

**STATISTICAL STUDY ON CORRELATION BETWEEN MAIN  
MORPHO-FUNCTIONAL INDICATORS AND  
MANIFESTATION OF MOTOR CAPACITIES OF SCHOOL  
CLASS I**

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**Keywords: motor capacity, morpho-functional indicators, correlation**

**Abstract:** A normal, healthy development, enhances good mood, strength of work, attention; promotes the ability to assimilate knowledge, acquire driving skills; develops motoring qualities. All the exercises and games selected in this work aim, in addition to lightening the body and strengthening health; the harmonious development of all muscle groups, the prevention of the localization of vicious attitudes, the increase of intellectual capacity, the morpho-functional indices, the creation of good disposition. I proposed that, first and foremost, starting from the knowledge of children in all aspects, what will allow me to realize not only a mere adequacy of the instructive-educational activity at the level already achieved in their motor development but to be able intervene in the process of motor development, stimulating positive features and reorienting the negative ones, depending on the bio-psycho-motor potential of each child.

**Introduction:**

With a well-designed and executed physical education program, with a rigorous choice of methods and means, we can raise to the highest level the child's physical and mental capacity, avoiding the illnesses and crystallizing the qualities of a well-developed individual: suppleness, skill, spontaneity, skill, agility. Therefore, during this research I have proposed to emphasize the well-performing effects of physical exercises, dynamic games, application paths and selected ranks, in order to provide children with growth and development harmonious (the main tasks of the physical education lesson); allowing for a diverse and simultaneous manifestation of driving habits useful to life, motor skills, and psychic processes. Since the young school-age pupil is active, willing to move, ready to run, jump, climb, play with the rope at any time; teachers have

to be the ones who guide them and satisfy them in the most pleasant way the need for movement.

The judiciously selected means, according to the psycho-individual age specifics, hope to be received by the children with pleasure, as they train all muscle groups in their execution, contribute to the development of the locomotor system, the respiratory apparatus and the circulatory system; favoring growth and a harmonious development.

**Material-method:**

I will further characterize the group of subjects subject to research, made up of 18 children, from the point of view of biological, psychological and social evolution during the period 01.10.2011 – 30.05.2012. The subjects belong to class I a, from Dolhasca Primary School, and are represented by 6 girls indicating 33.33% and 12 boys respectively 66.66%. Studying the medical records of the children of the investigated group and making together with the medical staff from the dispensary the functional investigations and the somatoscopic examination were as follows:

A. In terms of health, all 18 children (100%) are clinically healthy, going through childhood-specific illnesses without having to stay with sequelae.

B. After the somatoscopic examination in the dorsal and sagittal plane, it was found:

- b1) Dorsal: - 17 children representing 94.44% have normal backbone;
  - One child representing 5.55% has a bent backward curved spine
- b2) Sagittal: - 18 children respectively 100% have normal backbone.

Because the main feature of the child's body is the ability to grow and develop harmoniously, I have judged judgments about exercises and games that correct the attitudes of children with deficient attitudes. In parallel, we considered that, through the driving activities, the muscular groups involved in keeping the right outfit should also develop accordingly.

Depending on the soft tissues, the physical development of the subjects is the following:

- normosomi                    15 children representing 83,33%
- hipersomi                    1 children representing 5,55%
- hiposomi                    2 children representing 11,11%

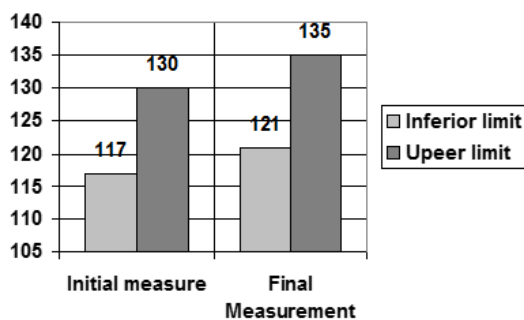
Following the anthropometric measurements (tables recorded during the period 01.10.2016 – 30.05.2017 at height, body mass, thorax perimeter) the situation is so:

- 3 children representing 16,66% are tall;
- 12 children representing 66,66% are mediums;
- 3 children representing 16,66% are short.

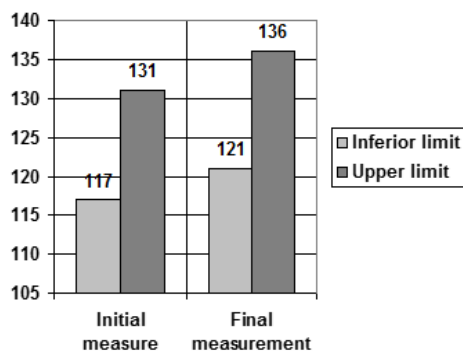
**HEIGHT (cm)**

INITIAL MEASURE			FINAL MEASUREMENT		
GIRLS	Inferior limit	117	GIRLS	Inferior limit	121
	Upper limit	130		Upper limit	135
BOYS	Inferior limit	117	BOYS	Inferior limit	121
	Upper limit	131		Upper limit	136

**GIRLS**



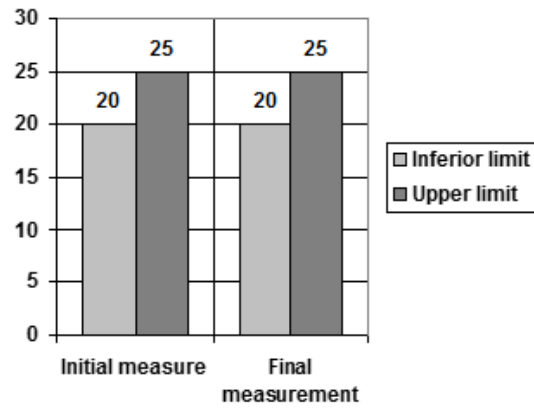
**BOYS**



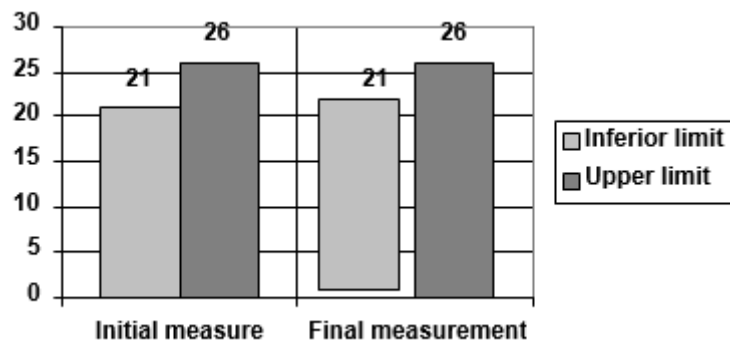
**LEAN BODY MASS (Kg)**

INITIAL MEASURE			FINAL MEASUREMENT		
Girls	Inferior limit	20	Girls	Inferior limit	20
	Upper limit	25		Upper limit	25
Boys	Inferior limit	21	Boys	Inferior limit	21
	Upper limit	26		Upper limit	26

**GIRLS**



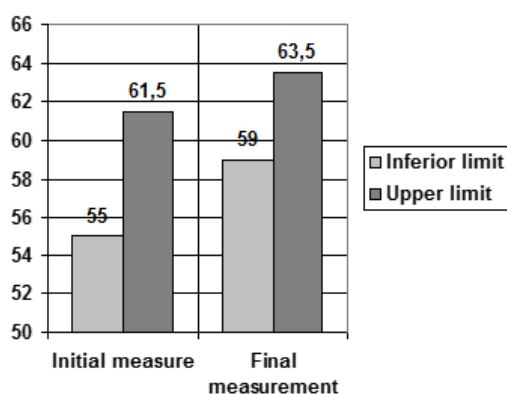
**BOYS**



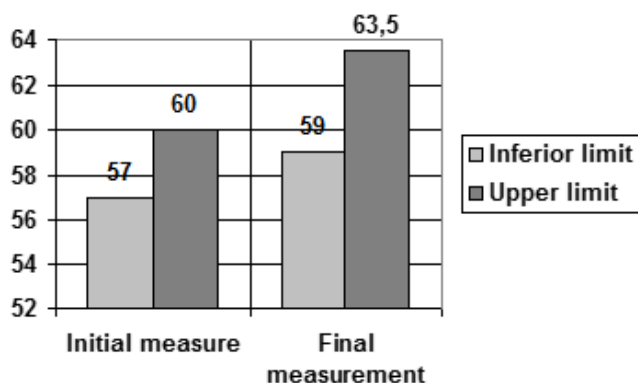
THE TORACIC PERIMETER IN INSPIRATION (cm)

INITIAL MEASURE			FINAL MEASUREMENT		
Girls	Inferior limit	55	Girls	Inferior limit	59
	Upper limit	61,5		Upper limit	63,5
Boys	Inferior limit	57	Boys	Inferior limit	59
	Upper limit	60		Upper limit	63,5

GIRLS



BOYS



Regarding the level of motorization in 15 children, representing 83.33%, the execution, control and coordination of the movement are at a good level. Precisely performs equilibrium movements (gymnastics, jumping, running, cycling - 4 children) and coordination, have manual

dexterity. The other 3 children, respectively 16.66%, are left-handed in the activities of movement, coordination, skill.

14-15 students are aware of their qualities and engage with some degree of independence in competitive action (spontaneous leader) without being consciously acknowledged by others. They start to acquire the social significance of the competition (trying to defeat the opponent and avoid the risk of being defeated). So it is found that:

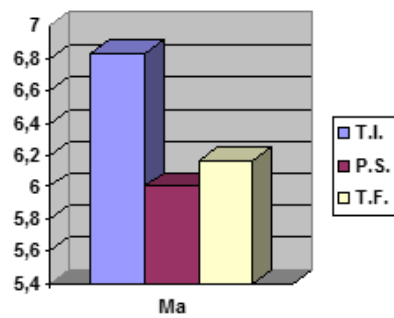
- 15 children representing 83.33% have a good and very good motorcycle;
- 3 children representing 16.66% have a low motorcycle.

From an intellectual point of view, 2 children representing 11.11% are receptive to inventive spirit; 13 children, respectively 72.22% are normal, and 3 children, representing 16.66%, are below the average. In the 15 children, mental processes are developed at an appropriate level; intensely interact with each other and with adults, sanction the mistakes of others, and obey sanctions.

The evaluation of the speed motor quality was achieved by the speed test on the 25m flat, the departure being made with the high start.

In the initial test, the speed test did not materialize because the students did not know the high start technique and the speeding. The girls did a Ma of 6 "83 and the boys got Ma of 6" 17. Ma of the class was 6 "39, above the average being 11 children, representing 61.11%, and below the average 7 children, respectively 38.88" of the subjects.  $W = 1.1$ . It can be noticed that the boys achieved better results than the girls, the difference being 0 "66.

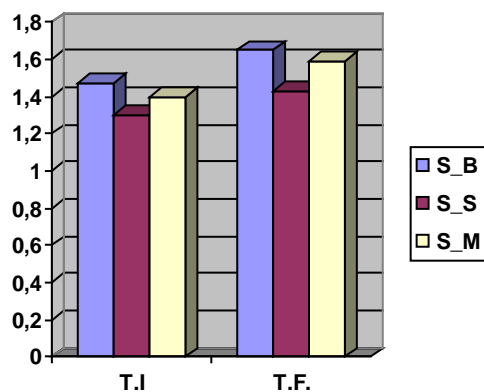
In the final test, lower arithmetic meanings were obtained, resulting in better results, the amplitude being 0.70, Ma in the girls is 5 "90, and Ma in the boys 5" 75. Me on the class is 5 "81 above the average level being 11 children representing 61.11% and below the level Ma 7 children and 38.88% respectively. We notice a small difference between the girls 'and the boys' group, which obtained by 0.15 less than the girls. The following graph demonstrates the situation presented:



The explosive force in the lower limbs I determined by jumping in the length of the place with the elbow of arms.

The initial Ma test was 1.40 cm above which Ma was 10 children, representing 55.55%, and under Ma, 8 children and 44.44 "respectively. The best jump measured 1, 47cm, and the weakest 1.30cm, achieving an amplitude of 0.17 (cm).

In the final test, the results were raised, so that Ma is 1.59 cm, which represents a progress of 0.19 cm, over Ma being 13 children, representing 72.22%, and below Ma 5 children, respectively 27.77%. The best result was 1.65 cm, and the lowest was 1.43 cm, the amplitude being 0.22 (cm). All these results will be presented graphically as follows:



The action of the forces emanating from the contraction of the body muscles was determined by the sample based on the distance of throwing distance.

The rigid thrust, the incorrect position of the throwing arm, the excessive displacement of the body before were a few mistakes that led the children to achieve low initial test results, where a Ma of 6.48 m was recorded above.

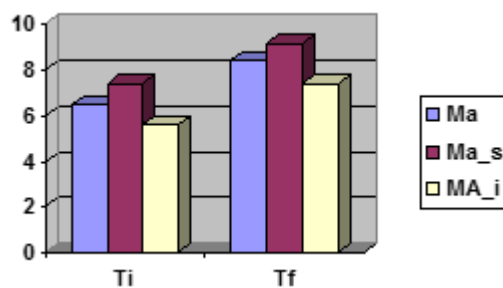
There are 8 children, representing 44.44%, and under Ma being 10 children and 55.55%, respectively.

The best shot was 7.40 m, and the lowest was 5.60 m, the amplitude being 1.80 (m). The difference between boys and girls is small and 1,70 m respectively.

In final testing the results improved so that a Ma of 8.39 m was obtained, over Ma being 9 students, ie 50%, and under Ma being 9 pupils, respectively 50%.

A progress of 1.91 m was achieved. The best shot was 9.10 m and the lowest was 7.40 m. All of these results will be presented graphically as follows:

For the assessment of cardiovascular resistance, we applied the test: long run, sample where the children ran as far as they could.

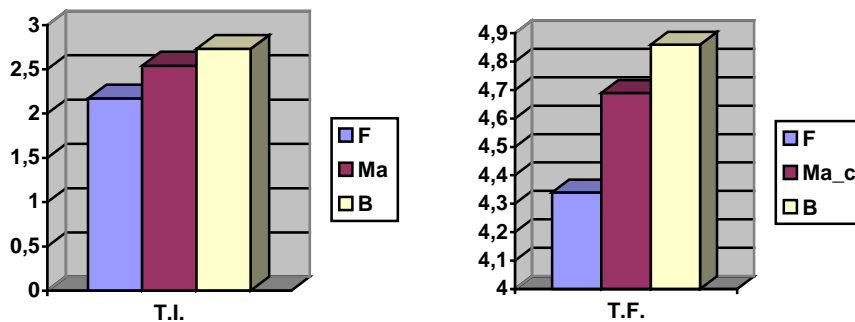


In the initial testing there were no spectacular results, Ma at girls being 2'17 ", and 2'73" boys, the difference between the two sexes being 0'56 ".Me on the class was 2 ' 54 ", above which I was 9 children, ie 50%, and below the average of the other 9 students, representing 50%. The best result was 3'50 "and the worst 1'90", the amplitude being 1'60 ". The fact that the best result was 3'50" can also be explained by the non-observance of the respiratory rhythm demanded in the run, and this was caused by the excitement of small subjects in competition with the desire to take the lead. So they ran in high rhythm, although they were warned to decrease the frequency of their steps, but the emulation was too strong to realize that if they were overtaken by others on the racetrack, they could win by prolonging this way travel.

Through varied trekking (poiana, forest) with a step-by-step runner and other exercises, the students have learned the requirements of this type of running so that the final test has achieved much better results. The girls got a 4'34 "Ma, and the boys 4'86", the difference being 0'52 ".Me on the class was 4'69", above this average there were 10 children representing 55, 55%, and below Ma are 8 children, respectively 44.44%.



The best time was 5'20 "and the minimum time was 3'65", the amplitude being 1'55". The graphs below reflect the results obtained in this sample:



Both girls and boys achieved good results in the final stage, making the following progress: the girls have a progress of 2'16 "and the boys 2'13", with a difference of 0'03 ", the girls making progress great.

**Conclusions:**

Under the conditions of an intensive physical education program for the first grade schoolchildren, the daily alternation of the intellectual and the physical effort, there were favorable effects on the school results as well as the sprint results, while the children made considerable progress in the three somatic index (waist, body mass, thorax perimeter); as can be seen from the situation below:

- 7 children developed very well physically at all three somatic indexes, having results over Ma for the countryside and having a very good education attitude - 38.88% (3 of them, 16.66%, obtained at all disciplines rating FB.)
- 8 children have a good physical development at Ma country level for the rural environment, but also a learning situation with predominantly B and sometimes FB grades, representing 44.44%
- 3 children do not have a harmonious physical development (a child with a backbone accentuated in the dorsal area) but no good teaching situation, predominantly S (one child remained repetitive); the three representing 16.66%

The conclusion is that most children (15) have a harmonious physical development appropriate to their age, but also good, even very good intellectual capacity; and those who develop less physically

harmonious, are not capable of any brilliant intellectual activity, even insufficient for a child.

In order to find out the relationship between the physical and the manifestation of the driving capacity of the first grade schoolchildren, parallel to the physical development indexes: height, body mass, thoracic perimeter, thoracic elasticity, four pilot samples and two applicative pathways were applied found the level of physical qualities or motor skills.

Following these tests, the following were found:

- 7 children with very good physical development achieved very good results and the motor samples were rated FB, representing 38.88%;
- 5 children with good physical development achieved very good results in driving tests; representing 27.77%;
- 3 children with good physical development but with sufficient results in motor samples; representing 16.66%.
- 2 children with poor physical development have obtained insufficient results in motor samples; representing 11.11%.

In conclusion, children with a harmonious physical development, corresponding to the chronological age (some even exceeding the average age of the biological age) (12 children), have achieved very good results in the four driving tests and the two applicative pathways; and those with inadequate physical development were not satisfied with the applied driving tests.

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**STUDIU CONSTATATIV PRIVIND CORELAȚIA DINTRE  
PRINCIPALII INDICATORI MORFO-FUNCȚIONALI ȘI  
MANIFESTAREA CAPACITĂȚILOR MOTRICE A  
ȘCOLARILOR DIN CLASA I-a**

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**Keywords: capacitate motrică, indicatori morfo-funcționali, corelația**

**Abstract:** O dezvoltare normală, sănătoasă, sporește buna dispoziție, puterea de muncă, atenția; favorizează capacitatea de asimilare a cunoștințelor, însușirea deprinderilor motrice; dezvoltă calitățile motrice.

Toate exercițiile și jocurile selecționate în această lucrare au drept scop, pe lângă călirea organismului și întărirea sănătății; dezvoltarea armonioasă a tuturor grupurilor musculare, prevenirea localizării unor atitudini vicioase, creșterea capacității intelectuale, a indicilor morfo-funcționali, crearea bunei dispoziții. Mi-am propus ca, înainte de toate să pornesc de la cunoașterea copiilor sub toate aspectele, ceea ce-mi va permite să realizez nu doar o simplă adecvare a activității instructiv-educative la nivelul deja atins în dezvoltarea motrică a lor, ci să pot interveni în procesul dezvoltării motrice, stimulând trăsăturile pozitive și

reorientându-le pe cele negative, în funcție de potențialul bio-psiho-  
motric al fiecărui copil.