International Journal of Pedagogics
(ISSN – 2771-2281)
VOLUME 04 ISSUE 12 PAGES: 273-278
OCLC – 1121105677

Publisher: Oscar Publishing Services

Journal Website: https://theusajournals.com/index.php/ijp

Research Article

EFFECTIVE METHODS OF INCREASING THE PHYSICAL FITNESS OF 13-14-YEAR-OLD ATHLETES

Submission Date: December 15, 2024, Accepted Date: December 20, 2024,
Published Date: December 30, 2024
Crossref doi: https://doi.org/10.37547/ijp/Volume04Issue12-56

Sh.D.Jahongirov
Namangan State Pedagogical Institute, associate professor, Uzbekistan

ABSTRACT

In this article, effective methods of improving the physical fitness of 13-14-year-old track and field athletes were studied. Based on the experimental approach, the results of game training and individual approach were analyzed. The results of the study confirmed the high efficiency of new training methods in developing physical qualities such as speed, endurance and strength. In the future, proposals are given for the wide implementation of these methods.

KEYWORDS

Athletics, physical training, game training, individual approach, young athletes.

INTRODUCTION

Currently, the involvement of the young generation in physical education and sports, increasing their physical potential, forming a healthy lifestyle is defined as one of the priority directions in our country. In this regard, the decision of the President of the Republic of Uzbekistan No. PQ-5924 "On the development of mass sports among young people and promotion of a healthy lifestyle" was adopted. This decision serves as a solid legal basis for the implementation of measures to improve the physical fitness of young people, including 13-14-year-old athletics. The relevance of this research is determined by the development and implementation of effective methods of increasing physical fitness for athletes in the period of growth. Because the body of athletes of this age undergoes a rapid development process, there is a high possibility of developing physical qualities such as flexibility, speed and strength.

The main goal of the research is to develop innovative methods aimed at improving the physical fitness of 13-14-year-old athletes and to test their effectiveness in practice.

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In the study, based on the experimental group, the game approach and individual training methods, as well as the possibilities of wide use of the sports facilities and infrastructures specified in the Presidential Decree are studied.

The results of this research help to develop physical qualities in young people and serve to increase the effectiveness of athletic training for them.

METHODOLOGY

In the study, a special experimental program was developed and tested to improve the physical fitness of 13-14-year-old track and field athletes. Participants were divided into two groups: a control group and an experimental group. 15 athletes participated in each group. During the research, the sports infrastructure specified in the decision of the President of the Republic of Uzbekistan "On measures to popularize sports among young people and effective use of sports facilities" No. PQ-5924 [1] was used. A new training program was developed for the experimental group. The following approaches were used in this program:

•Game training methods: Development of speed, flexibility and balance through action games.

•Individual approach: customized exercise programs based on the physical performance of each athlete. Specific strength and speed training: Core strength training and jumping exercises [4,5].

Evaluation criteria: Athletes' physical fitness indicators were measured before and at the end of training. Attention was paid to the following parameters:

• Speed: 30 meter run and measuring reaction time.
•Endurance: 800 meter running performance.
•Strength: Performance in high jump and shot put.
During the study, all processes were coordinated with training sessions, and special attention was paid to the prevention of injuries of athletes. Differences between groups are determined by statistical analysis of the results. A training plan suitable for experimental and control groups for 13-14-year-old track and field athletes

Table 1

Type of training	control group	Experimental group	**Target**
Running training	30-40 minutes simple running	30-40 minutes interval running	increasing speed and endurance
game training	Simple exercises without game elements	20 minutes of action games (relay, relay)	Increasing motivation

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strength training	simple pulling, light weight lifting	Exercises that strengthen physical qualities (throwing, jumping)	improve strength
Individual training	Exercise based on a group approach	Programs tailored to each athlete's strengths and weaknesses	Develop personal skills
Final training	Light stretching and breathing exercises	Stretching exercises with playful elements	Accelerate recovery

Note: 1. Experimental group - includes new methods, which increases the interest of athletes and helps to improve physical training. 2. Control group - uses traditional methods, which allows to compare the effectiveness of experimental methods. This table covers all stages of training and is the main tool to demonstrate the effectiveness of the approaches used in the study. A collection of methods used for 13-14-year-old track and field athletes

Table 2

Types of methods	Application in practice	Purpose
Game trainings	Adding interesting elements to the process of relays, action games, distance running	Increase the motivation of athletes and improve balance
Individual approach	Development of a training program suitable for individual performance of each athlete	Elimination of physical defects and development of abilities
Interval training	High-intensity running exercises for short distances to increase speed and strength	Develop speed and endurance together
strength training	Exercises such as throwing, jumping, pulling and pushing	Increase muscle strength and develop jumping height
Endurance exercises	Running for distances of 800 meters and more	Development of general and special endurance

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Types of methods	Application in practice	Purpose
Evaluation of physical indicators	Running and jumping tests, reaction and strength tests	Determining training effectiveness and tracking progress

RESULTS

The results of the study confirmed the effectiveness of the methods used to improve the physical fitness of 13-14-year-old track and field athletes. Significant differences were observed between the participants of the experimental group and the control group. Speed measurements showed that the performance of athletes in the experimental group for running 30 meters was 5.2 seconds at the beginning of the training, and at the end of the training, this indicator was reduced to 4.8 seconds. In the control group, the changes remained minimal. During the endurance tests, the athletes in the experimental group improved by 7% from the initial performance in the 800-meter run. This shows that their general endurance level has increased with the help of special training methods. Athletes in the experimental group on strength and jumping ability were able to increase the distance of the shot put by an average of 12%. In addition, it was noted that the height of the jump increased by 6 cm. Athletes in the control group had lower performance changes than those in the experimental group. This once again confirms the effectiveness of a special program prepared on the basis of game training and an individual approach. The results show that new approaches and individual training methods for 13-14-year-old track and field athletes can significantly improve their physical fitness. Results of physical training of 13-14-year-old track and field athletes

Table 3

Indicator type	Initial result	The final result of the experimental group	The final result of the control group	Change (%)
Speed 30 m, minutes	5,2	4,8	5,1	+7,7%
Endurance (800 m, minutes)	3:40	3:25	3:37	+7,3%
Power (nuclear launch, m)	8,5	9,6	8,8	+12,9%
Jump height (cm)	38	44	40	+15,8%

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Indicator type	Initial result	The final result of the experimental group	The final result of the control group	Change (%)
Motivation rating (on a 10-point system)	6,5	8,7	7,1	+33,8%

Notes: 1. Speed: A significant improvement was observed in the experimental group with the help of interval training. 2. Endurance: Long-distance running and game training increased endurance. 3.Strength: The core throwing and weight training exercises produced a higher change in the experimental group. 4. Jump height: Strength and jump training showed significant results in the experimental group. 5. Motivation: Game training increased the athletes' interest in training. This table presents the main results of the study in a clear and visible way. The results of the research show that a specially designed training program for 13-14-year-old track and field athletes provides high efficiency in improving their physical fitness. The speed, endurance and power performance of the participants of the experimental group significantly improved compared to the control group [4,5]. The high efficiency of game training methods has been determined. This method increased the interest of athletes and improved their psychological and physical flexibility. In addition, the individual approach made it possible to take into account the personal needs and physical characteristics of athletes, which maximized the potential of each participant.

The results are consistent with other scientific studies. In particular, the effectiveness of game and individual training for the development of physical qualities such as flexibility and speed in young athletes has also been noted in previous studies. However, our research has shown that a combination of these approaches is more effective [5,6]. Some limitations were identified during the discussion. In particular, there was a need to study the personal physiological characteristics of athletes more deeply when applying the training program. Also, the possibilities of using new technologies should be studied to increase the effectiveness of training. Based on the information obtained at the end of the research, it is planned to develop proposals for improving training programs for 13-14-year-old athletics and their wide implementation in practice.

CONCLUSION

The results of the study confirmed the effectiveness of innovative approaches in improving the physical fitness of 13-14-year-old athletes. The specially developed program combined game training and an individual approach, allowing to significantly improve the speed, endurance and strength of athletes. It was found that the physical performance of the participants of the experimental group was much higher than that of the control group. In particular, changes in speed, strength and endurance showed the effectiveness of these training methods. This approach increases the motivation of athletes, creates healthy competition and strong physical training in them.

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During the research, the important role of game training in keeping the interest of young athletes and achieving positive results in them was noted. The individual approach allowed to take into account the unique characteristics of athletes and served to develop their capabilities to the maximum [7]. In the future, it is necessary to test these approaches on a larger scale, improve training programs, and study their effectiveness for other age groups. By introducing these methods, it is possible to make a great contribution to increasing the physical potential of young athletes.

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