

STUDY REGARDING THE ROLE OF THRESHOLDS AND MOTION GAMES IN EDUCATING THE MOBILITY AND SPRINGINESS OF THE PRIMARY SCHOOL STUDENTS

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Abstract: *Organised practicing of physical exercises plays a positive role on growing and development of the children.*

The students' interest for the motion games and applied routes is bigger during the primary school. Their willing to exercise the physical effort has physiological roots. That's why any diminishing or limitation of their motrical activities have a great impact on the vital functions of the body.

The threshold and motion games contribute to the multi-development of the students, enlarging their own representation sphere about everything around them, educating their ethic and intellectual attributes, perfecting their motrical abilities.

This study aims to verify the hypothesis on which the threshold and motion games in the physical education lesson for the primary school students can positively affect the education of their mobility and springiness. Study was conducted on 25, 3rd grade students, each 9-10y.o., from two schools from Bacău, during November 2016 – May 2017. As research methods, the observational, testing and mathematical analysis were used.

The results validate, on one hand, the study hypothesis, and, on the other side, lead to the conviction that motion and threshold games are basic methods in the primary school, physical education lesson

Keywords: *motrical abilities, springiness, mobility, students, lesson, physical education.*

1. Introduction

Organized practicing of physical exercises plays a positive role on teenager growing and development. Many scientists were precisely elucidating, based on lengthy experiments, the

multiple aspects of body state on scholars and the effects of physical exercises practicing [3], [8], [10].

Generally speaking, on scholars, the ways of physical education and sport are adapted to their age specifics, being associated with hygiene conditions,

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proper eating and lifestyle [4], [6].

The interest of students for movement games and applied tracks is very big during the primary school. Their aim to exercise the physical effort has physiological needs at its base, so each attempt to diminish or limit their motrical activity has repercussions on vital body functions [1], [2].

The relay races and movement games contribute to multifold development of the scholars, enlarging the sphere of their own representations about everything around them, educate their moral and intellectual attributes and also improve their motrical skills [9], [11]. The students acquire great satisfaction after common races done the effort implied and the fame obtained. Playing gives joy and happiness.

Organising and operating the games and relay races demands a good technical and pedagogical knowledge for those who lead them [5].

2. Objectives

This study aimed at:

- evaluating the level of training of mobility and springiness for 3rd grade students
- structuring the scheduling and operating structures
- recording the manifestation level after the application of operating and scheduling systems
- observing and recording the evolution of the result acquired by the students and also processing and analysing of the data

In this paper we aim to validate the hypothesis on which the relay races and movement games in the physical education lesson for the primary schools

students can positively affect the mobility and springiness education.

The validation of the acquired results was done by the mean of Student test for independent samples, which, in our opinion is the most probative for explaining the differences noticed by us during the experiment.

3. Material and Methods

The study was done on 28 students having 9-10 years old, from the "Alec Russo" school in Bacau.

The subjects were splitted in two groups, the control and experimental group. It was taken into account the need for similar motrical attributes, to obtain self-evident values.

The whole experiment was done in the Alec Russo school unit. The movement games were done on the school's sport yard when the weather was favourable, and in the classroom when not.

The study was conducted during November, 2016 – March, 2017.

The following research methods [7] were used:

- the references study
- the observation method
- the experiment method
- the data processing method
- the plotting data method

The tests used for measuring the mobility and springiness were:

[T1]. Standing away, circular moving of the ball to the left and to the right around the waist. Time for execution: 30s. Number of execution is recorded.

[T2]. Decumbent, the ball kept at the feet level, lifting the legs beyond the head, taking the ball both hands and bringing it above head with both arms wide open. Lifting the body and taking the ball to the

initial position. Time for execution: 1min.

Number of executions is recorded.

[T3]. Bridge with low start, keeping the legs and arms stretched, 2 repetitions measuring the distance between heels and palms. The average of both values is recorded.

[T4]. Standing transversal on the gymnastic bench, bending the body forward, with the arms aiming at the ground, on the edge of a 50cm ruler, having the 0 at the bench level. The distance of the fingers from the bench is recorded.

The tests were done in the second part of the lesson, before the last link.

4. Results and Discussions

The results obtained by the control group are shown in tables 1-2, and for the experimental group in tables 3 and 4.

Table 1
Initial testing results – cont. group

No. crt.	Name	[T1]	[T2]	[T3] (cm)	[T4] (cm)
1	A.A	3	7	65	5
2	B.M	4	7	67	5
3	C.C	3	7	61	4
4	C.A	4	8	64	5
5	C.D	4	7	66	4
6	C.M.	4	7	63	5
7	D.S.	3	6	64	6
8	D.A.	4	8	65	4
9	D.F	4	7	62	4
10	F.C.	3	6	64	5
11	M.E.	5	7	61	4
12	O.C.	4	6	67	4
13	P.I.	3	7	64	5
14	V.M.	3	6	65	4
Group average		3,64	6,85	64,14	4,57

Table 2
Final testing results – cont. group

Nr. crt.	Name	[T1]	[T2]	[T3] (cm)	[T4] (cm)
1	A.A	4	8	64	6
2	B.M	4	7	65	5
3	C.C	4	7	61	5
4	C.A	5	8	62	5
5	C.D	4	7	63	4
6	C.M.	4	7	62	5
7	D.S.	4	7	64	6
8	D.A.	4	8	63	4
9	D.F	5	7	61	5
10	F.C.	4	7	63	5
11	M.E.	5	7	61	4
12	O.C.	4	6	66	6
13	P.I.	3	7	63	5
14	V.M.	4	7	64	4
Group average		4,14	7,14	63,00	4,92

Table 3
Initial testing results – exp. group

Nr. crt.	Name	[T1]	[T2]	[T3] (cm)	[T4] (cm)
1	B.A	4	7	66	4
2	B.S	4	8	65	5
3	D.A	4	6	65	5
4	E.C	5	7	62	6
5	E.M	3	8	64	4
6	E.Ş	4	7	63	4
7	G.I	4	6	64	5
8	G.N	3	7	66	4
9	L.M	3	7	62	4
10	O.R	4	7	63	4
11	P.I.	4	7	62	5
12	P.G	3	6	68	4
13	Ş.T	4	7	63	4
14	S.A	3	7	64	5
Group average		3,71	6,92	64,07	4,78

The Student test for independent samples assuming unequal variances for the initial test is shown in table 5.

Table 4
Final testing results – exp. group

Nr. crt.	Name	[T1]	[T2]	[T3] (cm)	[T4] (cm)
1	B.A	7	10	43	6
2	B.S	7	11	46	7
3	D.A	6	8	44	7
4	E.C	8	9	45	8
5	E.M	4	9	44	6
6	E.Ş	6	8	47	7
7	G.I	6	8	44	6
8	G.N	5	10	42	7
9	L.M	5	9	45	6
10	O.R	4	8	46	7
11	P.I.	5	9	45	7
12	P.G	4	8	42	6
13	Ş.T	4	9	44	6
14	S.A	4	8	44	7
Group average		5,35	8,85	44,35	7,14

Table 5
Student test – initial testing
(confidence level 95%)

Test	t(26)	p
T1	-0,304	p = 0,76
T2	-0,295	p = 0,77
T3	0,102	p = 0,92
T4	0,291	p = 0,77

The Student test shows, for all four tests, that no statistical difference exists, which basically confirms that both groups, in initial stage, are part of the same statistical population.

For the final stage of the experiment, the Student test is shown on table 6.

Table 6
Student test – final testing
(confidence level 95%)

Test	t(26)	p
T1	-3,157	0,006
T2	7,989	0,000
T3	33,250	0,000
T4	-6,637	0,000

The Student test shows that there are significant statistical differences between groups, in other words the results acquired by the experimental group are a consequence of our proposed acting systems, namely movement games and relay races.

Analysing the data shown in tables 1-6 and their respective plots, one can notice major changes regarding the mobility and springiness for the subjects. The students from experimental; group show values in the favor of springiness evolving, in contrast with the students from the control group.

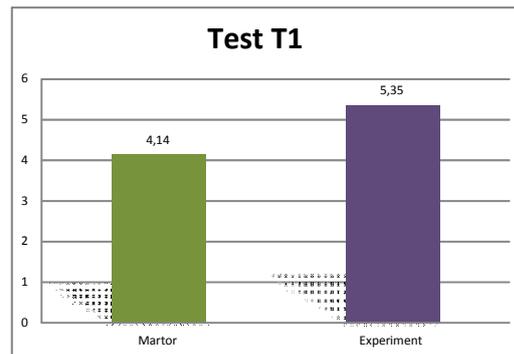


Fig. 1. Results obtained - test T1

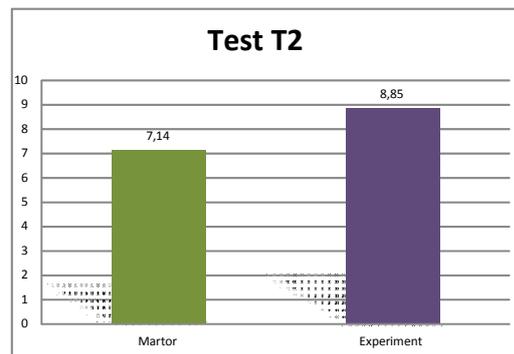


Fig. 2. Results obtained - test T2

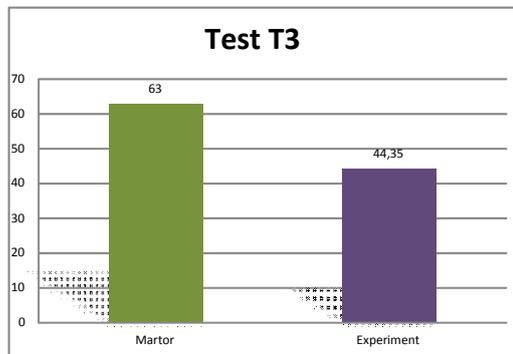


Fig. 3. Results obtained - test T3

In this case, the percent of mobility and springiness progress from the experimental group is significantly better than the control group students.

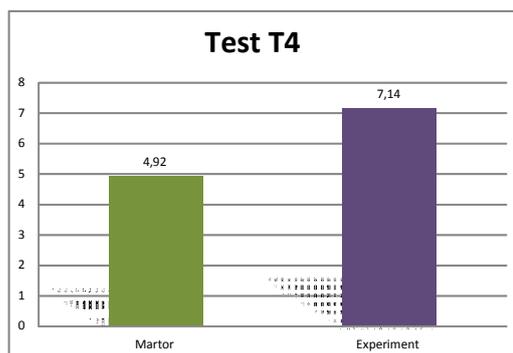


Fig. 4. Results obtained - test T4

It worths noting that the most significant test from those 4 applied is the test 3, which shows us a bigger percent of evolution than the others, which denotes that the mobility and springiness of the students is better trained at this age, in the primary school.

This shows us that the mobility and springiness are trained slowly, in a prolonged time, through continous practicing.

The mobility and springiness is educated faster for the girls than the boys at the same age.

By movement games and relay races, the children are filled with winning euphoria, those exercises being nothing more than a way for them to excel, and not just heavy work.

The group / partner – based exercises had a maximum efficiency, the student aiming to surpass his mate.

The mobility and springiness exercises were enthusiastically embraced by the scholars and were very good assimilated in the context of movement games and relay races.

We must observe that in the last 2 weeks of the experiment, the mobility and springiness indices grew up explosively.

During relay races the other motrical attributes were also used, but the focus was on mobility and springiness training.

5. Conclusions

Functional indices for the primary school students allow us to analyze and render at a certain degree the understanding of the phenomena of applying the relaying races and movement games to train the mobility and springiness.

During the physical education lessons, the assimilation reactions for the notion of mobility and springiness from the students are dominated by age particularities and the algorithms used to reach the proposed goals.

When the themes involved in practicing games is properly chosen, the used exercises have to be adapted to obtain a high degree of efficiency.

The indices which define the mobility and springiness are growing fast during the motrical activities.

Systematic practicing of relay races and movement games during the physical education lessons for the primary school students assure a morphological, functional and motrical evolvement in a relatively short period.

The diversity of games for the primary school students has to match their age particularities and functional indices, to favour a certain mood from the participant.

From a motrical point of view, the mobility and elasticity of the primary school students are a stimulus to approach the physical education lesson more easily and with a good availability.

It is mandatory for us to use during these movement games and really races structures of exercises well known by the students, to reach the proposed goals.

The variety of themes for movement games and really races has to have an inter-disciplinary prevailing.

In movement games and really races shown here, we can notice that, at the student level, the mobility and springiness improvement can be obtained using a certain complexity and diversity of the exercises. The mobility and springiness are improving faster when students are involved in attractive movement games, and the difficulty level of the exercises has to be easily and good grace accepted. The motivation for a primary school student to actively participate in this kind of exercises has to be done bearing in mind the idea of inciting the pleasure feeling of the game.

In consequence, for each motrical attribute or its manifestation, one has to select according with the age and gender only those exercises, methods or procedures which prove optimal and efficient.

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