THE DEVELOPMENT OF THE STUDENTS' MOTRIC CAPACITY THROUGH DANCE

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Abstract: Dance, through its contribution, offers unique educational prospects in the physical education, aiming at the creation of meaning and emotion, and at the building of motric expressiveness, by engaging the individual in the process of artistic creation. Therefore, the teacher must understand dance as an activity that should generate the report „expression – impression" in a perspective of communication through choreographic creation. This way of staging a learning activity constitutes a point of departure where teachers can develop the training content.
Keywords: *dance, education, growth.*

Introduction

Dance is a form of movement accessible to all ages, from 6 to 60 years, it can be practiced as a performance sport, as a maintenance sporting activity, as relaxation and mental rehabilitation, as a means of socialization.

Moreover, dance can be: an expression of moods, emotions or ideas; a good storyteller; a servant of religious, political, economic or social needs; an experience lived in a pleasant or aesthetic way.[1]

Physically, dance is the result of an infinite number of human body movements, in the form of: flexion, extensions, shifting, turns, jumps, etc., present in the original combinations, executed individually, in pairs or in groups. The movements are executed under the neuro-motric control through the circuit stimulus - level of analysis – command transmission - the actual execution. Besides providing physical pleasure, dance also has psycho-social effects because it brings together many people, who communicate or feel the same. There are cases when it occurs even within the unconscious, because of the strong emotions experienced during its execution.

In summary, dance should be seen as an umbrella term that represents a multi-factorial activity. It is an expression of the human existence, a creation of man's independent spirit and his desire for social affiliation, a means of experiencing feelings, adaptation and aspiration, of consumption of energy, relaxation, therapy, assessment of self and others. In this context, its social utility and its variety of forms are explained.

The basic means of the dance are choreography, dance elements and compositions.

1. The choreography is by itself a determined system of exercises and methods of the oriented influence towards the forming of the motric culture, widening the diapason of expressiveness. It is the means of major importance of aesthetic education, which forms the correct impression of the beauty of movements, the capacity of the transmission of moods, emotions, sensations, experiences.

The choreographic exercises develop flexibility, coordination of movements, they activate the whole locomotor system, they teach the poly-modal combination of the movements of the arms, torso, head, legs. The method of correcting every move educates its expressiveness, which is inseparable from the essence of the content and aesthetic beauty of the whole body movement.

2. Elements of dance and compositions. Specific dance exercises have a distinctive character that differentiates and defines them, as such, being in their uniqueness the most accessible types of human motric activity. They contribute to the formation of the correct posture, elegance of movements, the expressiveness of the body, elegant walk, etc. At the same time, the dance is in itself a well defined system of movements, possessing the perfect completed artistic form, which is built on the co-coordinated and simultaneous work of all body segments that present his/her coordination qualities.

The dances where there are used portable objects will solicit the performers more, especially solicitations of the nervous nature, given that their handling requires concentration, orientation in space, skill, attention, and the correctness of the form of movement is difficult. The lack of the portable object or of the complex movements can be compensated by more movements, through diverse formations, designs that change often, balancing the momentousness of the dance. [2]

School physical education is an activity of major interest, whose practicing aims to maintain and strengthen health, training and development of positive character traits.

Physical education is a human activity of systematic and conscious practice of the physical exercise, held in form of bilateral educational in order to achieve clearly defined objectives, including the priorities: improving the subjects' physical / body development, improving the subjects' motric capacity (skills, motric skills and qualities). [3]

The specifics of the quality of physical education is not that it is developed a motric activity, but how this work is done, the objectives and focus on the formative value of training. [4]

Materials and methods:

The research has included a sample consisting of 20 female subjects, in high school (9^{th} grade), without health problems, who have voluntarily accepted to participate in this experiment and a control group (composed of 20 female students).

MODERN DANCE – Program

The performers are in two rows in points 2 and 3, with their arms up and forward, rounded. The tallest are in the front rows.

- T1-8 – the performers enter the stage with a step forward (step forward with the left foot, followed immediately by the right foot) to the midline of the stage where they perform a detour to point 1 and continue moving on two parallel rows;
- T1-8 - the first performers in each column move with steps added left and right side laterally, and the next progress, in the end, forming a line with the smallest performers in the center;
- T1-8 – the performers from both sides of the line are retreating back toward the two corners, and finally form two parallel rows on both sides of the work space;
- T1-8 – by twos - two performers of each column move laterally towards the midline of the scene (the back ones with bigger steps, and the others increasingly smaller), reaching , in the end, in formation of open crane (facing the public); throughout these movements, the arms are held up forward, rounded at the elbows;
- T1-4 - slow turn 360^0 to the left, T5-6 - the knees slightly bent with the arms lowering down, T7-8 - back in standing on tiptoe with the arms up forward;
- T1-8 - repeat the previous movements, but to the right;
- T1-8 - movement in regular walk and stepping into circle formation;
- T1-8 - turn left 90^0 and walk on the circle line, arms up, grabbed hands;
- T1-8 - turn left 180^0 and movement on the circle line, arms down, grabbed hands, returning to the places where they left from; on the last two times, the performers let go of hands and move to pairs;
- T1-2 - one of the performers raises her left arm and spins 360^0 under the arm, while the partner remains in place following the movement with the eyes, T3-4 - the same performer moves by stepping on her toes, in front of the partner, creating a small circle, then back from where she left, T5-8 - the same movements are performed by other partner;
- T1-8 - the performers, with the arms laterally down, grabbed hands, open the circle and move to point 1, forming a line (count from two to two);
- T1 - the numbers 1 return to the left while lifting their arms up, T2-3 - shearing arms in the sagittal plane, T4 - return, T5-8 – the same to the right; numbers 2 executes the same movements, but to the right;
- T1-8 – movement in sharp step and passing from the line in a row in column on four rows;
- T1-8 - the performers from the lateral rows turn 90^0 to the midline of the stage and execute the shear of the arms in the sagittal plane, then the same movement outwards the formation; the rows in the inside are on one knee, sitting on the heel (T1-2), slow lifting of the arms (T3-4), lower the arms forward (T5-6) and lift with the arms up forward (T7-8);
- T1-4 – the performers from the inner rows move in small steps toward the ones in the outer rows, clutch hands with them and execute a spin around them (at the departure of the performers from the inner rows, the ones from the outside move on the right knee facing the center of the stage) T5-8 – the exterior performers remain sitting on the right knee, and the others execute a spin around them and then move to the places where they left from;
- T1-2 - the performers from the exterior rows sit on the heel forwarding the left leg, bending the trunk forward and slowly putting the arms down, hands grasping the ankles,

T3-4 - raising the torso with the arms up, T5-8 - the same for the first four steps; meanwhile, the

The unfolding of the research:

The research was conducted within the school curriculum, with two hours of physical education per week, and not one hour per week, as the education framework plan stipulates. The modern dance group originally worked structures of simple exercises in tempo 2/4, after 6 weeks they increased the complexity and introduced in a number of 4 different sets. Also, regularly, there was intervened with elements from the classical ballet to achieve a suitable body poise.

performers from the interior rows make two 360^0 turns to the left and then right;
- T1-2 - all performers return on tiptoe with the arms up forward, rounded, T3-8 - out of the scene is in two columns in the points 4 and 6.

Following the implementation of the training program, there are noted significant improvements in particular to the control tests that have a direct relation with the specific content. Therefore, it is necessary to remember that the schoolgirls, have registered improved performances in the Tapping and Matorin tests.

The Tapping test. The value of the arithmetic average of the students group in the initial testing is 8.5, and in the final testing is 7.55, which represents an increase of 11.2%. The standard deviations for this test are $S_i = \pm 1,52$, respectively $S_f = \pm 0,98$
The coefficient of variation, through its values in the initial testing (Cv=18%) and the final testing (Cv=10%) indicates an increasing in the degree of homogeneity of the group, approaching a high level.
The analysis of the difference between the average obtained in the initial testing and the average obtained in the final testing showed a significant difference of "t" in the experiment with the value of 0.000234 to the significance threshold p <0.001.

Table 1 - Comparative results in the Tapping test (experiment group, initial testing - final testing)

Testing	Subjects	X	S	Cv	t	Threshold	Significance
Ti	20	8,5	1,52	0,18	0,000234	<0,001	Very significant
Tf	20	7,55	0,98	0,1			

The arithmetic average of the experimental group was higher than that of the control group, both in the initial testing and in the final testing. If, in the initial testing, the difference was 0.95 (8.65 in the experimental group compared to 7.7 in the control group), in the final testing, the difference increased to 0.1 (7.55 in the experimental group compared to 7,65 in the control group). Thus, there was a progress by 11.2% in the experimental group, compared to 0.6% in the control group.

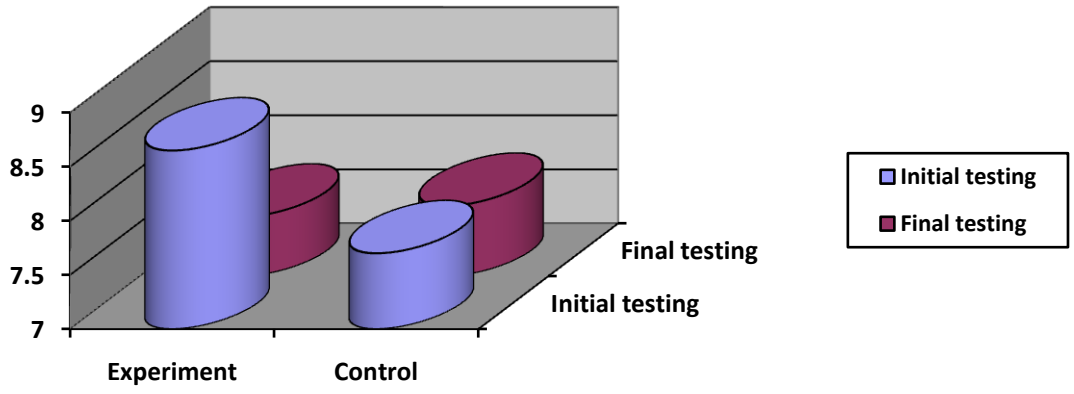

Figure 1. The comparative results (the experimental group - the control group) in the Tapping test, between the initial testing and the final testing

Table 2 - Cohen Index in the Tapping test (experiment group, initial testing, final testing)

	Tapping		
	X	d	Interpretation
Initial testing	8,5	0,74	High
Final testing	7,55		

The index d (Cohen) of the effect size (0.74) indicates a high effect, with a significant difference between the average levels between the initial testing and the final testing, in the Tapping test.

The Matorin test. The arithmetic value of the students group in the initial testing is 329.5 and in the final testing is 343.75, which represents an increase of 4.3%. The standard deviations for this test are $S_i = \pm 36{,}34$, respectively $S_f = \pm 44{,}3$. The coefficient of variation, through its values in the initial testing (Cv=11%) and the final testing (Cv=13%) shows a homogeneous group average and an insignificant decrease.

The analysis of the difference between the average obtained in the initial testing and that in the final testing showed a significant difference of "t", in the experiment having the value of 0.005574, in the significance threshold p <0.01.

Table 3 - Comparative results in the Matorin test (experiment group, initial testing, final testing)

Testing	Subjects	X	S	Cv	t	Threshold	Significance
Ti	20	329,5	36,34	0,11	0,005574	<0,05	Significant
Tf	20	343,75	44,3	0,13			

The arithmetic average of the experimental group was higher than that of the control group, both in the initial testing and in the final testing. If, in the initial testing, the difference was 37.5 (329.5 in the experimental group compared to 292 in the control group), in the final testing, the difference decreased to 35.5 (343.75 in the experimental group versus 308.25 in the control group). Thus, there has been a higher progress in the control group (5.5%) versus 4.3% in the experimental group.

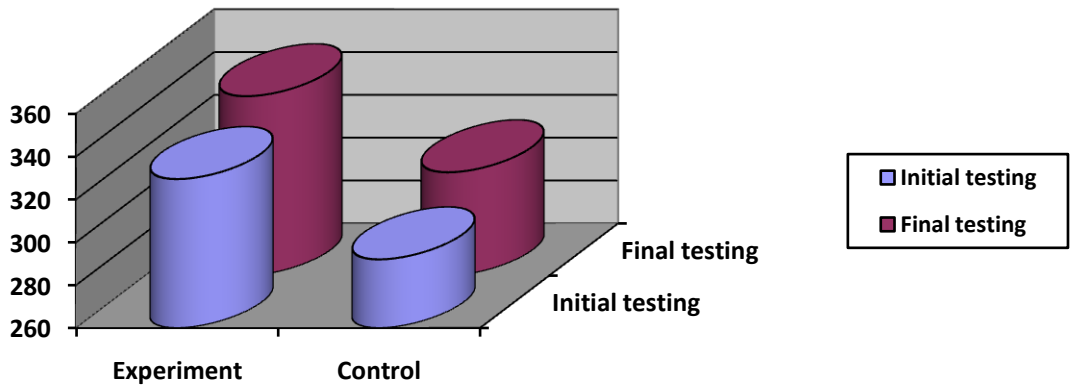

Figure 2. Comparative results (the experiment group - the control group) in the Matorin test, between the initial testing and the final testing

Table 4 - Cohen index in the Matorin test (experiment group, initial testing - final testing)

	Matorin		
	X	d	Interpretation
Initial testing	329,5	0,35	Moderate
Final testing	343,75		

The index d (Cohen) of the effect size (0.35) indicates a medium effect, with a less important difference between the average levels between the initial testing and the final testing, in the Matorin test.

Conclusions:

The analysis of the results from the two tests shows significant growth, improved individual performance, resulting in an improvement in the motric ability. We appreciate that, after experimenting the proposed training programs, there were improved both the motric ability of the female students, as well as, the quality of the motric memory through the emotional -volitional participation, which we can consider guarantor of the independent practicing of the physical exercise.

References:

[1]. Năstase ,V.D. (2011), *Sport Dance. The Methodology of the Performance*, Paralela 45 Publishing House, Bucharest.

[2]. Nanu, M., C., (2008), *Attractive Means Specific To Basic Gymnastics* Universitaria Publishing House, Craiova.

[3]. Cârstea, Gh., (2001), *Teaching Physical Education. Lecture Notes*, ANEFS Publishing House, Bucharest, p.9

[4]. Dragnea, A., et al. (2000), *The Theory of Physical Education and Sports*, Cartea Şcolii Publishing House, Bucharest, p.55