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THE INNOVATIVE TRENDS IN THE METHODOLOGY OF PHYSICAL EDUCATION OF CHILDREN IN THE AGE OF 5-6

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The article deals with the substantiation of the integrated lessons with the usage of multifunctional equipment in physical education of senior preschool children. It is established that the improvement of efficiency of motor skills development and the emotional coloring of physical training lessons for senior preschool children should be achieved due to the sport exercises done alongside with musical accompaniment, various equipment. All this has a positive impact on improving the overall health condition and removal of child's functional adaptation systems tension.

Keywords: senior preschool children, integrated lesson, sports-oriented physical education, musical accompaniment, polypropylene equipment.

Introduction. The problem of movements and music integration and activation of motor activity of children aged 5-7 years old was studied by such scientists as Babadzhan, T. [1], Bekyna, S. [4], Kolodnyckyj, H. [10]. Denysenko, N. [6] proved that the use of music at physical training lessons increases motor density to 20-25% and promotes intensive physical development of children and their motor efficiency. Vilchkovskyj, E. [5] argues that dancing exercises and dancing itself should be regularly included in all activities of physical training as they positively influence the improvement of the good posture, amble, distinctive and graceful movements. Dubohaj, O. and Makovecka, N. [9] consider it appropriate to use the rhythmic gymnastics and dancing therapy in the educational process in preschool institution. The researchers Alyamovska, V. and Petrova, S. examined the problem of the relationship of movement and music through the implementation of rhythmoplastic exercises in physical education.

Many researchers [2; 7; 13; 14] studied the problem of appropriateness of using training technology aimed at implementing the tasks of school physical education, as well as the methodical peculiarities of their use in educational institutions. Special importance is given to the concept developed by Balsevych, V. [2], which presupposes the conversion of the selected items for sports training to improve the content and form of organization of physical education in schools and pre-school educational institutions. Volkov, L. [7] developed a program of physical conditioning with elements of game to optimize the physical conditioning of children aged 5-7 years old. Sharmanova, S. [16] suggested a "circular" training as the most effective technique in physical education of preschool children.

Mobile games with the elements of sport, as a kind of activity, are characterized by changeable conditions of certain actions therefore most of these

games are connected with the manifestation of motor abilities such as speed-strength, coordination, endurance, strength and flexibility. During the games with elements of sport the sense of muscular efforts, space, time is improved as well as the function of various analyzers [8; 13; 15].

According to the regulation of the Cabinet of Ministers of Ukraine "On Approval of the National Target Social Programme for the development of preschool education for the period until 2017", one of the main objectives is to strengthen the teaching-methodological and material and technical basis in preschool institutions [11]. The scientific papers [12] are devoted to the significance of the material-sporting environment in physical education. Special importance is given to provision of sports areas with various, especially non-typical, equipment. In addition, its quality should correspond to the motor and aesthetic interests of children, sanitary and hygienic, and pedagogical norms [5]. According to Osokina, T., Tymofyeyeva, E. and Runova, M., the environment for child's development should have not only developing nature, but it also has to be diverse, dynamic, transforming and multifunctional.

All this gives grounds to assert that the combination of sports science achievements and appropriate usage of music accompaniment in the course of physical exercises during the whole day, together with the mandatory application of universal, functional equipment is the most effective solution to the urgent problems in physical education of senior preschool children.

The **goal** of the article is to determine the effectiveness of implementing system of integrated exercises in physical education of children in the age of 5-6 years old in preschool educational institutions.

Main body and discussion. To ensure the health-improving trend of physical education of senior preschool children the integrated lessons (sports training elements with musical accompaniment) were substantiated, and provided with the equipment, which we designed and manufactured (registered with the State Department of intellectual property: copyright registration

certificate number 62267 from 10.26.2015). The "System of integrated exercises" may be different depending on physical development, physical condition, physical conditioning, functional characteristics of children and problems to be solved in the process of health-oriented physical education.

The examples of original integrated lessons with the usage of polypropylene equipment:

1. Sports-oriented lesson "*Stadium*" (outdoors activity) as an example of "circular" training with games and the integration of movements and music for senior preschool children. Objective: to raise interest in sports, to form children's motor activity; to develop physical qualities (speed, agility, strength, endurance); to bring up in competition such qualities as responsibility, tactfulness, kindness to a friend, justice and discipline.

Introduction

Walking with the elements of corrective gymnastics. Children walk on their toes and heels by the signal of raising colorful flags. Running. Forming up into groups of three for exercise with the step platforms. Music: "Marsh" [The March] by Tilicheyeva, O.

Main part

The equipment: listed in Figure 1. The exercises for general development with the step platform. Music: "Prohulyanka" [The Walk], "Velykyj ruh" [The great movement] by Bettolf, E.; "Veseli tancyurysty" [The Joyful Dancers] Ukrainian folk melody. The equipment: step platform for each child.

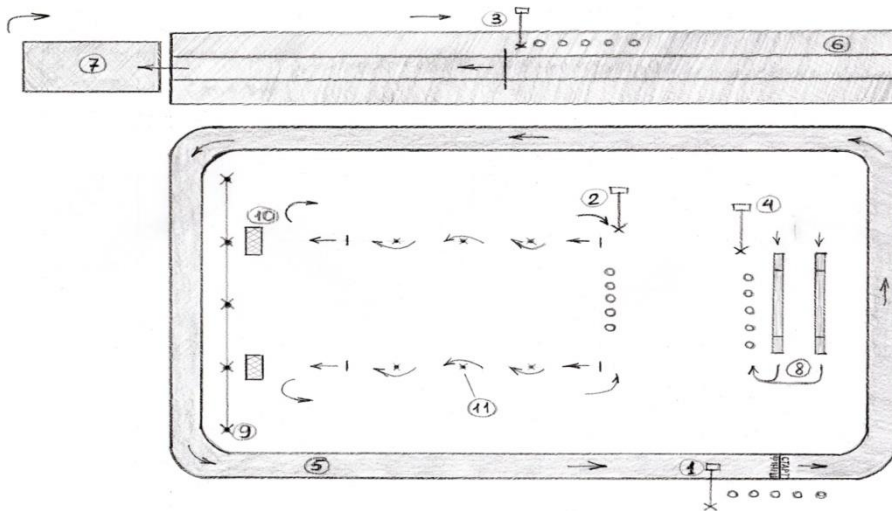


Fig. 1. Example of arrangement of stations on the playground

Note: 1-4 – the stands with nameplates of the station (1 - station "Athletics" (middle-distance running), 2 - station "Floorball", 3 - station "Athletics" (running long jump), 4 - station "Gymnastics"), 5 - circular running track, 6 - running track (20 m), 7 - sector for jumping (sand pit), 8 – combined balance beams, 9 – large stands with a protective net, 10 – large gates (for playing floorball), 11 – small stands.

The main movements (the method of "circular" training)

Music: "Hra" [Game] by Tchaikovsky, P. (from the ballet "Lebedyne ozero" [Swan Lake]), "Chunha-Chanha" by Shayinsky, V., "Prohulyanka" [The Walk] by Bettolf, E, "Vesely myach" [The Joyful Ball] by Petrov, A. and "Dytyacha p'yesa" [The Child's Play] by Bartok, B.

Slow-moving game "The most skillful parachute". Music: "Veselyj tanok" [Joyful Dance] by Lomova, T. The equipment: parachute, a large ball (diameter 50-60 cm). Playing the game. Children form groups on request to participate in exercises with a ball toss and holding the ball with the help of "parachute". The winner is the team that coped with the task better. Repeat 4-5 times.

Final part

The final walk around the playground. Summing up.

2. Sports-oriented lesson "*Olympians*" (training in the gym) as an example of "circular" training with games and the integration of movements and music for senior preschool children. Objective: to raise interest in physical training and sports, to develop physical qualities such as speed, strength, endurance and agility; to bring up such qualities as friendliness and tactfulness to success and failure of friends.

Introduction

Music: "Marsh" [March] by Dunayevsky, I. Alignment (two columns). Walking in columns toward each other; the formation of pairs. Walking, rolling from heel to toe. Squatting walking, side gallop, running (throwing back one's shins), simple running, running in all directions. The exercises for general development with fitballs (according to L. Honchayeva). Music: "Pomirno" [Moderate] by Filipenko, A., "Pomirno" [Moderate] by Sydelnykov, L. The equipment: fitball (according to the number of children).

Main part

The equipment: listed in Figure 2 and 3.

The main movements (the method of "circular" training)

Music: "Polka" by Tchaikovsky, P., "Tanec" [Dance] by Tilicheyeva, E., "Prohulyanka" [The Walk] by Bettolf, E., "Halop" [Gallop] by Kabalevsky, D. and "Polka" by Krashev, M. Relay race - entertainment "Zmijka" [Snake]. Music accompaniment: J. Haydn music. The equipment: 2 tunnels 4 m long. The participants of the relay race arrange themselves in two columns. Two teams "snakes" get through the "hole" (tunnel) from one side to another. The winner is the team that coped with the task more quickly. Repeat 4-5 times.

Final part

Walking like "snakes" in the hall (1 minute). Summing up.

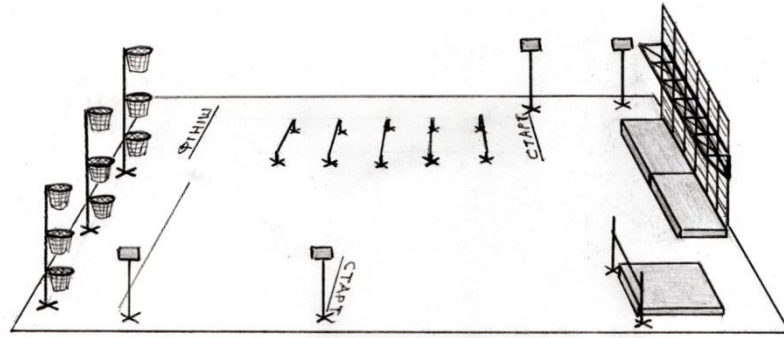


Fig. 2. Common arrangement of stations in the gym

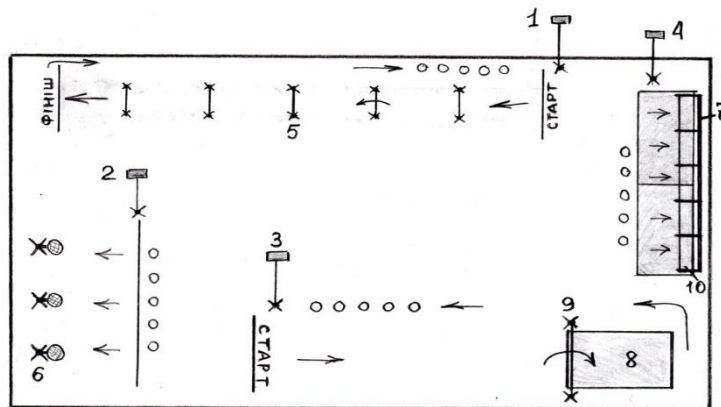


Fig. 3. An outline of stations in the gym

Note: 1-4 – the stands with nameplates of the station (1 - station "Athletics" (10 m obstacle race), 2 - station "Basketball", 3 - station "Athletics" (running high jump), 4 - station "Gymnastics"), 5 – small arcs, 6 – stands for basketball, 7 – wall bars, 8 – floor gymnastic mats, 9 – stands with rope for high jumps 10 – horizontal bars, ○○○○○ - children location at the stations.

The load in the process of "circular" training was regulated in the following ways [7]: 1) the duration and number of repetitions of the exercises at "stations", the number of "stations", the number of "circles" was changing; 2) the pace of exercises varied; 3) the intervals of rest were changing; 4) additional "stations" with easier or, conversely, more difficult exercises were introduced; 5) other ways and conditions of exercises were offered. Monitoring the level of intensity of the load of senior preschool children in the classroom was carried out using the measurements such as heart rate, which is characterized by the average value and ranged from 140 to 160 beats per minute: small - from 140 to 145 bpm; average - from 145 to 150 bpm; large - from 150 to 160 bpm. The load

is determined by motor density of the lessons that depends on the exercises during the lesson and changes in the range of 65 to 90%: a small load - 70%; the average load - 80%; a large load - 90%.

The proposed equipment used at the integrated lessons is functional, various, easy to connect and versatile. Easily transformed with a minimum of effort, it enabled the children simultaneously to solve not only the problems of physical education, but also of the development of cognitive activity.

The sets (building sets) of polypropylene pipes can be multi-purpose as well as made for a specific purpose. For example, set no.1 "Athletics" is for the lessons on climbing, overstepping and jumping for different age groups and obstacles race (due to the pipes of different length and diameter in the set); set no.2 "Sport Games" is for mobile games (stands for the screen, gates of different sizes for ball games, etc.).

Set no.1 "Athletics"

1. Small arc for overstepping (Fig. 4a). The height is 10-15 mm, the length is 50 mm. Pipe diameter is 20 mm. It is also used as wicket for dribbling (floorball) and washers (hockey).

2. Big arc for overstepping (Fig. 4b). The height is 20-25 mm, the length is 100 mm. Pipe diameter is 20 mm. It is also used as wicket for dribbling (football).

3. Arc for creeping under (Fig. 4c). The height is 40-75 mm, the length is 60-80 mm. Pipe diameter is 20 mm. It is also used as wicket for training how to kick the ball (football).

4. Gymnastic stick (Fig. 5). The length is 60-110 mm. Pipe diameter is 20 mm. It is also used for exercises with weights (pipe is filled with sand; for children of junior preschool age polypropylene balls are used instead of sand)

5. Universal racks (Fig. 6). The height is 100-150 mm. Pipe diameter is 20-32 mm. It is used for running round it, marking the stations etc. Different

signs and toys can be mounted at the top of the rack. It is also used as a rack for the high jump.

6. Dumbbells (Fig. 7). The length is 10-15 mm. Pipe diameter is 20-32 mm. The pipe can filled a variety of fillings, adjusting it weight from 100 to 350 grams by plugs that can be removed.

7. Set to play skittles (Fig. 8). Bat length is 60-80. Pipe diameter is 20-32 mm. Dumbbells can be used to build skittle construction.

1. Gates (Fig. 9). The height is 40-90 mm, the length is 50-120 mm. Pipe diameter is 20-32 mm. It is used for soccer, hockey, floorball, etc.

2. Basket for balls (Fig. 10). The height is 40-50 mm, the length is 50-60 mm, the width is 50-60 mm. Pipe diameter is 20 mm. It is used to store balls, for relay races, training how to throw the ball (basketball) etc.

3. Stands for screen and mini volleyball (Fig. 11). The height is 140-150 mm, the length is 210-225 mm. Pipe diameter is 32-40 mm.

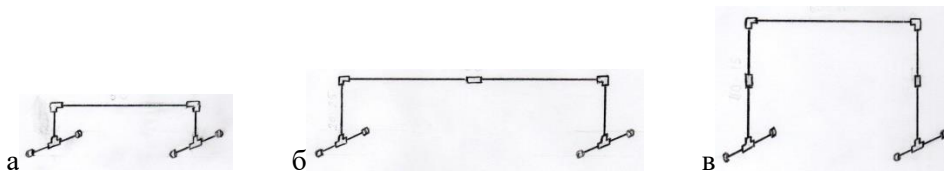


Fig. 4. (a, b, c). Arcs for overstepping and creeping under.



Fig. 5. Gymnastic stick



Fig. 6. Small universal rack



Fig. 7. Dumbbells

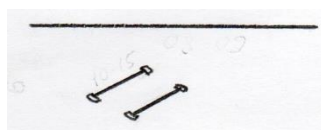


Fig. 8. Set to play skittles

Set no.2 “Sport Games”

4. Big universal rack for basketball, korfball, targets etc. (Fig. 12). The height is 80-225 mm. Pipe diameter is 32-40 mm. The equipment is mounted at a height of 70-80, 150-160 and 210-225 mm. The rack can put on flat surfaces as well as on the ground using special tools. You can simultaneously fix it to three types of equipment (three baskets, targets or basket and target etc.).

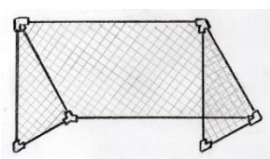


Fig. 9. Gates

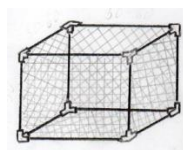


Fig. 10. Basket for balls

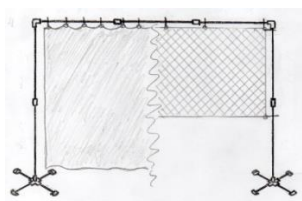


Fig. 11. Stands for mini volleyball

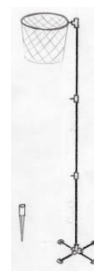


Fig. 12. Big universal rack

All this gives grounds to make the following **conclusions**:

1) The combination of sports science achievements and appropriate usage of music accompaniment in the course of physical exercises during the whole day is the most effective solution to the urgent problems in physical education of senior preschool children.

2) The usage of equipment made of polypropylene pipes in sport activities makes it possible to significantly improve the efficiency of physical education of preschool children.

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