pupil's emotional state, creates a good mood at the lesson, focuses attention, develops perception, memory, builds perseverance, and assiduity. At different stages of the lesson, music fulfills various functions: at the beginning of the lesson, it accelerates inclusion in the activity; during the actual course it becomes a rhythmic benchmark for the acquisition of skills and abilities; at the end of the lesson, it contributes to a quick functional recovery of the body.

The specific action of music on the pupil is ensured by a rigorous selection of a musical program, which is revised and renewed along the way. With the help of music, the teacher recommends that pupils choose exercises appropriate to the music. The dynamics of the effort can be directed with great precision as a result of increasing or decreasing the duration of the musical background.

Gujalovskii and Susenok believe that the use of functional music in lessons is done gradually. They recommend in the preparatory part of the lesson for learning to walk accompanied by drumbeats.

The strength of the drumbeat should be lessened from lesson to lesson, so that pupils learn to listen while going along with the marching music.

Then comes the learning of general physical development exercises. The rhythmic character of the music must be clear. For example: dance rhythm "Barânea", "Buliba", etc. The musical passages are inscribed in a certain sequence to accompany their walking, running, and alternating.

Performing various motor activities under musical accompaniment facilitates the formation of self-control in pupils. Functional music is used more in the basic part of the lesson for learning a certain tempo and rhythm of running, speed, strength, and jumping exercises. Along with this, through the musical accompaniment, the dynamics of physical effort can be directed and controlled. The practice of activities proves to us that at the stage of learning a complex of new exercises, musical accompaniment is necessary and effective. Learning the exercises without music makes pupils focus not on the tempo, but on following the structure of the movement. General physical development exercises can be performed to any rhythmic music. The main condition consists of matching the music to the tempo and rhythm, contributing to the increase of the emotional state, and the aesthetic education of the pupils.

Functional music has a high psychophysiological potential, acting beneficially on humans in the process of motor activities. In general, music calms and invigorates, dynamising pupils during lessons, accompanying them to achieve performances, and victories in various competitions. (Shaposhnikova)

The lessons conducted under musical accompaniment contribute to the formation in pupils of the feeling of joy and satisfaction in the practice of physical exercises, creating aesthetic feelings and experiences. Physical education lessons, accompanied by functional music, contribute to increasing interest, toning the nervous system and eliminating monotony. It is rational to use music in the lessons during those periods when the execution of simple exercises takes place or at the stage of motor improvement that does not require

special attention from pupils on the coordinating structure of the physical exercises. (Gaverdovskii, Lipetskii, Kodjaspirov).

Research has shown that the most appropriate musical passages are those with a duration of 10 to 25 minutes in the lesson. In general, the musical accompaniment should not exceed 30-40% of the lesson time.

Based on the research, the methodology of using the musical stimulus at each part of the lesson (preparatory, basic, closing) was determined. The music used in the lessons contains the following functional components:

1. Welcome music.
2. Preparatory music.
3. Leading music.
4. Calming music.

When choosing songs for physical education lessons, the teacher must take into account the age characteristics of pupils, the level of perception of musical creation, the content of the musical material studied in music education lessons.

The healing role of music has been known since the Middle Ages. In Japan, the sound of the drum was used to purify the air in churches after the divine service was over.

Avicenna and Pythagoras used music for healing and educational purposes. From a scientific point of view, it has been proven that military marches, national songs, and religious music have a very good effect on a person's mood.

L. van Beethoven was the first composer who mentioned the healing role of music. He mentioned that the world consists of vibrating sounds and people are strings. It should be noted that not all music has a positive effect on the human psyche and health. For example, after listening to music "rock group", "rock metal", people become more excited and aggressive. This has been demonstrated experimentally by scientists, doctors (as a consequence, mental illnesses appear).

In connection with the mentioned, physical education teachers must possess knowledge about the positive and negative influences of music. Scientists have determined that the music of Mozart calms, Beethoven stimulates activity, and Bach relaxes. Recently, it has been shown that music acts not only on the mental and emotional state, but also on the functional state. The sounds of the notes (do, re, mi, fa, sol, la, si) beneficially change the colour and shape of the blood cell. This was experienced by doctors and discovered by the Frenchman F. Mamana, a famous musician.

Functional music contributes to the rational consolidation of movement technique. The musical tempo of the "leader" song is chosen depending on the execution tempo of the training exercises by pupils, depending on the tasks set before them and the specifics of the compartment in the program. The melodies, which form the musical background, are listened to with pleasure and easily perceived almost involuntarily. The pupil listens to the music with pleasure, without particularly concentrating.

It was noticed that some pupils, in the course of the lessons given with listening to the functional music, involuntarily start to reproduce in the beat of the music a motive or to sing, in other words, they were not deprived of the exercises, but, on the contrary, they worked with increased effect.

The specialised literature offers sporadic examples of application in physical education lessons of non-standard equipment in correlation with functional music. Based on the experiment carried out in the academic year 1998-1999 (Cojusna, Filipov Valerii, PhD thesis) (Fig.1), it was demonstrated that the use of functional music in circular physical

education classes and training application has a positive effect on pupils, obtaining the most beautiful results.

Tempoul muzical utilizat în forme de exerciții		
Tempoul muzical	Numărul de accente în 1 minut	Diverse exerciții
Lent	60-80	Exerciții de respirație, de relaxare, exerciții de echilibrare
Moderat	80-100	Exerciții de dezvoltare a plasticității; pentru mușchii gâtului; exerciții din yoga-gimnastică; exerciții la diferite trenajore
Mediu	100-120	Exerciții: stil tehnic – sportiv din compartimentele de gimnastică, atletism, baschet, volei (balansări, înclinări, fandări, de dezvoltare a forței), diverse feluri de mers, pași de dans, la trenajore
Rapid	120-140	Alergări, sărituri, balansări
Foarte rapid	140 și mai mult	Alergări, sărituri, balansări

Figure 1. The musical tempo used in exercises according to Filipov V.

In conclusion, we note the insufficient theoretical approach and practice in order to use functional music in physical education lessons, as one of the objectives of intensifying the instructional-educational process as a whole, of forming a harmonious personality of the pupil, the graduate.

For a physical education lesson accompanied by listening to functional music, it is necessary to choose a musical composition that, according to size, tempo and character, coincides with the movements performed both on the trainers and without them. The means of music reproduction can serve both the musical instrument and the cassette player.

The functional music, which accompanies the exercises performed on non-standard equipment by the circuit method, is joined in a calm and pleasant tempo, forming *the emotional background of the physical education lesson.*

References:

Curriculum național de educație fizică, 2020, Clasele X-XII, Chisinau.

Filipov V. 2006. *Intensificarea procesului didactic în cadrul lecțiilor de educație fizică în școală*. Chișinău: Valinex, 2006, p.46-56.

Filipov V. 2004. *Intensificarea procesului de educație fizică din gimnaziu prin aplicarea utilajului sportive nestandard, a muzicii functionale si antrenamentului in circuit*. 13.00.04- Teza de doctor, Chisinau,

-
- Ionath U. 1961. *Circuit Training*. Berlin: Verlag Barteles und Wernitz, 1961, p.71.
- Matveev L., Novicov A. 1980. *Teoria si metodica educatiei fizice*.-Bucuresti: Sport-Turism , 1980, 494 p.
- Nicu A. 1973. *Aspecte teoretice si practice ale lucrului in circuit in lectia de educatie fizica.*, 1973, nr.5p.48.