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STUDY ON THE BASIC TECHNICAL TRAINING ON THE FLOOR IN THE 9 YEAR-OLD GIMNASTS

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Abstract. *The main purpose of the paper is to highlight the content of floor acrobatics exercise learning to 9 year-old gymnasts. We have decided to organize an experimental study within the Dynamo Sport Club in Bucharest. A group of 4 gymnasts aged 9 years. The study was conducted between January 2018 and April 2018. In the research, control samples were applied to assess the level of technical and artistic and floor-based training in the checking practice and event .The results of learning acrobatic elements on the floor of the beginner 9-year-old gymnasts reveal that following the application of the technical control samples contributes to the improvement of the technical execution and it is necessary to meet the amendments of the junior gymnasts category III, level 1. And choosing the most effective preparatory and auxiliary exercises depending on the control and regulation of the acrobatic exercise learning process on the floor to the 9 year-old gymnasts, it leads to the improvement of the proposed learning outcomes.*

Keywords : *gymnastics, acrobatics, physical training, technical training, performance*.

Introduction. Nowadays artistic gymnastics has a special dynamic of development in terms of increasing the difficulty, originality, complexity and pageantry of the exercises, being considered as a sport and a show at the same time. The systematic practice of artistic gymnastics, both on the basis of the principles and requirements of the sports training, as well as of the competition regulation, leads to the improvement of the execution technique, the attainment of the sporting skill and ultimately the achievement of the national and international performances as a continuation of the individual talent [1, 5, 8, 10].

Technical training means all measures of a methodical, organizational or other nature in the sport training process in order to acquire the technique of gymnastics. In gymnastics, the role of technical training is very high and is closely interdependent with the other components, thus a poor physical training of children leads to a wrong, faulty technique and thus to failure in the competition. Also, good technical training, based on good physical training, but in the absence of adequate psychological training, results in modest performance [5, 7]

In any sporting discipline, as well as in artistic gymnastics, the learning process, by its quality, influences the achieved performances. Learning in sports activities is generally referred to as "motor learning" [5, 9].

Gymnastics teaches acts and motor actions (elements, links) that are based on experimental models that ultimately lead to motor conduct, conduct that is given by the craftsmanship in execution, but also by the system of knowledge specific to gymnastics. The learning process of gymnastic movements is a complex process that includes, besides gestural learning, motor skills, at the level of skills and habits, forms of intelligent learning, including the acquisition of notions, concepts and creative learning. Depending on the learning stage, in gymnastic motor learning -

as a training process - the whole system of methodical training methods and procedures is used. Methods and procedures are used according to the physical and technical training of the gymnast, the degree of difficulty and structure of the technical element, the learning phase [2, 4, 10].

Artistic training is a component of the sports training that we find in those sporting disciplines where the competition is judged by referees ' squads (artistic gymnastics, rhythmic gymnastics, aerobics, artistic skating, synchronized swimming, water jumping , ski jumping, etc.). The content of the artistic training includes: dance training, artistic creation, musical education, plastic education, preparation for expression-communication, gymnastics (specific to gymnastics) [6, 9].

Floor is a complex test involving various movements that harmoniously combine the suppleness with the dynamism, the expressiveness with the force, the courage with the self-mastery, the musicality with the rhythm of execution [3]; the technical training of the gymnast, the originality of the elements and combinations, the temperament are valued. In the composition of acrobatic exercises for girls, a bigger share has acrobatic elements of mobility, balance, dynamic and artistic elements. Acrobatic exercises are accessible, attractive and spectacular. They can be from the simplest, such as tumbling to the most complex moves, such as double and triple jumps, jumps with 2-3 screws, etc. [9, 12, 13].

The main aim of the paper is to highlight the content of acrobatic exercise learning on the floor in the 9 year-old gymnasts.

The hypothesis of the work

We believe that choosing the most effective preparatory and auxiliary exercises to control and regulate the acrobatic exercise learning process on the floor in the 9-year-old gymnasts will lead to improved learning outcomes.

Methodology and organization of research

In order to verify the study hypothesis and to achieve the proposed aim, an experimental study was organized within the Dynamo Sport Club in Bucharest. The location the CS Dynamo Bucharest gym. The study included 4 gymnasts aged 9 years.

The study was conducted between January, 2018 and April ,2018.

Stages of the study:

Initial stage (3-10.-01.2018) - initial testing of the physical development level, appreciation of the level of learning the acrobatic elements according to the gymnasts floor program.

Fundamental stage (11-24.04.2018) - application of the program of learning the elements included in the content of the classification program.

Stage III (26-30.04.2018) - final test, on the analysis of floor acrobatic learning results.

The following research methods were applied in the study:

1) Study of bibliographic literature.
2) Method of pedagogical observation.
3) Method of tests and technical control samples
4) The method of pedagogical experimental study, using the technique of a single research group (investigation).
5) The statistical and mathematical method and the graphical representation of the study results.

Applied control samples:

The following samples and control tests [11] were applied in the study:

Acrobatic elements:

1) Technical test 1 – Tumbling- (flick-flack) -backward handspring salto, appreciated from1-10 points;

2) Technical Test 2 - Tumbling forward on two-leg (flick-flack), appreciated from 1-10 points;

3) Technical test 3 – Forward handspring salto, appreciated from 1-10 points;

4) Technical Test 4 – Tumbling - three backward turns, appreciated from 1-10 points;

Artistic elements:

5) Technical Test 4 –artistic passage: 2x leaps "step" with développé in direct link, appreciated from 1-10 points

6) Technical Test 6 – Pirouette with min. 360 ° turn on 1 foot AND 360 ° Assemblé tour 360 ° (with / without chassé), appreciated from 1-10 points;

C. Performance ability - The results achieved in the training session appreciated through scores from 1-10 points and the National School Championship, Buzau, 2018 – on the floor (D + E = final note – points).

Fig. 1. Tumbling- (flick-flack) -backward handspring salto

Fig.2. Artistic passage: 2x leaps "step" with développé in direct link

Research results and discussions on them

Table 1 and Figures 3 and 6 show the results of learning the acrobatic elements according to the amendments of junior gymnasts' category III, 1evel (9 years) in the initial testing and final testing.

Figure 3 presents the learning results of the acrobatic series - tumbling- (flick-flack) - backward handspring salto appreciated from 1-10 points. The results of the comparative analysis reveal an average of 8,125 points in the initial testing and an increase of 0,375 points in the final test, the average being equal to 8,50 points, with high homogeneity in both tests and insignificant differences at p> 0,05.

Table 1. The results of learning acrobatic elements according to the amendments of junior gymnasts category III, level 1 in initial testing

Statistical indicators	Technical test 1		Technical test 2		Technical test 3		Technical test 4	
	Initial	Final	Initial	Final	Initial	Final	Initial	Final
x	8,125	8,50	8,25	8,625	8,00	8,625	8,125	8,625
±m	0,125	0,00	0,25	0,125	0,35	0,375	0,125	0,125
S	0,25	0,00	0,5	0,25	0,71	0,75	0,25	0,25
Cv%	3,07	2,89	6,06	2,89	8,83	8,69	3,07	2,89
t	3,000		3,000		5,000		2,449	
P	>0,05		>0,05		<0,05		>0,05	

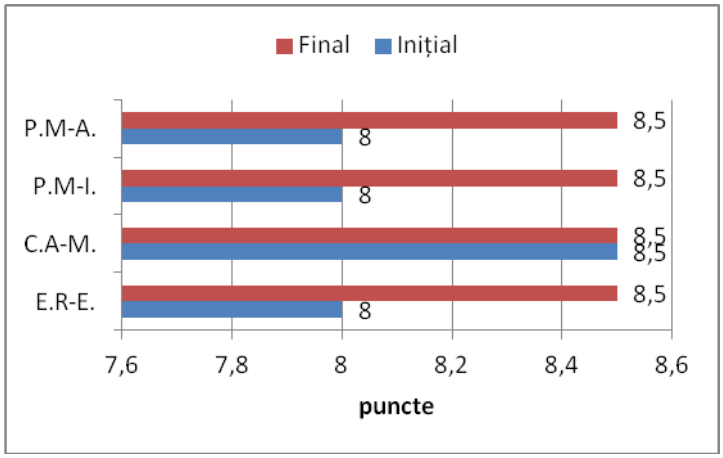

Fig. 3. Learning results of the acrobatic series technical test 1
(Tumbling- (flick-flack) -backward handspring salto)

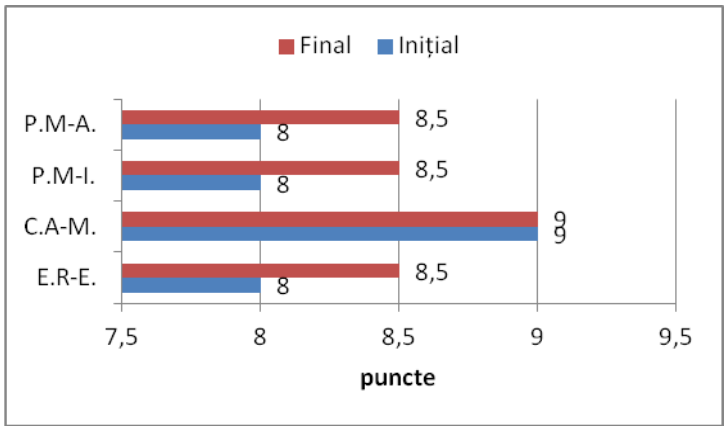

Fig. 4. Learning results of the acrobatic element technical test 2 (Tumbling forward on two-leg (flick-flack)

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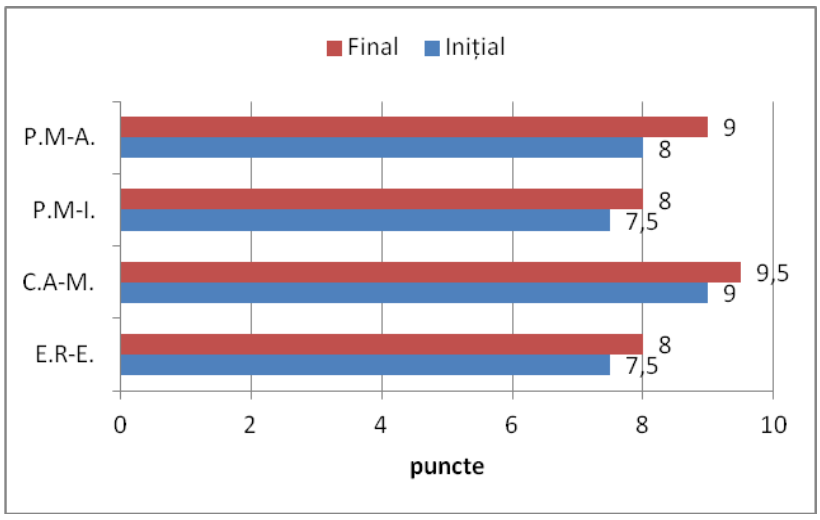

Fig. 5. The results of learning acrobatic element technical test 3 (Forward handspring salto)

Figure 4 presents the results of learning the acrobatic element - tumbling forward on two-leg, appreciated with scores from 1-10 points. The results of the comparative analysis reveal an average of 8.25 points in the initial testing and an increase of 0.375 points in the final test, the average being of 8.625 points, with high homogeneity in both tests and insignificant differences at p>0.05.

Figure 5 presents the learning results of the acrobatic element - forward handspring salto appreciated from 1-10 points. The results of the comparative analysis reveal an average of 8.00 points in the initial testing and an increase of 0.625 points in the final test, being 8.625 points, with high homogeneity in both tests and significant differences at p <0.05.

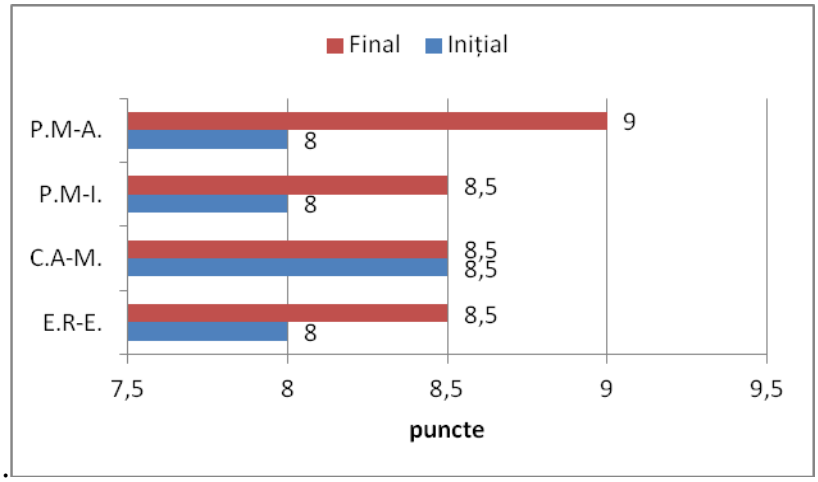

Fig. 6. Learning results of the acrobatic series technical test 4 (Tumbling - 2 flick-flaps - landing)

Figure 6 presents the results of learning the acrobatic series – tumbling - two backward turns (flick-flaps) - landing, appreciated with scores from 1-10 points. The results of the comparative analysis reveal an average of 8,125 points in the initial testing and an

increase of 0,50 points in the final test, the average being equal to 8,625 points, with high homogeneity in both tests and insignificant differences at p> 0,05.

Table 2 and Figures 7 and 8 show the results of learning the floor artistic elements in accordance with the amendments of junior gymnasts' category III, level 1, in the training.

Table 2. The results of learning the floor artistic elements according to the amendments of the junior gymnasts category III, level 1

Name and surname	Technical test 5		Technical test 6	
	Initial	Final	Initial	Final
E.R-E.	8,5	9	8,5	9
C.A-M.	8,5	9	9	10
P.M-I.	8,5	9	8,5	9
P.M-A.	8,5	9,5	8,5	9
Statistical indicators				
x	8,50	9,125	8,625	9,25
±m	0,00	0,125	0,125	0,25
S	0,00	0,25	0,25	0,5
Cv%	0,00	2,74	2,89	5,41
t	5,000		5,000	
p	<0,05		<0,05	

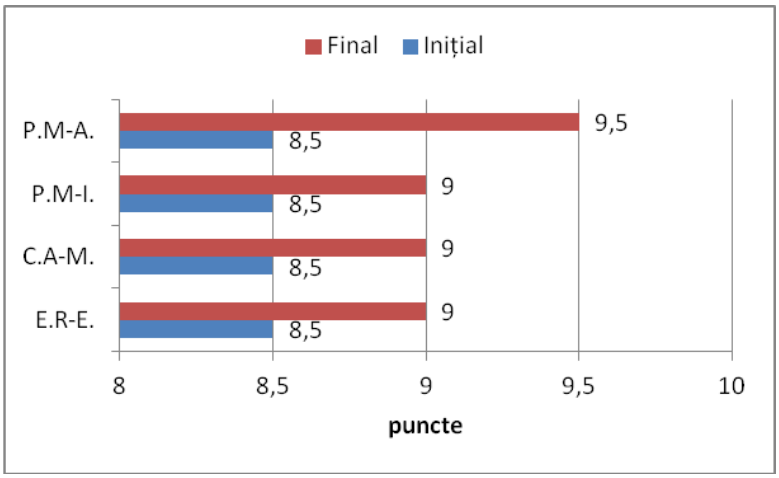

Fig. 7. The learning results of the artistic element the technical test 5 (Artistic passage: 2x leaps "step" with développé in direct link)

Figure 7 shows the learning results of the artistic Passage: 2x leaps "step" with développé in direct link The results of the comparative analysis revealed an average of 5.50 points in the initial testing and an increase of 0.625 points in the final test, the mean being equal to 9.125 points, with high homogeneity in both tests and significant differences at p <0.05.

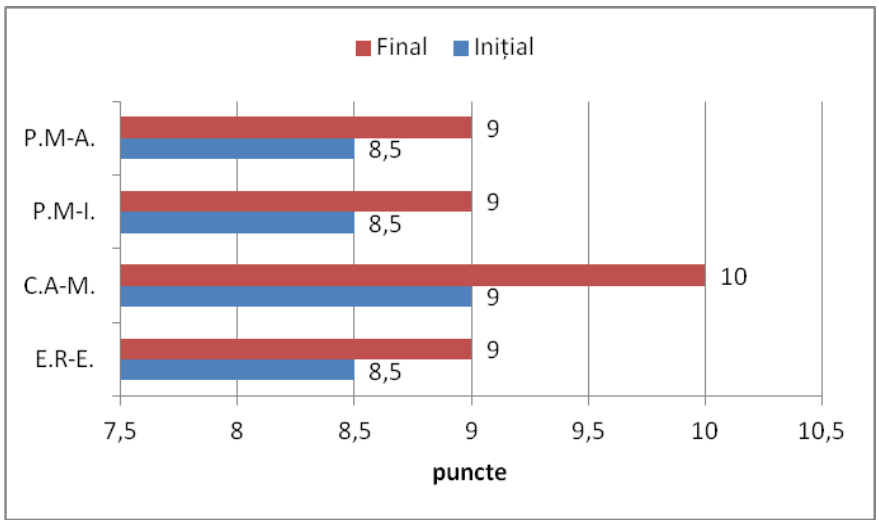

Fig. 8. The learning results of the artistic element - technical testing 6 (Pirouette with min. 360° turn)

Figure 8 presents the learning results of the Pirouette with min. 360° turn. The results of the comparative analysis revealed an average of 8.625 points in the initial testing and an increase of 0.625 points in the final test, the mean being equal to 9.25 points, with high homogeneity in both tests and significant differences at $p<0.05$.

In Table 3 and Figure 9 are presented the performance results achieved on the floor by the junior 9 year-old gymnasts during the National School Championship, April in Buzau 2018.

Table 3 and Figure 9 show the results of the performance ability achieved by juniors gymnasts category III, the level on the performance mean in the examination training of 8,600 points, the mean of the exercise difficulty in competition of 4,125 points, the execution note - 8,125 points and the final note of 12,263 points.

Table 3. Results of the performance ability of junior gymnasts category III, level 1

Name and surname	Training examination, points	Event – floor, points		
		Difficulty	Execution	Final note
E.R-E.	8,400	4,000	8,000	12,000
C.A-M.	8,700	4,000	8,350	12,350
P.M-I.	8,500	4,000	8,000	12,000
P.M-A.	8,800	4,500	8,200	12,700
Statistical indicators				
x	8,600	4,125	8,125	12,263
±m	0,09	0,125	0,08	0,17
S	0,18	0,25	0,17	0,34
Cv%	2,12	6,06	2,09	2,73

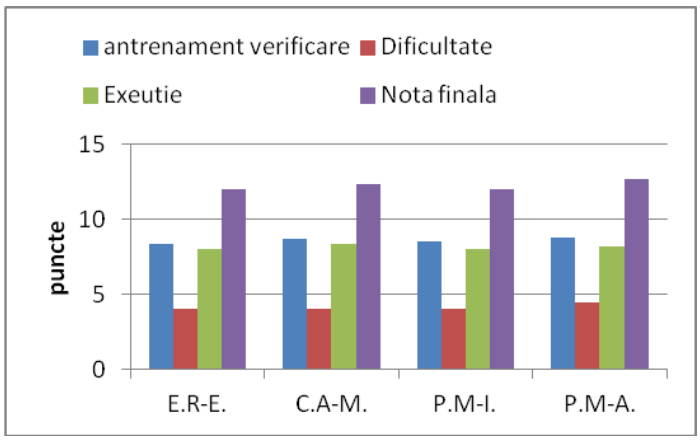

Fig. 9. Results of the floor performance ability of junior gymnasts category III, level 1

Conclusions

The study highlights the content of acrobatic exercise training on the floor of 9 year-old gymnasts by using the most effective means of training in these apparatus.

As a result of the application of the technical control tests, the optimal improvement of the technical execution is observed and it is necessary to perform the amendments of the junior gymnasts' category III, level 1.

By choosing the most efficient conditioning and supporting exercises depending on the control and regulation the learning process of acrobatic exercises on the floor of 9 year-old gymnasts, it helps to improve the learning proposed results. But the level of technical achieved training will allow us to ensure the continuity of training for the next level of training, which confirms the proposed study hypothesis.

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