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Dynamics of athletes choreographic preparedness level at the stage of specialized basic training (on the basis of sports aerobics)

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Article shows the effectiveness of the author's program of choreographic training at the stage of specialized basic training in sports aerobics.

Purpose: *revealing changes in the level of choreographic preparedness of young athletes at the stage of specialized basic training.*

Material & Methods: *method of expert evaluation, statistical methods of research.*

Results: *a methodology for assessing the choreographic preparedness of athletes at the stage of specialized basic training was introduced. Objectivity of the methods consisted in counting the indices of choreographic readiness. On the basis of the data obtained, it was established that in the experimental group of gymnasts a significant increase in the choreographic skill took place, which was recorded by the group indicator of the formation of the choreographic readiness, and also by all the criteria for choreographic readiness.*

Conclusion: *experimentally proved the effectiveness of the introduction of the author's program of choreographic training in the training process of gymnastics at the stage of specialized basic training to improve their choreographic skills.*

Keywords: *choreography, choreography training, technical and aesthetic sports, sports training stages.*

Introduction

Choreographic preparation at various stages of long-term preparation refers to the system of values of athletes; they form the prerequisites for the successful formation and maintenance of the level of athletic skill and harmonious development of personality. The choreographic preparation acquires a special urgency in regard to technical and aesthetic sports, where the sports result is scored in points, depending on the beauty, complexity, accuracy and efficiency of the performance of competitive programs. The development of loyal programs for choreographic training is considered expedient and relevant at every stage of sports training. It should be noted that the stage of specialized basic training is particularly important, when the development of the individual motor style of an athlete.

Relationship of research with scientific programs, plans, themes. The work was carried out in accordance with the research topics "Theoretical and methodological fundamentals of managing the training process and competitive activities in the Olympic, professional and adaptive sport" in accordance with the LSUPC plan for 2016–2020 (number of state registration: 0116U003167).

The purpose of the research: revealing changes in the level of choreographic preparedness of young athletes at the stage of specialized basic training.

Objectives of the study:

1. Introduce a methodology for an objective assessment of choreographic preparedness in technical and aesthetic sports at the stage of specialized basic training.

2. To investigate the level of the formation of criteria for the choreographic preparedness of athletes in sports aerobics at the beginning and end of the macrocycle.

Material and Methods of the research

Methods of research: pedagogical experiment, method of expert evaluation, statistical methods of research.

Results of the research and their discussion

Characterizing the stage of specialized basic training, it should be noted that it is in the 15–17 years that the development of the choreographic "school", the formation of the necessary motor qualities of the athlete, the experience gained in various competitions and demonstration performances.

The goal of the choreographic training at the stage of specialized basic training is to improve the choreographic preparedness – performing dance elements in difficult conditions.

Main objectives of the choreographic training at this stage are: 1) improving the quality, stability and reliability of performing choreographic elements; 2) improving expressiveness, musicality, artistry; 3) correcting the shortcomings of physical development by means of choreography; 4) improving the stability of the body, "aplomb"; 5) improving the technique of performing adagio and allegro.

Dynamics of the level of choreographic preparedness at the stage of specialized basic training on the conditions for introducing the system of choreographic training in technical and aesthetic sports was determined on a sample of 61 athletes – junior gymnasts aged 15–17, CMS, MS, who expressed a desire to become participants in the approbation. Based on

preliminary expert evaluation, the sample was distributed to EG (30 participants) and CG (31 participants).

At the stage of specialized basic training, choreographic exercises were introduced into the training session both as a warm-up and in the final part of the training session in combination with general developmental and breathing exercises. The duration of the choreographic workout is from 15 to 20 minutes. The final part of the training session used parterre choreography – up to 15 minutes. Separately, classes were held on choreography for 60 min 3 times a week. In total for the academic year the duration of the choreographic training was 176 h.

Training of the CG was held according to the standard program on sports aerobics.

To identify the dynamics of the choreographic preparedness, a group of experts from five sports experts (choreographers and coaches for sports aerobics) were involved. The experts were invited to evaluate a set of criteria for choreographic preparedness with a detailed description of each of them: posture, turning and stretching of the legs, stability, accuracy of movements of hands and feet, completeness, lightness and fusion of movements, musicality and dance, illustrative and emotional expressiveness. All criteria were evaluated taking into account the requirements for the technique of performing "choreographic elements" on the part of choreography and in the aspect of the requirements of competition rules.

In order to study the effectiveness of the proposed experimental programs, we calculated the individual coefficient of the formation of the criterion (k), which indicated the ratio of the sum of expert assessments in their number for a single criterion and was calculated from the formula 1:

$$k=\Sigma E/N,$$

where k – individual coefficient of formation criteria; Σ – sum; E – evaluation; N – number of experts.

The individual index of the athlete's choreographic preparedness (*I*) was defined as the average arithmetic value of the individual formation factors (*k*) for all thirteen criteria. To characterize the level of formation of a group of individual criteria calculated group index formation (I_{gr}), which is defined as the arithmetic mean score of individual factors of formation (*k*) of all of the subjects in the sample.

To simplify the presentation and interpretation of factual information, the boundaries of a low, sufficient and high level of athletes' choreographic preparedness are defined. For this purpose, the arithmetic mean (M=1,52) and the standard deviation (SD=0,21) of the individual indicators of the technical component of the choreographic preparedness of all participants in the test are calculated and the estimation intervals that are based on the author's scheme for interpreting the results:

– low level (less than 1,2 points) – prevalence of gross errors in the performance of most choreographic elements;

– sufficient level (1,3–1,7) –athlete assumes inaccuracy of the execution of the details of the technique, reduces the effectiveness of the action as a whole;

– optimal level (more than 1,8) – unmistakable performance by the athlete of most of the basic choreographic elements.

Analysis of the individual data obtained after the completion of the experiment in EG, indicates that among them there are none who, according to the individual index of choreographic preparedness, had a low level. Most of them (90% of the subjects) reached a high level of formation of this criterion; the rest (10% of gymnasts) demonstrates a sufficient level. The average arithmetic value of this indicator in the group also corresponds to a high level (M=1,82±0,07).

Study of the distribution of subjects according to the levels of formation of choreographic preparedness according to certain criteria indicates that the majority of athletes at the final stage of the experiment achieved high or sufficient levels of choreographic skill (Table).

Summarizing the results of the experimental study of the dynamics of the level of choreographic preparedness at the stage of specialized basic training, we will focus on the fact that during the period of training according to the program

Formation of the criteria for the choreographic readiness of athletes EG and CG at the stage of specialized basic training at the end of the choreographic preparedness experiment (%)

Criteria of choreographic readiness	Experimental group			Control group		
	low	sufficient	high	low	sufficient	high
Posture	0	30	70	25,8	41,9	32,3
Reversibility	0	36,7	63,3	25,8	38,7	35,5
Leg stiffness	0	33,3	66,7	25,8	51,6	22,6
sustainability	3,4	33,3	63,3	19,4	51,6	29
Accuracy of leg movements	0	33,3	66,7	48,4	38,7	12,9
Accuracy hands movements	0	26,7	73,3	16,1	54,9	29
Completeness	0	23,3	76,7	22,6	51,6	25,8
Lightness	0	30	70	35,5	35,5	29
Mobility of movements	0	36,7	63,3	19,4	51,6	29
Musicality	0	46,7	53,3	45,2	29	25,8
Dance	0	63,3	36,7	54,8	38,7	6,5
Illustrative expressiveness	0	60	40	54,8	35,5	9,7
Emotional expressiveness	0	53,3	46,7	64,5	16,1	19,4
Index of choreographic readiness	0	10	90	0	96,8	3,2

constructed in accordance with the system of choreographic training in technical and aesthetic sports, female athletes experienced an increase in the level of choreographic skill from a low (in 30% of athletes) and sufficient (in 70% of athletes) to a sufficient (in 10% of athletes) and high (in 90% of athletes), that in determining the group index of formation (I_{gr}) of the choreographic preparedness is expressed in the growth of its value from 1,31 points (sufficient level) to 1,82 points (high level), which is statistically significant (t=12,63) at the level p<0,001.

During the same period of training in the traditional program of specialized basic choreographic training, athletes experienced an increase in the level of choreographic skills from a low (in 32,3% of athletes) and sufficient (in 67,7% of athletes) to a sufficient (in 96,8% of athletes) and high (3,2% of athletes), that when determining the group index of formation (I_{gr}) of choreographic preparedness, it is expressed in a certain growth tendency from 1,31 points (sufficient level) to 1,45 points (sufficient level), can not assume statistically significant (t=1,98; p<0,1).

In addition, it was statistically confirmed that athletes in the EG, who demonstrated the state of choreographic fitness before the beginning of the experiment, the same as the gymnasts of the CG (t=0,10), after the experiment ended, they differed by a much higher level of the formation of choreographic skills (t=10,02; p<0,001).

Thus, in the molding experiment it is proved that at the stage of specialized basic choreographic training, provided that training is conducted in accordance with the proposed program, athletes can achieve a significant increase in choreographic skill than when organizing classes in accordance with the traditional form of training.

Conclusions

A methodology for assessing the choreographic preparedness of athletes at the stage of specialized basic training was introduced. The objectivity of the technique was to calculate the choreographic readiness index. Experimentally tested the effectiveness of the introduction of the author's program of choreographic training in the training process of athletes (on the basis of sports aerobics). On the basis of the data obtained, it was found that in the experimental group of gymnasts there was a significant increase in the choreographic skill, which was recorded according to the group indices of the formation of the choreographic preparedness, as well as by all the criteria by which this index was determined. That is, experimentally proved the effectiveness of the author's program of choreographic training in the training process of gymnasts at the stage of specialized basic training to improve their choreographic skills.

Prospect of further research is to determine the dynamics of the level of choreographic preparedness at the next stages of sports training in technical and aesthetic sports.

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