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USE OF CHOREOGRAPHY ELEMENTS IN THE TRAINING PROCESS OF NOVICE ATHLETES FOR THE SUCCESSFUL DEVELOPMENT OF RHYTHMIC GYMNASTICS PROGRAMS

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Purpose: apply choreographic training in the training process of novice athletes and determine its influence on the performance of basic rhythmic gymnastics exercises.

Material and methods: the pedagogical experiment was carried out on the basis of the Complex Children's Sports School No. 1, Kyivskyi District (Kharkov) among novice athletes 5-6 years old. The study involved 24 gymnasts: the control group (n=12) conducted the training process according to the school program, experimental (n=12) with the additional use of choreographic training. To evaluate the artistic and technical components, 2 choreographers with judicial experience and 4 trainers of the national category were involved. Because the level of preparedness of young athletes was at the initial stage, a 5-point assessment scale was applied. The first assessment of the basic exercises in rhythmic gymnastics among young athletes was carried out in the study groups at the beginning of the school year, the second - at the end of the half-year.

Results: in the process of using choreographic exercises for mastering programs in rhythmic gymnastics for novice athletes 5-6 years old from the experimental group, reliably better assessment results were obtained in relation to the control group in performing the following components: "expressiveness of body movement" ($t=4,97$; $p<0,001$), "balance" ($t=4,48$; $p<0,001$), "character" ($t=3,71$;

p<0,01), "rhythm" (t=4,18; p<0,01), "jumping" (t=3,22; p<0,01) and "turns" (t=3,77; p<0,01).

Conclusions: as a result of the research, it was found that the additional use of choreography in the training process of novice athletes of 5-6 years old effectively affects the performance of basic exercises in rhythmic gymnastics, which indicates the successful development of programs in this sport. It is during these classes that posture is formed, the musculoskeletal system is strengthened and the culture of movements of the gymnasts is formed.

Keywords: rhythmic gymnastics, choreography, novice athletes, artistic preparedness.

Introduction

Rhythmic gymnastics is a very feminine sport, a kind of combination of athleticism with artistry and music. It should be noted that the important thing is the choice of a number of components: artistic ones - character, rhythm, dynamic changes, expressiveness of body movement and technical ones- jumps, turns, balances and pre-acrobatic elements [8]. However, there is an insufficient level of assimilation of these components in the training process of novice athletes who are engaged in rhythmic gymnastics. Indeed, in addition to the technical execution of the program and the level of complexity, the judges also evaluate artistry and choreography.

Nowadays choreography has become an integral part of the training of high-level gymnasts, and the earlier these classes are involved, the better the result can be achieved. [5]. According to A.V. Martynenko, familiarizing preschool children with classical dance contributes to the correct posture of the torso, arms and legs, strengthening the muscles of the body, developing musical-movement coordination, awareness of the aesthetics and beauty of choreographic movements [4]. Kyzim P.N. in his scientific work states that the usage of modern directions of choreography in the training of novice athletes takes place, but the usage of the folk stage dance movements is mostly not traceable [2].

Thus, the analysis of special scientific and methodological literature raises the topic of the importance of choreography in the training process of novice athletes who are engaged in rhythmic gymnastics.

The research was carried out in accordance with the initiative theme of the scientific research of the Department of Gymnastics, Dance Sports and Choreography of KSAPC: "Theoretical and methodological foundations of the backbone components of physical culture (sports, fitness and recreation) for 2020-2025", state registration number 0120U01215.

Purpose of the study: to apply choreographic training in the training process of novice athletes and determine its influence on the performance of basic rhythmic gymnastics exercises.

Material and Methods of research

Research methods: the pedagogical experiment was carried out on the basis of the Complex Children's Sports School No. 1, Kyivskyi District (Kharkiv) among novice 5-6 year old athletes. 24 gymnasts were involved in the studying: the control group (n=12) conducted the training process according to the school program, the experimental one (n=12) did with the additional usage of choreographic training. 2 choreographers with judicial experience and 4 trainers of the national category were involved to evaluate the artistic and technical components. Due to the fact that the level of preparation of young athletes was at the initial stage, a 5-point assessment scale was applied. The first assessment of the basic exercises in rhythmic gymnastics among young athletes was carried out in the studied groups at the beginning of the school year, the second - at the end of the 6-month period.

Results of the research

The research was conducted during one academic semester. The experimental group trained three times a week for two hours: one hour was devoted to the general training of gymnasts according to the program of the Children's Youth Sports School (CYSS) [7], and the second hour consisted of choreography at the bar and in the middle of the hall. The choreography classes included the standard choreographic training for novice athletes. The control group also trained three times a week for two

hours, but all the time was devoted to general training in rhythmic gymnastics. The results of the initial assessment are shown in Tables 1 and 2.

Table 1

Results of assessment of the experimental group at the beginning of the pedagogical experiment (points)

Gymnasts	Artistic components of assessment, points				Technical components of assessment, points			
	Character	Rhythm	Dynamic changes	Expressiveness of body movement	Jumping	Turns	Balance	Pre-acrobatic elements
1	4	4	4	4	3	3	3	4
2	3	4	3	3	4	3	4	4
3	4	5	4	4	4	3	4	3
4	4	3	3	3	2	3	3	3
5	3	4	3	3	4	3	4	3
6	4	4	5	3	3	4	4	4
7	3	4	4	3	3	3	4	3
8	4	3	2	3	4	3	4	3
9	4	3	4	4	3	3	3	3
10	3	4	3	3	3	4	4	5
11	4	4	4	3	4	3	4	4
12	3	4	3	4	4	5	4	3
$\bar{X}$	3,58	3,83	3,50	3,33	3,42	3,33	3,75	3,50
m	0,16	0,17	0,24	0,15	0,20	0,20	0,14	0,20

Table 2

Results of assessment of the control group at the beginning of the pedagogical experiment (points)

Gymnasts	Artistic components of assessment, points				Technical components of assessment, points			
	Character	Rhythm	Dynamic changes	Expressiveness of body movement	Jumping	Turns	Balance	Pre-acrobatic elements
1	3	4	3	4	4	4	4	4
2	5	3	4	4	4	3	4	3
3	3	3	4	3	4	4	4	4
4	4	3	3	4	4	3	3	4
5	4	3	3	3	4	3	4	3
6	3	4	4	3	3	2	3	3
7	3	3	2	3	4	4	3	4
8	4	3	3	3	3	3	3	4
9	3	3	4	4	4	5	4	3
10	3	4	3	4	3	3	4	4
11	4	3	4	3	4	4	4	5
12	3	3	3	2	4	3	3	3
$\bar{X}$	3,5	3,25	3,33	3,33	3,75	3,42	3,58	3,67
m	0,20	0,14	0,20	0,20	0,14	0,24	0,16	0,20

At the beginning of the research it was assumed that an experimental method should be used to improve the performance of novice 5-6 year old athletes competing in the CYSS rhythmic gymnastics program .

The indicators of both artistic and technical qualities of novice athletes were increased in the experimental group during the implementation of choreography exercises, which significantly affect the performance of basic rhythmic gymnastics exercises. Statistical test results at the end of the pedagogical experiment are shown in tables 3, 4.

Table 3

Statistical readiness indicators of the pedagogical experiment experimental group gymnasts (n = 12) (points)

Components	The constituents of assessment components	Experimental group (n=12)		t_e	p
		initially	finally		
		$\bar{X} \pm m$, *points*			
Artistic	Character	3,58±0,16	4,42±0,16	3,71	<0,01
	Rhythm	3,83±0,17	4,75±0,14	4,18	<0,01
	Dynamic changes	3,50±0,24	4,33±0,23	2,50	<0,05
	Expressiveness of body movement	3,33±0,15	4,42±0,16	4,97	<0,001
Technical	Jumping	3,42±0,20	4,00±0,20	3,22	<0,01
	Turns	3,33±0,20	4,25±0,14	3,77	<0,01
	Balance	3,75±0,14	4,67±0,15	4,48	<0,001
	Pre-acrobatic elements	3,50±0,20	4,33±0,20	2,93	<0,05

The most significant (p<0,001) positive shifts have been obtained in terms of expressiveness of body movement and balance. The indicators have improved by 33% and 25% in absolute terms. Therefore, the choreographic training fully contributes to better and more coordinated body movements combined with balance.

It should be noticed that the indicators (p<0,01) have less improved in the components of character assessment (t=3,71), the average score has increased by 0,8 points; of rhythm (t=4,18), the average score has increased by 0,9 points; of jumping (t=3,22), the average score has increased by 0,6 points and turns (t=3,77), the average score has increased by 0,9 points. There have been also positive changes (p<0,05) in such indicators as dynamic changes (t=2,50) and pre-acrobatic elements (t=2,93), the average score of these indicators has increased by 0,8 points. This shows

that the usage of choreography in the training process in accordance with each exercise allows you to improve the quality of performance of the basic elements of rhythmic gymnastics at the stage of initial training.

Table 4

Statistical readiness indicators of the pedagogical experiment control group gymnasts (n = 12) (points)

Components	The constituents of components of assessment	Control group (n=12)		t_e	p
		initially	finally		
		$\bar{X} \pm m$, *points*			
Artistic	Character	3,50±0,20	3,58±0,16	0,31	>0,05
	Rhythm	3,25±0,14	3,42±0,16	0,80	>0,05
	Dynamic changes	3,33±0,20	3,50±0,24	0,54	>0,05
	Expressiveness of body movement	3,33±0,20	3,25±0,14	0,32	>0,05
Technical	Jumping	3,75±0,14	3,83±0,17	0,36	>0,05
	Turns	3,42±0,24	3,50±0,20	0,26	>0,05
	Balance	3,58±0,16	3,75±0,14	0,79	>0,05
	Pre-acrobatic elements	3,67±0,17	3,5±0,16	0,60	>0,05

At the same time the dynamics of changes in the assessment of the components of the fulfillment of the competitive program at the beginning and after the pedagogical research in the control group is highlighted in the following results: expert assessment of the component "character" in the group in percentage terms has increased by 2,3 % (t=0,31, p>0,05), of the component "rhythm" - by 5,2 % (t=0,80; p>0,05), of the component "dynamic changes" - by 5,1% (t = 0,54; p>0,05), of the component "jumping" - by 2,1% (t=0,36; p>0,05), of the component "turns" - by 2,3 % (t=0,26, p>0,05), of the component "balance" - by 4,7 % (t=0,79, p>0,05). But the expert assessment of such components as "expressiveness of body movement" (t=0,32; p<0,05) and "pre-acrobatic elements" (t=0,60; p>0,05) have decreased by 2,4 % and 4,6 % respectively.

When comparing the indicators of the level of technical and artistic readiness of gymnasts from the control and experimental groups, the reliability of the results in all components of the competitive program is observed (Fig. 1).

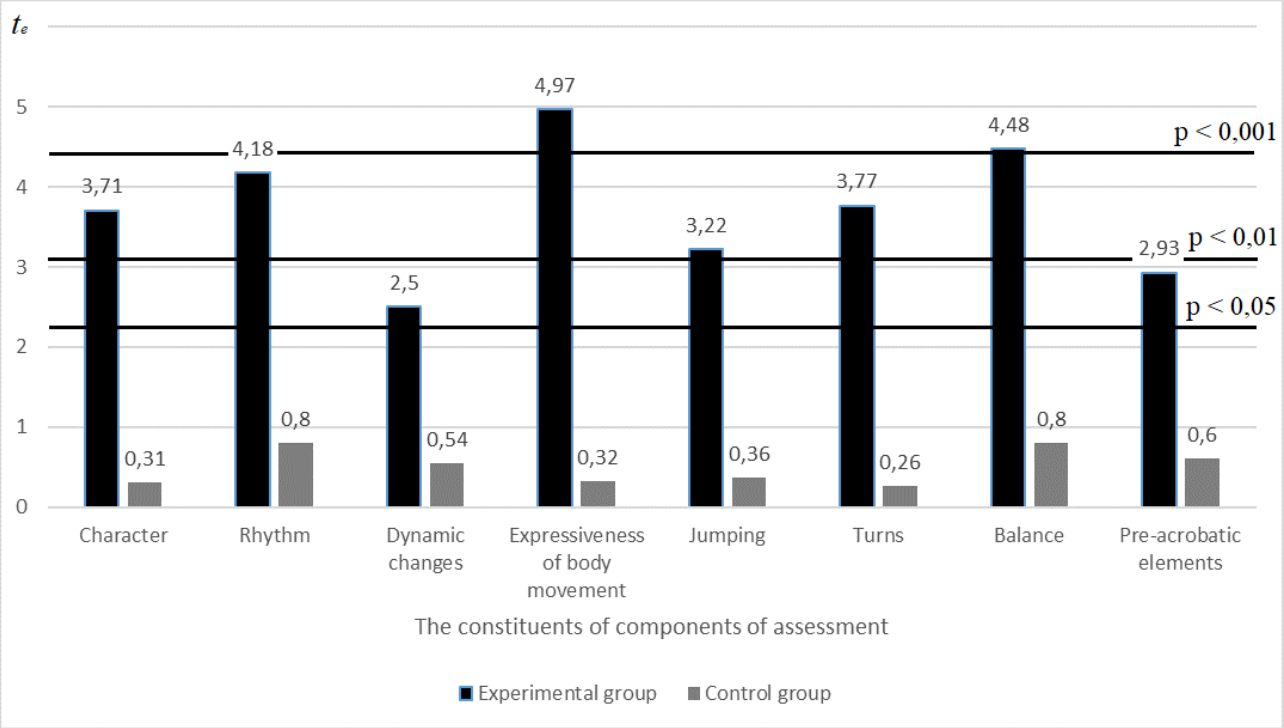

Fig. 1. Reliability of readiness level indicators of control and experimental groups gymnasts after pedagogical experiment

A positive difference was found in favor of the experimental group in the comparative characteristic of the average statistical assessment of the components of the competitive program fulfillment by novice gymnasts in rhythmic gymnastics. The percentage is: the control group – 3,9 %, the experimental group – 25 %.

Table 5

Results of comparing the assessments of the gymnasts of the control and experimental groups obtained at the end of the pedagogical experiment (points)

Components	The constituents of components of assessment	Experimental group (n=12)	Control group (n=12)	t_e	p
		$\overline{X} \pm m$, points			
Artistic	Character	4,42±0,16	3,58±0,16	3,71	<0,01
	Rhythm	4,75±0,14	3,42±0,16	6,26	<0,001
	Dynamic changes	4,33±0,23	3,50±0,24	2,50	<0,05
	Expressiveness of body movement	4,42±0,16	3,25±0,14	5,50	<0,001
Technical	Jumping	4,00±0,13	3,83±0,17	0,79	>0,05
	Turns	4,25±0,14	3,50±0,20	3,07	<0,01
	Balance	4,67±0,15	3,75±0,14	4,48	<0,001
	Pre-acrobatic elements	4,33±0,20	3,50±0,20	2,93	<0,01

Table 5 shows the results of comparing the average scores of gymnasts obtained at the end of the pedagogical experiment. The indicators of the experimental group have significantly improved in the artistic components - "rhythm" ($t=6,26$; $p<0,001$) and "expressiveness of body movement" ($t=5,50$; $p<0,001$), and in technical components - "balance" ($t=4,48$; $p<0,001$). But unfortunately, there have been no changes in the assessment of the technical component "jumping" ($t=0,79$; $p>0,05$).

Conclusions / Discussion

The research on this topic has shown a number of scientific developments and practical measures for implementation of methods and means of choreography into the educational process in improving the technical and artistic readiness of athletes involved in rhythmic gymnastics.

The role of a rhythmic gymnastics coach is quite clear, but a choreographer's role is quite complex - to teach girls how to move beautifully, perform dance elements correctly, involve them in the culture of movements, the aesthetics of gestures, etc.

The obtained results indicate that the usage of choreographic exercises along with the basic elements of rhythmic gymnastics has made it possible to increase the results of novice 5-6 year old athletes from the experimental group in relation to the control group in performing the components: "expressiveness of body movement" ($t=4,97$; $p<0,001$), "balance" ($t=4,48$; $p<0,001$), "character" ($t=3,71$; $p<0,01$), "rhythm" ($t=4,18$; $p<0,01$) , "jumping" ($t=3,22$; $p<0,01$) and "turns" ($t=3,77$; $p<0,01$).

Thus, choreography has become an integral part of the training of novice 5-6 year old athletes and occupies not the last place in the process of training in rhythmic gymnastics. It is during these classes that the posture is formed, the musculoskeletal system is strengthened and the culture of the gymnasts' movement is formed.

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