

Fig.1. Graphical representation of arithmetical values of probes at the tests

In the graphical representation can be observed that, at the initial tests at all probes, the students from medicine had almost identical values, and at the final tests they showed variations, but almost the same, identical values. The most significant improvement was found in the test aiming the strength of dorsal muscles at the stomatology.

Conclusions

Following the development of research by referring the studied motric qualities, namely the segmental force and the speed by power mode, as a result of execution of specific programs of this discipline (physical education) we found both, progress and easy regresses. Improvements were made in strengthening the dorsal muscles and at the combined quality at the longjump probes.

Targeting the abdominal muscles by analyzing the results, it recorded a fall of its level, as well as the extension.

One of the findings relates at the motric potential of the participating students at this approach of research, by applying a series of tests, the following conclusion is detached: in the university education we should put a bigger accent on the differential practice of motric activities in physical education, in order to, any student can participate and practice more forms of motricity of physical exercises, for a harmonious and better general physical improvement, or a different branch of sport, according to their physical condition or preferences.

The motric activity is made of the overall of motric actions, structured for a functional and organizational requirement, specific for physical education and sports.

The motric qualities has interconditionality relations, has elements of characterization, it is based on mobilizing the energetic reserves, and their evaluation allows the goals of physical training and physical condition, and they are the components of motric capacities, systemized on deep and clear criterias.

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EXPERIMENTAL STUDY ON IMPROVING EXPANSION BY MEANS OF PARKOUR TO STUDENTS IN THE 8TH GRADE

Abstract:

1. This paper is based on a study regarding the improvement of expansion to students in the 8th grade, who practice parkour as an extra curriculum activity. It is a "natural method of training the body", a sport that allows exploiting the potential of the human body. Parkour is based on an efficient, rational, continuous, straight, over, under, around and through obstacles movement. Values of arithmetic mean registered by the research sample for expansion shows an improvement of 0,08m, with the values of 2,44m at initial testing and 2,52m for the final one. The "t" test shows significant statistical differences between the two steps ($t=3,25$; $p<0,01$), so a progress was registered. The means used by parkour confirm the effectiveness of this type of movement practiced in urban areas which can be an important starting point in teaching students in 8th grade to improve expansion and other motric skills.

Key words: parkour, expansion, students.

The actuality of the subject

Parkour is a sport activity with the purpose of moving from one place to another, as efficient and fast as possible, using the physical and psychiatric qualities of the human body (C. Brunner, 2011, S. O'Brien, 201, J. L. Rotawisky, 2013, etc.). It is used to overpass artificial or natural obstacles from the environment (fences, stones, walls, bars, pillars, railings, trees, stairs, etc.). Parkour can be practiced in cities as well as in villages. This art movement does not require specific facilities or equipment. It is an accessible athletic discipline because it combines all basic motor skills (walking, running, grip, jump) with the applicative tools: (climbing – escalating, traction and thrust, balance, pulling) environment using whatever time and situation.

"Parkour (abbreviated PK) is a discipline that helps you get over any obstacle by finding the most efficient and fastest way to get from point A to point B using only your own body means" (<http://ro.wikipedia.org/wiki/Parkour>).

The practitioners of this discipline are called tracers. The term comes from the verb "tracer" which in French slang language means "escape", to escape or get somewhere fast running, to rush, etc. They consider this kind of training a freedom without regulations imposed by other sports and to overcome one's own limits.

The aim of parkour is for the practitioner to adjust his movement to any obstacle. Parkour is an inspired discipline by the human body. It focuses on efficient movement, rational, continuous, forward, over, under, around and through obstacles.

Work hypothesis:

Starting from the premise that promoting interdisciplinary in school constitutes an element of progress and knowledge, **extracurricular activity and practicing parkour's use specific movements** can help improve 8th grade students' expansion.

The aim is to improve expansion of 8th grade students engaged in extracurricular activity of parkour.

Research methods used in this study were: bibliography study method, observation teaching method, somatic method (weight, height), statistical and mathematical method, graphic and tabular method.

Subjects: The exploratory study was conducted with the participation of 12 students (boys) from School No. 10 of Tecuci City, Galati County. Subjects were students aged between 14-15 from urban area, clinically healthy, who have expressed at the beginning of the school year 2014-2015 the option to be initiated into the practice of parkour (in extracurricular activities).

Organize and conduct research:

Taking into consideration that parkour is a new discipline and isn't in the curriculum, the practicing took place in the extra curriculum activity. There were used specific means of parkour that were included in the preparation (two times per week or daily). Preparation was accessible, a daily space being used by respecting of course the principle: from easy to difficult, from simple to complex. We mention that the activity was interrupted during school vacations and holidays. Specific means of parkour that have

contributed to improving the expansion of students are: jumping cat-leap, Muscle Up, Jumping precision rollers (King-kong, Speed Vault, Dash Vault, Lazy Vault, Underbar Vault, Tic-Tac Vault).

Conducting the study program was observed through the following tasks and stages of research: studying and exploitation of specialized documents, initial testing of students (date 21.09.2014), conduct a survey, selecting the necessary means researched theme, final testing of students (date 20.05. 2015), processing and exploitation of data from tests, highlighting methodological and practical conclusions and recommendations.

Research results:

To accomplish the tasks proposed for the experimental study on improving expansion through parkour means to eighth graders - the two tests were conducted initially and finally.

Statistically analysis and interpretation of data for each test was performed using Statistical Usable tutorial coordinated by Jeff Sauro (<http://www.usablestats.com/calcs/2samplet>). Descriptive analysis of anthropometric parameters measured, the arithmetic mean (M) and standard deviation (SD) for the two trials of the research were summarized in table 1.1-1.3.

The result of the arithmetic mean at the anthropometric initial testing is for the weight of 54.08 kg respectively 54.83 the final one. Values emphasize that this varies accordingly to each one's diet; the difference between averages is 0.75.

Table 1.1 statistical results for measuring students' weight

	N	Mean	StDev	SE Mean
TI	12	54.08	11.8	3.22
TF	12	54.83	11.08	3.2

Legend : TI = Initial testing
TF= Final testing

Observed difference (TI - TF): -0.75

Standard Deviation of Difference : 4.5449

Unequal Variances

DF : 21

95% Confidence Interval for the Difference (-10.2016 , 8.7016)

T-Value -0.165

Population 1 ≠ Population 2: P-Value = 0.8706

Population 1 < Population 2: P-Value = 0.5647

Population 1 > Population 2: P-Value = 0.4353

Equal Variances

Pooled Standard Deviation: 11.1327

Pooled DF: 22

95% Confidence Interval for the Difference (-10.1757 , 8.6757)

T-Value -0.165

Population 1 ≠ Population 2: P-Value = 0.8704

Population 1 < Population 2: P-Value = 0.5648

Population 1 > Population 2: P-Value = 0.4352

The values of arithmetic average height for initial testing is 1.67 and for the final 1.68, with a difference of 0.01. (Table 1.2)

Table 1.2 Statistical results for measuring students' height

	N	Mean	StDev	SE Mean
TI	12	1.674	0.0592	0.017
TF	12	1.683	0.0597	0.017

Legend : TI = Initial testing
TF= Final testing

Observed difference (TI – TF): -0.009

Standard Deviation of Difference : 0.0243

Unequal Variances

DF : 21

95% Confidence Interval for the Difference (-0.0595 , 0.0415)

T-Value -0.3704

Population 1 ≠ Population 2: P-Value = 0.7148

Population 1 < Population 2: P-Value = 0.6426

Population 1 > Population 2: P-Value = 0.3574

Equal Variances

Pooled Standard Deviation: 0.0595

Pooled DF: 22

95% Confidence Interval for the Difference (-0.0594 , 0.0414)

T-Value -0.3705

Population 1 ≠ Population 2: P-Value = 0.7146

Population 1 < Population 2: P-Value = 0.6427

Population 1 > Population 2: P-Value = 0.3573

Table 1.3 Statistical results for measuring students' expansion

	N	Mean	StDev	SE Mean
TI	12	2.444	0.065	0.019
TF	12	2.528	0.0612	0.018

Legend : TI = Initial testing

TF= Final testing

Observed difference (TI - TF): -0.084

Standard Deviation of Difference : 0.0258

Unequal Variances

DF : 21

95% Confidence Interval for the Difference (-0.1377 , -0.0303)

T-Value -3.2558

Population 1 ≠ Population 2: P-Value = 0.0038

Population 1 < Population 2: P-Value = 0.9981

Population 1 > Population 2: P-Value = 0.0019

Equal Variances

Pooled Standard Deviation: 0.0631

Pooled DF: 22

95% Confidence Interval for the Difference (-0.1375 , -0.0305)

T-Value -3.2608

Population 1 ≠ Population 2: P-Value = 0.0036

Population 1 < Population 2: P-Value = 0.9982

Population 1 > Population 2: P-Value = 0.0018

The differences of the arithmetic mean are recorded at expansion testing (jump up high), where there is an improvement of 0.08m, values are 2,44m for initial and 2,52m for final testing. The values of the mean confirm the progress and so the efficiency of specific parkour movements used during research. The “t” test shows a value of 3.25, which means a significant difference between two steps (t=3,25; p<0,01).

Dynamics for average in the initial and final testing obtained after using parkour means is represented in figure 1.1

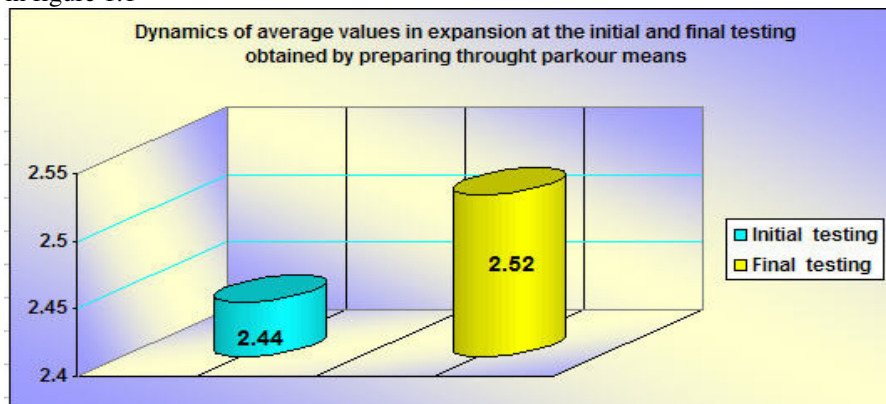


Figure 1.1 Dynamics of average values on expansion at initial and final testing

We can see from the data previously interpreted that each of the 12 students who participated in this experimental study, were able to improve their expansion using parkour drills and exercises.

Conclusions:

1. Use specific parkour movements, proved that they can be applied to students of 8th grade to improve expansion and so the research hypothesis was confirmed.
2. Values of arithmetic mean registered by the research sample for expansion shows an improvement of 0,08m, with the values of 2,44m at initial testing and 2,52m for the final one. The “t” test shows significant statistical differences between the two steps ($t=3,25$; $p<0,01$), so a progress was registered.
3. The means used by parkour confirm the effectiveness of this type of movement practiced in urban areas which can be an important starting point in teaching students in 8th grade to improve expansion and other motric skills.
4. Specific parkour moves that can help improve students' expansion are: jumping cat-leap, Muscle up, precision jumps, rollers (King-kong, Speed Vault, Vault Dash, Lazy Vault, Vault Underbar, Tic-Tac Vault).

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PHYSICAL EDUCATION AND SPORT IN THE DEVELOPMENT OF THE PERSONALITY CHARACTERISTICS

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