

## STUDY REGARDING THE INFLUENCE OF MOTION GAMES ON MOTRIC CAPACITIES IN PRE-SCHOOL EDUCATION LEVEL

DEACU MARCEL<sup>1</sup>

### Abstract

**Purpose.** The purpose of this research is to emphasize the efficiency of motion games on the evolution of pre-school pupils' motric capacities, within activities of personal development, respecting the demands of the new syllabus for premature education.

**Methods.** This paper aims to prove that certain approaching strategies of the instructive-educative process are efficient. In the respective process, motion games are promoted, having the purpose of strengthening and perfecting motric capacities of pre-school children, benefactors of this program within their kindergarten.

**Results.** Comparing the results obtained by the experimental group at the initial and final tests of this research, we can observe a positive evolution, significant for the assimilation level of the tested motric capacities (70,9% of the children obtained a VG grade at the initial test, at the final test, the percentage being 82,9%,).

**Conclusions.** As a result of the implementation of the systematic program for motion games within activities of personal development, the result obtained by the experimental group proved their positive influence. We can notice signs of strengthening children's motric capacities, a correction of the recorded mistakes at initial tests, and an evolution of their motric behaviour. Furthermore, one can clearly notice a harmonious physical development for pupils, as compared to the results obtained by the control group, where mandatory games were introduced, apart from the Physical Education activity existing in the syllabus for premature education. In addition to this, we have seen an improvement of inter-social relations, a better collaboration and a better group communication between children, and the development of the fair-play spirit.

**Key words:** Pre-school period, motric capacity, motion game

### Introduction

The preschool period is period of the most intensive responsiveness, mobility and mental capabilities, a period of remarkable progress in all areas. The child experiences the knowledge stage through the expansion of its contact with the social and cultural life, from which he/she assimilates models that enable and determine his/her ever active integration in the human condition (Gh. Tomşa, N. Oprescu, 2007).

The concept which states that the child is a whole has at its basis the accepted principle that all areas of growth and human development are interrelated. None of the aspects regarding human development does occur independently, and all skills, no matter how simple or complex should be, reflect the intertwining of abilities.

Motric skills are essential, but also specific components of different motric acts, which, if harmoniously combined, ensure the performance of certain motric tasks (M. Deacu, M. Finichiu, 2010).

The game is the most important source of learning for children, is an activity that helps them most and more effectively to learn. Through play children learn to interact with others, to explore the environment, to find solutions for problem situations, to express their emotions, acquire knowledge and skills that will be necessary for their adaptation to school requirements (M. Deacu, 2008).

The motion game is a physical exercise and a primary means of harmonious development of preschool children; it is primarily a bodily action, performed systematically and consciously in order to improve the physical development and motric skills.

The game is an ideal way of education and satisfies at the highest level, the need for movement and action. The game satisfies the child immediately, according to possibilities, their own desires, consciously and freely acting in the imaginary world he/she creates himself.

The psycho-motric field syllabus for pre-school education covers coordination and control of body motion, general mobility and physical strength, motric ability and elegant handling, as the elements, linked especially to human anatomy and physiology.

Activities through which pre-school children can be put in contact with this field are those which involve physical motion, competition between individuals and groups, concerning psycho-motric skills as objectives, as well as activities that can have as result a better resistance, strength or flexibility (St. Antonovici, 2010).

In the new early education syllabus it is mentioned to have a Physical Education activity per week, the teacher having the freedom to plan in the daily schedule complementary activities for the fulfillment of Physical Education objectives; at different times of day the teacher may propose to children different ways of competing, between two static activities (V. Tudor, 2005).

Psychological development is based on incorporations and creating new attitudes and behaviors, for the formation of increasingly complex adaptation tools and for the formation of satisfying modalities for certain needs, and formation of new needs and means of satisfying them.

Development involves changing the balance between assimilation of the reality and accommodation

<sup>1</sup>Physical Education and Sports Department, Petroleum - Gas University of Ploieşti, Romania

Email: marceldeacu@yahoo.com

Received 05.08.2011 / Accepted 18.10.2011

to the subjective and circumstantial, concrete conditions of life. In other words, development implies complex changes for the bio-psycho-social aspects of the individual, ranked in time.

Quantitative and qualitative transformations that define the development can be classified into three main categories, depending on the specifics of development: physical, mental and social. There are strong correlations between the types of development, but their evolution is relatively independent of each other.

#### **Purpose**

The purpose of this research is to emphasize the efficiency of motion games on the evolution of pre-school pupils' motric capacities, within activities of personal development, respecting the demands of the new syllabus for premature education.

For younger children, the physical, social, emotional, cognitive or language development is achieved at the same time, being inter-conditioned. Children learn holistically, so that every area of development affects the other, and none operates independently. Physical development may influence children's contribution to the achievement of various tasks or when attempting to obtain certain group performances, to which he/she belongs. The success or failure largely affects the child's self image and self-esteem.

#### **Research methods and procedures**

##### **Objective of research**

This paper aims to investigate the effectiveness of certain developed strategies of approaching the instructive-educative process, where motion games are promoted, in order to strengthen and improve the motric skills of preschool, benefactors of this process within the kindergarten.

##### **Subjects of research**

This research has been undertaken on a group of preschool children, aged 6 to 7, enrolled in a kindergarten. The syllabus for premature education mentions a compulsory Physical Education activity, done once a week within the psycho-motric field (30 – 35 min. for the second age level); the teacher has the possibility to plan various motion games in various moments of the daily program (for free-chosen activities, for transition activities and for activities of personal development).

Although groups are heterogenous, we have chosen for the experimental research, children aged 6 to 7, who have constantly frequented kindergarten for 3 years (the experimental group named within the kindergarten the "Group of Ladybugs", and a control group, named the "group of the Little Bears").

##### **Tests description**

Both groups were subjected to initial tests applied at the beginning of school year 2009 - 2010, we also recorded data regarding the physical development of children both at the beginning and the end of the experiment.

**TASK No. 1 *Applicative track*:** Walking on the tip of the toes – 10 m; running between poles – 15 m; walking in balance on the gymnastic bench; walking on

heels – 10 m; crawling on ell-bows and knees – 5 m; Walking in balance on a line – 10 m.

Evaluation:

- **VG** – performs the walk, the run between poles correctly, maintains balance and a correct body position, performs the crawling correctly.

- **G** – body position is incorrect while walking (head bent over, lifted shoulders), the lack of limbs coordination while running, losing balance 1 - 2 times during the exercise, lifting the torso or the head while crawling.

- **S** – lack of limbs coordination while walking, body swinging, touching the sole on the ground and an exaggerated motion of the arms while running; an incorrect position of the body while walking in balance, looking down, a lack of limbs coordination while crawling.

**TASK No. 2 *High jump*:** "Touch the balloon!"; **Long jump** : "Little frogs jump in the lake".

Evaluation:

- **VG** – performs both of the jumps correctly, following the stages;

- **G** – lack of control over the feet position in the air; incorrect landing (feet position);

- **S** – incorrect impetus or lack of it; incorrect landing (on the heels or with spread feet).

**TASK No. 3 *The relay*:** Throwing the ball at the target; carrying weight – 10 m; climbing on a leaned plan; slow run; throwing and catching the ball.

Evaluate:

- **VG** – performs the throwing correctly, hitting the target, carries the toy sack to the fixed point, pushes the chair, performs the throwing and the catching of the ball correctly;

- **G** – does not estimate correctly the distance and misses the target, the body position is incorrect while carrying the sack, does not throw the ball correctly (direction deviation);

- **S** – deviates the track of the ball away from the target, the body position is incorrect while carrying the sack (humped back, looking at the ground), the ball throwing is incorrect due to the rigid body position.

#### **Research results**

As a result, after the comparative analysis of the obtained data (the period 30 May – 05 June 2010), we have observed the following:

- Comparing the results obtained at task no. 1 by the experimental group at the beginning and at the end of the experiment, we may notice a positive evolution, significant for the level of assimilating the tested motric skills, (the Very Good mark was obtained by 70,9% of the children at the initial test, and at the final test the percentage was 82,9%, 3 children perfecting their level of motric skills assimilation); for the control group, only one child managed to improve the level of motric skills assimilation (from S to G).

- For task no. 2 the results obtained by experimental group emphasize a positive evolution,

significant for the level of assimilating the tested motric skills (18 children had the VG mark, 5 more than at the initial test, 1 of the children with S receiving the B mark); 16 children from the control group received VG (14 at the initial test), 3 children perfecting their level of motric skills assimilation (2 from G to VG, and 1 child from S to G);

- The results of the third task emphasize the following aspects for the experimental group: 3 children have perfected the tested motric skill (obtaining VG at the final test), and 2 children have

consolidated and corrected the tested motric skills (obtaining G at the final test); the results of the control group have recorded no significant progress (1 child managed to to improve the level of motric skills assimilation from S to G at the final test).

We will present a comparative recording of the data, differentiated for the two groups, the results of the initial test with those of the final test.

**Table 1:** Results obtained at the initial test – control group (the “Little Bears” group)

No.	Subjects	Age	Task 1	Task 2	Task 3
1.	A.E.F.	6 years	B	B	B
2.	A.A.	6 years	FB	FB	FB
3.	A.S.A	6 years	FB	FB	FB
4.	B.Ş.I	6 years	B	B	B
5.	C.A.	6 years	FB	FB	B
6.	C.A.M	6 years	FB	B	FB
7.	C.C.V.	6 years	FB	FB	FB
8.	C.C.G.	6 years	FB	FB	FB
9.	D.I.B	6 years	B	B	B
10.	D.S.	6 years	FB	FB	FB
11.	D.A.N	6 years	FB	FB	FB
12.	D.V.	6 years	FB	FB	FB
13.	E.D.A.	6 years	FB	FB	B
14.	E.C.E	6 years	FB	B	B
15.	I.M.	6 years	S	S	S
16.	I.A.E	6 years	S	S	S
17.	J.M.C	6 years	FB	FB	FB
18.	M.I.A	6 years	FB	FB	B
19.	M.P.C.	6 years	B	B	S
20.	N.R.F..	6 years	FB	FB	FB
21.	P.C.M	7 years	FB	FB	FB
22.	S..P.T.I	6 years	FB	FB	B
23.	S.D.M	6 years	S	S	S
24.	T.R.M..	6 years	FB	B	FB

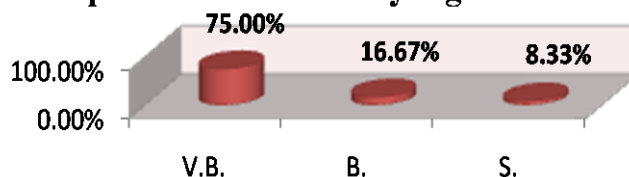
The subjects of the control group recorded after the application of the initial tests the following results: for task 1, 17 children (70,83%) obtained VG; 4 children (16,66%) obtained G; 3 children (12,5%) obtained S; task 2, 14 children (58,34%) obtained VG, 7 (29,16%) obtained G, 4 children (12,5%) obtained S; task 3, 13 children (54,16%) obtained VG, 8 children (33,34%) au obținut calificativul G, 3 children (12,5%) obtained S.

**Table 2:** Results obtained at the initial test – experimental group (“group of Ladybugs”)

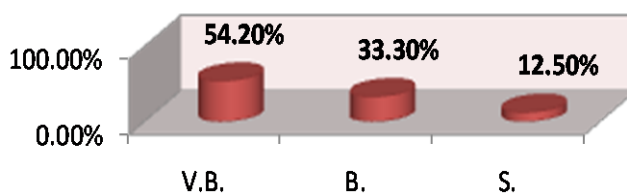
No.	Subjects	Age	Task 1	Task 2	Task 3
1.	A.B.M.	6 years	FB	FB	B
2.	A.Ş.	6 years	B	B	FB
3.	C.M.E.	6 years	B	S	B
4.	C.L.V.	6 years	FB	FB	FB
5.	C.C.I.	6 years	FB	FB	FB
6.	D.B.A.	6 years	FB	FB	FB
7.	.F.C.	6 years	FB	B	FB
8.	G.D.C.	6 years	B	B	B
9.	G.B.A.	6 years	FB	FB	B
10.	I.E.A.	6 years	FB	B	FB
11.	I.M.R.	6 years	FB	FB	FB
12.	M.I.G.	6 years	FB	FB	FB
13.	M.M.S.	6 years	FB	B	B
14.	N.A.I.	6 years	FB	FB	S
15.	P.T.M.	6 years	S	S	S
16.	P.C.A.	6 years	S	S	FB
17.	P.E.	6 years	FB	B	B
18.	S.D.M.	6 years	FB	FB	B
19.	S.D.A..	6 years	FB	B	FB
20.	S.D.F.	7 years	FB	FB	FB
21.	T.M.	6 years	FB	FB	FB
22.	T.M.	6 years	FB	FB	FB
23.	U.A.M.	6 years	FB	B	FB
24.	D.A.G.	6 years	B	FB	FB

The subjects of the control group recorded after the application task 1 obtained the following results: 18 children (75%) obtained VG; 4 children (16,6%) obtained G; 2 children (8,33%) obtained S; task 2 had the following results: 13 children (54,2%) obtained VG; 8 children (33,3%) obtained G; 3 children (12,5%) obtained S; task 3 had the following results: 15 children (66,6% ) obtained VG; 7 children (25%) obtained G, and 2 children (8,33%) obtained S.

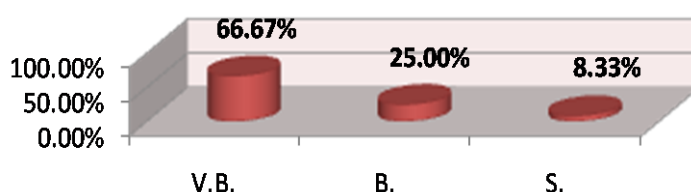
**Graph1: Marks for "Ladybugs" - Task No. 1**



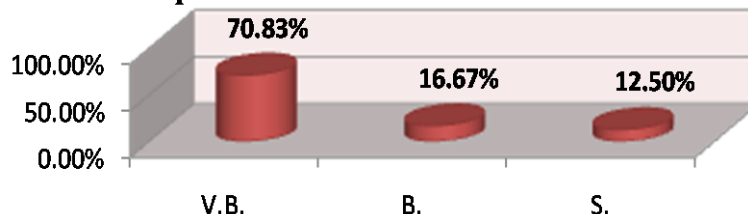
**Graph 2: Marks for "Ladybugs" - Task No. 2**



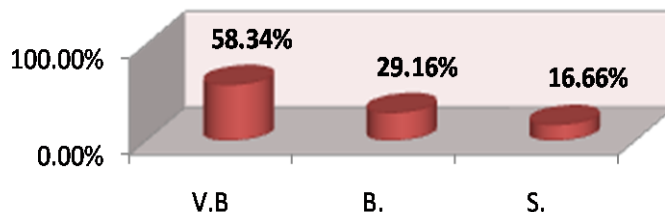
**Graph 3: Marks for "Ladybugs" - Task No. 3**



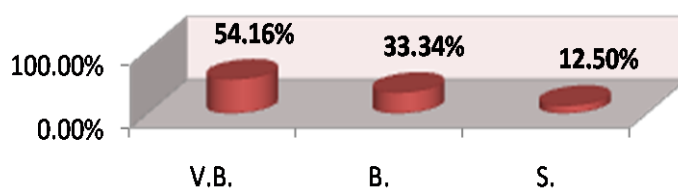
**Graph 4: Marks for "Little Bears" - Task No. 1**



**Graph 5: Marks for "Little Bears" - Task No. 2**



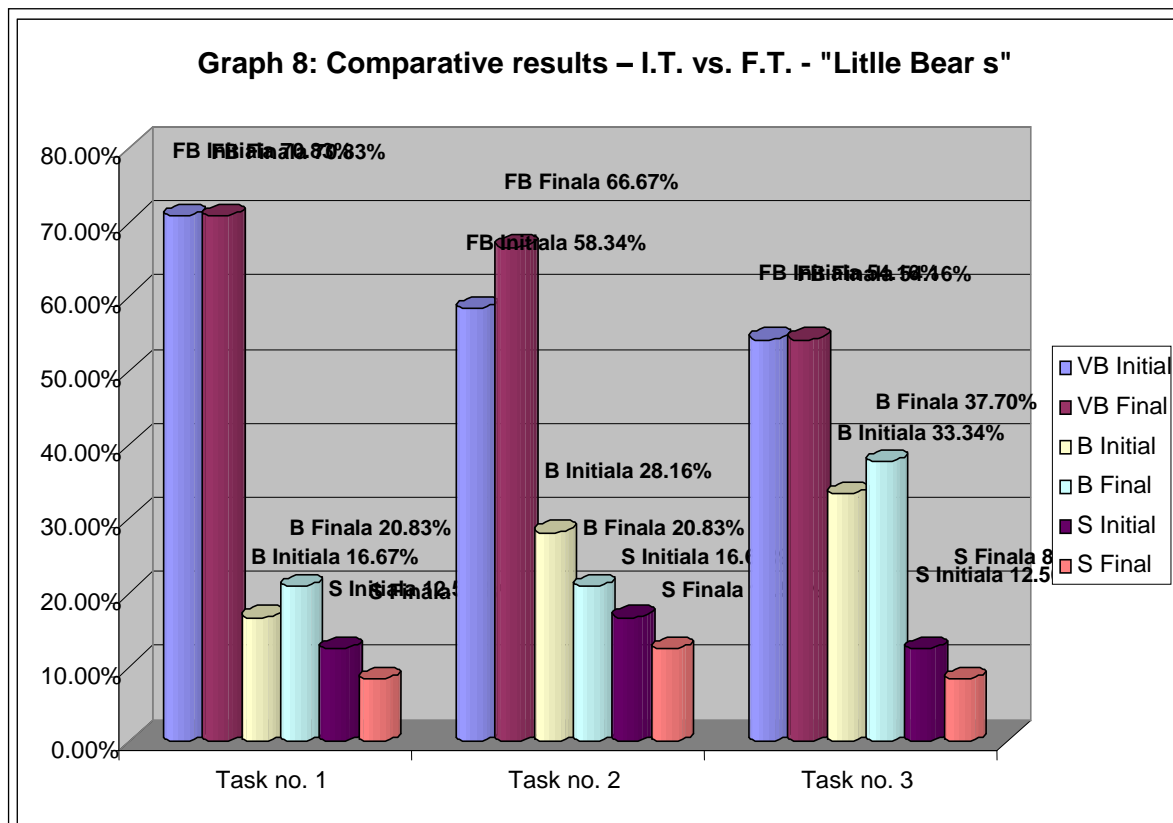
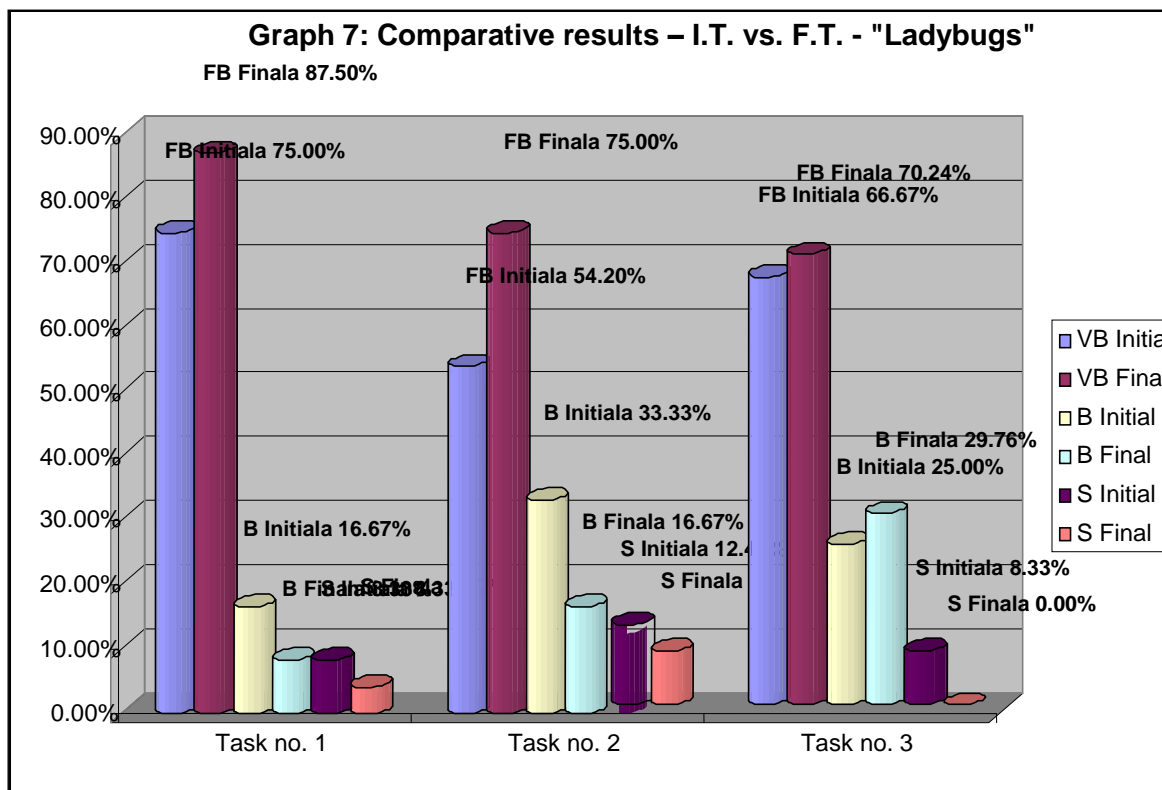
**Graph 6: Marks for "Little Bears" - Task No. 3**



After the results analysis we established an annual planification for the Physical Education activity (1 activity/week), common for both of the groups.

For the experimental group, we have elaborated a different program of motion games, program applied in the stage of personal development activities (PDA),

developed during the period 1 October 2009 – 15 May 2010. Through the exercise and consolidation of motric skills and abilities, basic and utilitarian, in the conditions of their concrete application, we aimed to, along with their correction and improvement also to have the enlargement of the motric experience.



Results interpretation. As a result, after the comparative analysis of the obtained data (the period 30 May – 05 June 2010), we have observed the following:

Comparing the results obtained at task no. 1 by the experimental group at the beginning and at the end of the experiment, we may notice a positive evolution, significant for the level of assimilating the tested motric skills, (the Very Good mark was obtained by 70,9% of the children at the initial test, and at the final test the percentage was 82,9%, 3 children perfecting their level of motric skills assimilation); for the control group, only one child managed to improve the level of motric skills assimilation (from S to G).

- For task no. 2 the results obtained by experimental group emphasize a positive evolution, significant for the level of assimilating the tested motric skills (18 children had the VG mark, 5 more than at the initial test, 1 of the 3 children with S receiving the B mark); 16 children from the control group received VG (14 at the initial test), 3 children perfecting their level of motric skills assimilation (2 from G to VG, and 1 child from S to G);

- The results of the third task emphasize the following aspects for the experimental group: 3 children have perfected the tested motric skill (obtaining VG at the final test), and 2 children have consolidated and corrected the tested motric skills (obtaining G at the final test); the results of the control group have recorded no significant progress (1 child managed to improve the level of motric skills assimilation from S to G at the final test).

### Conclusions

Starting from the need to move of the preschool child, the need to alternate the static and dynamic activities, and to respect the differences in age and

individual, we believe that using motion games in various stages of the day may influence the consolidation and improvement of motric skills. In the same time, passing from one activity to another is made enjoyable for children, aiming to fulfill the proposed objectives.

The data obtained after the implementation of the initial evaluation, proves that, at the beginning of the school year 2009/2010, the level of ownership of motric skills of children from both groups is almost the same, with insignificant differences.

After applying a systematic program of motion games within activities of personal development, the results obtained by the experimental group certify their positive influence.

### References

- ANTONOVICI, ȘT., 2010**, *Physical Education in kindergarten*, Didactica Publishing House, Romania, 120-125
- DEACU, M., FINICHIU, M., 2010**, *The management of Physical Education and Sports lessons*, University Publishing House, Romania, 170-174
- DEACU, M., 2008**, *Development of motion qualities combined "force-speed" and „speed-force" through sportive games in the university class of Physical Education*, Ph.D. Thesis, Bucharest, I.O.S.U.D. A.N.E.F.S., 180-190.
- TOMȘA, GH., OPRESCU, N., 2007**, *Theoretic bases of preschool psycho-pedagogy*, Publishing V&I Integral, Romania, 58.
- TUDOR, V., 2005**, *Measurement and evaluation in physical culture and sports*, Publishing Alpha, Romania, 106-114.