

THE IMPACT OF ARTISTIC TRAINING ON THE EXECUTION OF SOME JUMPS IN AEROBICS

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Abstract: Aerobic performance requires a combination of technical elements and choreography. For this reason, artistic preparation is extremely important in this branch of sport. The purpose of research is to identify the impact of the means designed for artistic training on the physical and technical preparation of 12 athletes (14-15 years). Thus, for six months they had new operational models with the specific classical dance means, being tested before and after our intervention in training. Following the results achieved, significant changes in the execution of five jumps from group C, the legs force and overall coordination, differences in the initial and final means, falling within an increased significance level $p < 0.05$, were highlighted.

Keywords: group C, performance, aerobics sport.

Introduction

The current sport phenomenon, through the level achieved, but also through the social order tends to diversity, to efficiency, shifting the balance pan towards those branches, such as aerobics sport, that may comprise, in their area of maintaining and optimizing the physical condition and state health, broad categories of the population.

The aerobics sport causes the natural temptation of human intelligence of self-knowledge, or the human aspiration to achieve the highest level of self-awareness. The justification is found in man's unceasing desire to overcome and surpass himself in any direction, to fight and win, to find new forms of manifestation of the perfection, of supremacy. This discipline trains the capacity of assessment and self-esteem, particularly important to image the ego.

The means offered by aerobics sport is that it can make them redefine their own body image, social identity, willingness to work towards interpersonal communication. This leads to the complex education of superior moral, physical and psycho-behavioral capacity. [1]

The aerobics sport dynamism creates a special aesthetic dimension and profound and stable emotional satisfactions. Aerobic performance is a competitive sport which captivates the sports enthusiast. It is a unique combination of aerobic choreography and gymnastics elements.

It is a mixed sport, which adjusts at the level of the model, the relationships and communication between boys and girls, because of the particular distinct aspects. sport

The aerobics is a useful and pleasant model of collaboration between youth, a universal communication bridge between generations.

The difficulty is one of the essential criteria of assessment and outing exercises in aerobics sports. Exercises must demonstrate a balance between the aerobics specific movements with (combinations of high and low movements) and elements of difficulty. There shall be allowed a maximum of 12 items of difficulty, harmoniously selected from all four groups from the scoring Code: Group A - dynamic force; Group B - static force; Group C - Jumping; Group D - Balance and Mobility. [2]

All the elements in Group C must demonstrate explosive force (expansion) and maximum amplitude. The jumps show the following general characteristics:

- in the air the posture must be well defined;
- while landing, the body segments must present a perfect alignment;
- with landings in push up, the hands and feet must touch the ground simultaneously, in a controlled manner;
- with elements completed in push up, the chest should not touch the ground;
- while landing in string, the hands can touch the ground;
- Landing on one leg or on two legs is considered a variation of the same element; the same is true for the detachment.

Artistic training base is formed in children through exercises borrowed from classical ballet. We opt not to insist on the perfection of technique, because we do not aim to train dancers but gymnasts and the choreographic training will be complemented by specific

physical training components of neuromuscular coordination. [3]

This extremely important aspect involves customizing the artistic preparation of gymnasts with direct influences on postural stability during execution. Stability seen as a tangible force led body control determined by movement, coordination and efficiency involves a complex interaction between sensory, mental and motor elements. [4]

The motor content will be complemented by knowledge of musical training through the basics of theory. These include musical patterns that are organized on an agogic compartment and on a dynamic one.

Materials and methods

To conduct this research, we chose a group of 12 athletes (age 14-15 years) from the National College Sports Cetate Deva, who served in aerobic sport between 3-5 years. The experiment was conducted in the 2013-2014 school year, for 6 months, the subjects were tested before and after the proposed operational models that have the preponderance of specific classical dance means. The tests were: standing long jump (to determine the strength of the lower limbs) and Matorin test (to determine the overall coordination). Also five difficulty jumps from group C (Air turn, turn tuck, pike, street and split to split) were evaluated through scoring, according to FIG scoring code.[2]

Operational Model No.1 at wall bar

1. sitting with the left shoulder to the bar, grabbed by hand on the same side, right hand on the hip: 1-4 - battement tendu forward with the right foot; 5-6 - battement tendu backward with the left foot.

2. sitting to the bar with the left shoulder, grabbed by hand on the same side, right hand on the hip: 1 - right leg bent in passe; 2 - stretching the right leg forward with the tip resting on the ground; 3 is repeated motion 1; 4- comeback.

3. standing position VI, facing the bar, grabbed with both hands: 1-4 - demi-plie; 5-6 - releve; 7 - passe with the right; 8 - return.

4. -standing position VI, facing the bar, grabbed with both hands: 1-4 - demi-plie; 5-6 - releve; 7 - passe the left foot; 8 - return.

5. standing to the bar with the left shoulder, grabbed by hand on the same side, the right arm laterally: 1 - lowering the right arm rounded; 2 - lifting forward the upper right arm, rounded; 3-4 - bending forward trunk; 5-

6 - trunk return with rounded forward right arm; 7-8 - carrying forward the right arm laterally.

6. sitting in sixth position, facing the bar, grabbed with both hands: 1 - leap vertically splitting the legs and landing legs split; 2 - jump with legs brought together in the air and landing.

Operational Model no.2at wall bar

1. sitting position I, facing the bar, grabbed with both hands: 1 - bending the knees oriented outward (demi-plie); 2 - return; 3-4 - is repeated; 5-6 - complete bending of the knees (grand-plie); 7-8 - return to start position.

2. standing, position I, left shoulder to the bar, grabbed by hand on the same side, the right arm laterally: 1 - bending the knees; 2 - stretching the right leg forward resting on the tip; 3 - bent return of the right leg; 4 - stretching the knees; 5-8 repeat with the right leg laterally 1-4 - the same with the right leg extension backward; 5-8 - repeat with the right leg laterally stretching.

3. sitting in the second position with the left shoulder to the bar, grabbed by hand on the same side, the right arm laterally: 1 - orienting the right leg resting on tip; 2 - lifting the right leg at 45°; 3 - lowering the leg as in time 1; 4 - return; 5-8 - the same laterally 1-4 - same backward; 5-8 - the same laterally.

4. sitting, position I, facing the bar, grabbed with both hands: 1 - bending of the right side of the trunk; 2 - return; 3-4 - the same to the left; 5-6 trunk extension; 7-8 comeback.

5. standing facing the bar, grabbed with both hands: 1 - slight bending of the knees, impulse and vertical jump; 2 - landing with knees slightly bent; 3-4 repeats; 5-6 - movements 1-4 are repeated, making the jump with a slight splitting of the legs brought together in the air and landing still legs split/apart; 7-8 jump - legs brought together in the air and landing with feet together.

Operational Model No.3at wall bar

1. sitting in the second position facing the bar, grabbed with both hands: 1-2 - large bending of the knees (grand-plie); 3-4 - return; 5-8 - 1-4 are repeated;

2. sitting in fourth position with the left shoulder to the bar, grabbed by hand on the same side, the right arm rounded down: 1 - shifting the weight on the left foot, lifting the right heel off the ground, the tip stretched on the ground (temps- lie); 2 - return;

3. sitting in the second position with the left shoulder to the bar, grabbed by hand on the same side, the right arm laterally: 1 - bending the right knee (passe); 2 - stretching it forward (horizontally); 3 - bending the right knee (passe); 4 - return to start position; 5 - bending the right knee (passe); 6 - stretching the right leg backward, horizontally; 7 - bending the right knee (passe); 8 - return to start position;
4. standing position I with the left shoulder to the bar, grabbed by hand on the same side, the right arm laterally: 1 - the right leg forward, resting on tip; 2 - laterally the right leg (tip sliding on the ground) knee taut; 3 - carry it in the same way back to the tip; 4 - return to start position; 5-8 times repeat movements from the 1-4 times; 1-8 - the same movement, starting with the leg backward
5. sitting in the second position with the left shoulder to the bar, grabbed by hand on the same side, the right arm laterally 1-2 - wave with the right arm; 3-4 - lift right arm up; 5-6 - bending the trunk forward, horizontally, 7-8 - return with right arm descent laterally; 1-2 - wave with the arm laterally; 3-4 - lifting the right arm up; 5-6 - trunk extension; 7-8 comeback lowering laterally the arm
6. sitting in the second position with to the bar the left shoulder, grabbed by hand on the same side, the right arm laterally: 1 - small jump on the left leg with the other swinging forward; 2 - small jump on the left leg keeping the right leg forward; 3 - small jump on the left leg with the right foot tapping on the lower back; 4 - small jump on the left leg, keeping the right leg backward; 5 - small jump on the

left leg with the right foot tapping away forward; 6 - small jump on the left leg keeping the right leg forward; 7-8 - two small jumps on both feet.

Exercises for artistic jumps

1. Standing: 1 - vertical jump with slightly apart and landing legs slightly apart, with tips outward; 2 - vertical jump and landing, legs close together ;
2. Standing with hands on hips: 1-2 - added step elk, starting with the right foot, impulse on it, vertical jump backward with the left foot balancing, horizontally and landing on the right foot; 3-4 - the same with the left foot; 5-8 - repeat movements from 1-4 times
3. Standing, arms laterally, jump by orienting the arms forward from the baseline, upward, rounded over the head. In landing the arms descend laterally (open jump)
4. Standing with arms laterally 1-2 - changed step with the right foot, impulse on it, vertical shear jump and landing on the left foot; 3-8 - 1-2 idem
5. Standing with hands on hips: 1-4 - Running artistic steps starting with the right foot; 5-6 - impulse on the right foot, vertical shear jump; 7 - small standing vertical jump on both feet; 8 - the same with return in 180 degrees
6. Standing: 1 step on the left foot; 2 - detachment; 3 - bending the free leg, then stretching forward; 4 - return to start position. The same exercise should be performed with the other leg.
7. Fouette jump executed on the ground and jumping.

Results and Discussions

Analyzing the data obtained from Matorin general coordination test, there is a substantial increase in athletes' results from the initial testing to the final one, both in terms of turns to the right (11.9%) and those executed to the left (13%). If with the turns on the right, the

string amplitude decreased from 270° (Ti) to 250°(Tf), which means a homogenization of performance around the arithmetic mean, however, the turns to the left, the direction preferred by gymnasts, following the results obtained showed that the amplitude increased slightly, but statistically significant.

Table 1. Descriptive statistics

| Descriptive Statistics | | | | | |
|------------------------|----|---------|---------|--------|----------------|
| | N | Minimum | Maximum | Mean | Std. Deviation |
| Tiright | 12 | 270.00 | 540.00 | 397.50 | 84.436 |
| Tfright | 12 | 330.00 | 580.00 | 445.00 | 77.518 |
| Tileft | 12 | 330.00 | 540.00 | 417.50 | 74.969 |

| | | | | | |
|----------------|----|--------|--------|--------|--------|
| Tfleft | 12 | 360.00 | 600.00 | 465.00 | 73.174 |
| Lung.1 | 12 | 171.00 | 250.00 | 206.33 | 21.588 |
| Lung.2 | 12 | 178.00 | 258.00 | 214.16 | 22.237 |
| AirTurnT1 | 12 | 6.00 | 10.00 | 8.16 | 1.114 |
| AirTurn2 | 12 | 7.00 | 10.00 | 8.83 | .937 |
| TurntuckT1 | 12 | 5.00 | 9.00 | 7.00 | 1.128 |
| TurnTuckT2 | 12 | 7.00 | 9.00 | 7.91 | .792 |
| StradleT1 | 12 | 5.00 | 9.00 | 7.08 | 1.164 |
| StradleT2 | 12 | 7.00 | 10.00 | 8.16 | .937 |
| PikeT1 | 12 | 5.00 | 8.00 | 6.16 | .937 |
| PikeT2 | 12 | 6.00 | 9.00 | 7.58 | .996 |
| SplittosplitT1 | 12 | 6.00 | 9.00 | 7.16 | .834 |
| SplittosplitT2 | 12 | 7.00 | 10.00 | 8.41 | .900 |
| Valid N | 12 | | | | |

The Matorin Test recorded, with the initial testing, an average of $397.5 (\pm 84.43^\circ)$ with the jump with turn to the right and $417.5 (\pm 74.96^\circ)$ to the left, with the final testing the mean values being $445 (\pm 77.51^\circ)$ with the turn to the right and $465 (\pm 73.17^\circ)$ with the turn to the left (Table 1). Applying the t test for dependent samples, there is a value t (-15.59) for the right and t (-5.39) for the left, both values falling at an increased significance level $p < .001$. (Table 2).

In the Long standing jump test, there is a 4% increase in performance between the two tests. Analyzing the differences obtained by the 12 athletes from the initial test with the the final one we grasp increases from 2cm to 13cm, the 8cm mean being the final, which seems to be a good value. Applying the t test for dependent samples, there is a value t (-9.61) the average difference falling within a threshold of significance $p < .001$. (Table 2).

In the test execution of jumps, obvious progress has been made, the differences between the initial and final averages, being statistically significant at a threshold of $p < 0.05$.

Table 2. Paired Samples Test

| | Paired Differences | t | Sig. (2-tailed) | | | | |
|-------------------------|--------------------|-------|-----------------|--------|----------------|-----------------|--|
| | | | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference Lower Upper |
| Tiright - Tfright | -47.50 | 10.55 | 3.046 | -54.20 | -40.79 | -15.59 | .000 |
| Tieft - Tfleft | -47.50 | 30.48 | 8.801 | -66.87 | -28.12 | -5.397 | .000 |
| Lung.1 - Lung.2 | | | | | 8 | | |
| AirTurnT1 - AirTurn2 | -7.83 | 2.82 | .814 | -9.62 | -6.039 | -9.612 | .000 |
| TurntuckT1 - TurnTuckT2 | -.666 | .651 | .188 | -1.08 | -.252 | -3.546 | .005 |
| StradleT1 - | -9.166 | .668 | .193 | -1.34 | -.491 | -4.750 | .001 |

| | | | | | | | |
|----------------|--------|------|------|--------|-------|--------|------|
| StradleT2 | -1.083 | .792 | .228 | -1.58 | -.579 | -4.733 | .001 |
| PikeT1 | - | | | | | | |
| PikeT2 | -1.416 | .996 | .287 | -2.049 | -.783 | -4.926 | .000 |
| SplittosplitT1 | - | | | | | | |
| SplittosplitT2 | -1.250 | .753 | .217 | -1.72 | -.77 | -5.745 | .000 |

The technical jumps (which followed the technique of five major jumps from the scoring code) basically confirmed the results obtained by the athletes in motor tests. More specifically, those who have lower values at lower limb strength testing had difficulties in implementing the proposed jumps. Also the low values obtained by some athletes in The Matorin test were reflected in the wrong execution of turns jumps. However, some athletes managed as with the final testing to correct the executions, which demonstrates that the means we used have been effective in achieving their purpose.

Although artistic training is a difficult aspect of sports training, it should be addressed by appropriate means to improve performance, especially that aerobics is a sub-branch where form is subordinated to the content that generates it. The artistic training results materialize in motor skills practice where performance is achieved with a high degree of expressiveness in order to transmit messages both to the spectators and the referees. [5]

The proposed means proved to be effective, this being readily accepted and practiced by athletes with pleasure, accompanied by a pleasant musical accompaniment. The overall coordination and the force of the lower limbs are capabilities that positively influence the technique of Group C difficulty elements.

Conclusions

The choreographic means training not only contributed to the achievement of a form of motion, which was the basis of expressiveness and correctness, but it also led to improvements in performance indices. The items were made with increased amplitude, which yielded better results in competitions. Following the results, we believe that these tools need to be addressed with more courage and density in the training, aerobics being a sport of beauty and bodily expression.

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