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### **Abstract**

Physical education in general and sports games in particular offer multiple means by which the physical and mental development of students is achieved. All the means, carefully selected and optimally dosed, put into practice through participative-active methods, have an increased efficiency regarding technical training, educating the motor qualities required by the game, but also important for behavioral changes, the formation of moral qualities - will necessary for any young person to his integration into society. The method of studying the specialized literature allowed us to study specialized works in the field of physical education, the observation method made it possible to observe the attitude of the students within the experiment, the statistical method helped us process the results obtained from a mathematical-statistical point of view, and the method graphical and tabular in presenting data using tables and graphs. The objective of the test method was to ascertain and highlight the evolution of previously established groups of students. The purpose of the research is to evaluate the initial level of development and physical training of students in the 7th grade.

### **Introduction**

School physical education, in the midst of conceptual reform, requires reconsideration of the means and methods of making the didactic process more efficient in order to improve the level of motor activity, the training and development of aptitude capacities and the complex affirmation of the adolescent's personality.

An appreciation of physical education is made by Cristea S. [3], who mentions that "physical education represents a physical training-development

activity necessary to ensure human health, respectively the state of balance and functioning of the body", deepens the notion of education physical, which must go beyond the sphere of bodily and physiological action, representing "the training-development activity of the human personality under the specific conditions of contemporary society.

Through the systematic practice of physical exercises, especially sports games, at this age, not only the motor development of young people is taken into account, but also the formation of elementary sports skills in order to arouse their interest in the independent practice of sports activities in a group, offering at the same time knowledge, skills and skills useful in everyday activity.

Education and development of motor skills pursue the main goal, ensuring the necessary motor fund to facilitate the acquisition of motor skills specific to athletics, gymnastics and technical elements of sports games.

Basic motor skills, as well as those specific to certain sports disciplines, branches and events, are consolidated within concrete activities: athletic events (speed running, long jump or high jump at the student's option, weight throw and endurance running with character mandatory for all classes); artistic and rhythmic gymnastics, apparatus jumping; sports games (two different games and one common game).

We support the opinion of some specialists [6,8,10,11] who mention that sports games constitute an important content of school physical education, which is based on supporting students, their importance being valid for the whole process of training and sports education of students in education pre-university. The school practice proves to us that the sports games carried out by competition methods through the structure of motor actions, confer a special significance in realizing the biomotor potential and the educational-formative process.

The post-pubertal school age is of increased interest, say many authors, which, being involved in various physical education activities, is characterized as a flexible receptive age for the instructional-formative process [1,2,7,9,12,].

### **Research methodology and organization**

In order to obtain some informative values regarding the degree of physical development, as well as the physical training of the students in the secondary school, from the 7th grade, we carried out a constitutive study consisting of 308 students, 146 girls and 162 boys, where the results obtained were compared with

the minimum and maximum performance standards presented in the National School Evaluation System for the discipline of physical education and sport [5], and the results of the anthropometric measurements were compared with the values of the researcher M. Epuran [4], written in his work, Activity Research Methodology corporeal.

The method of studying specialized literature allowed us to study specialized works in the field of physical education, the method of observation made it possible to observe the attitude of the students within the experiment, the method of tests that provided us with the results of the students, the statistical method helped us in processing the results obtained from a mathematical-statistical point of view, and the graphic and tabular method in presenting data with the help of tables and graphs.

### The results and their interpretation

During the ascertainment study, the indicators used to evaluate somatic parameters were height (cm), body weight (kg) and BMI. To identify the values regarding physical training, the students performed the following tests: standing long jump (cm), trunk lifts - girls (rep. no.), leg lifts - boys (rep. no.), push-ups (rep. no. rep.), balance (s), shot put (m), sprint – 50m (s) and endurance run – 800m – girls, 1000m – boys (min.).

The national evaluation system provides minimum scales for grade 5 and maximum grades for grade 10 that will be compared with the results obtained by the students included in the ascertainment study.

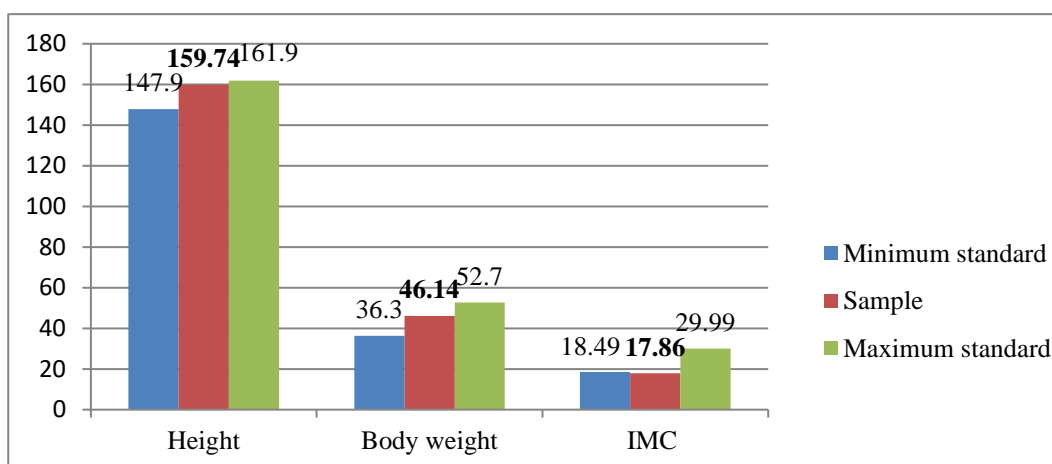
The data obtained are centralized in table 1.1. and graphically represented for interpretation.

**Table 1.1 The results obtained in the confirmatory experiment**

Measurements/ test	Girls (n=146)		Boys (n=162)	
	Standard min./max.	Sample X±m	Standard min./max.	Sample X±m
Height	147,9 - 161,9	<b>159,74±0,55</b>	145,5 - 162,5	<b>161,15±0,60</b>
Body weight	36,3 - 52,7	<b>46,14±0,58</b>	34,2 - 50	<b>45,65±0,54</b>
IMC	18,49 - 29,99	<b>17,86±0,19</b>	18,49 - 29,99	<b>17,59±0,18</b>
Long jump	140 - 160	<b>136,48±1,37</b>	160 - 180	<b>166,01±0,91</b>
Trunk lifts	16 - 24	<b>21,65±0,34</b>		
Leg lifts			12 - 20	<b>9,42±0,24</b>
Pushups	4 - 11	<b>10,69±0,24</b>	6 - 13	<b>8,71±0,21</b>
Balance		<b>21,57±0,43</b>		<b>25,91±0,64</b>

Throwing the sheep ball	14 - 26	<b>20,31±0,26</b>	22 - 32	<b>25,48±0,30</b>
Speed running	9,4 - 8,7	<b>9,32±0,03</b>	8,4 - 7,9	<b>8,07±0,03</b>
Endurance running	4,55 - 4,20	<b>4,07±0,03</b>	4,55 - 4,10	<b>4,45±0,02</b>

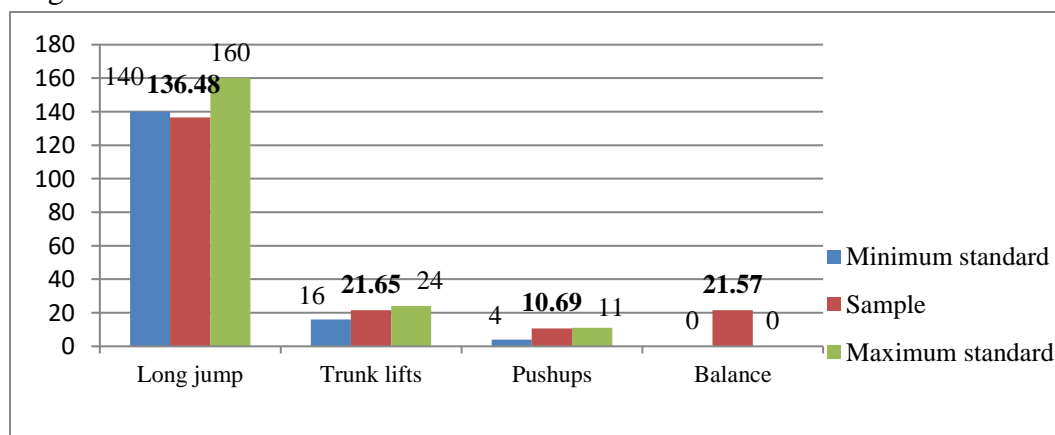
Comparing the results obtained with the data from the specialized literature (Figure 1.1.), for the somatic height index, we find that the girls have an average height of 159.74cm, according to the minimum standards of 147.9cm and 161.9cm the maximum standards at the age of 13 years, according to M. Epuran.



**Fig. 1.1. Comparative analysis of anthropometric data obtained by girls with data from the specialized literature**

The average of the results obtained regarding the body weight of the girls from the constitutive study is 46.14kg, with an average error of  $\pm 0.55$ , being in a middle area, the minimum standards being 36.3kg and the maximum standards of 52.7 kg. The BMI value obtained, 17.86, indicates that it is a less good result, ranking in the area of underweight individuals.

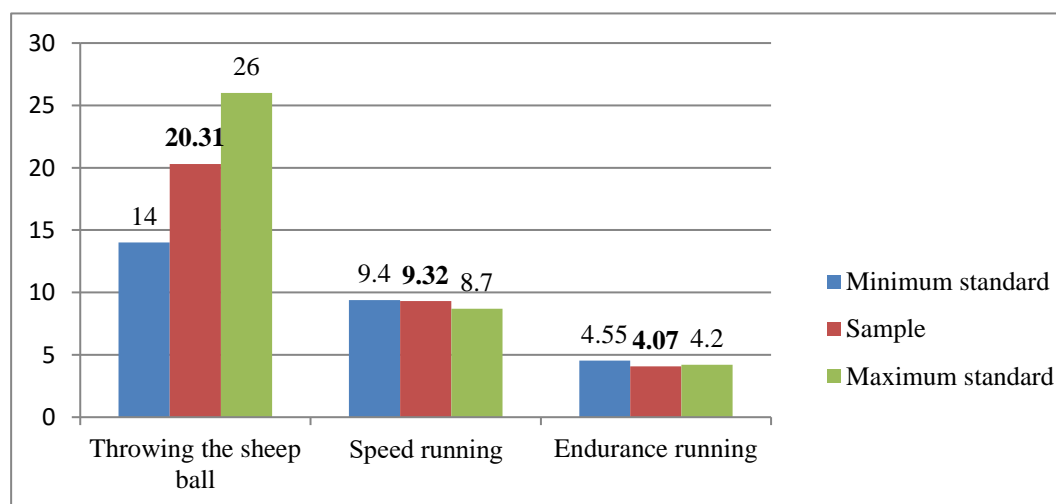
From the graph below Fig. 1.2, we can see in the standing long jump, the girls obtained an average value of 136.48cm, 3.52cm less than the minimum value for grade 5.



**Fig. 1.2. Comparative analysis of the motor results obtained by girls with the performances in the national evaluation system**

According to the results of this control sample, a weak muscle development is observed in the lower limbs. The performance obtained at the level of the abdominal muscles by means of the trunk lifting test, according to the evaluation system, the students obtain a grade of 8 with 21.65 repetitions. At the level of the upper limbs, we used the push-ups, and the results are good, the students obtaining an average value of 10.69, approaching 11 repetitions, which results in a score of 10. When testing the balance, the girls who make up the ascertainable sample achieved an average value of 21.57 seconds.

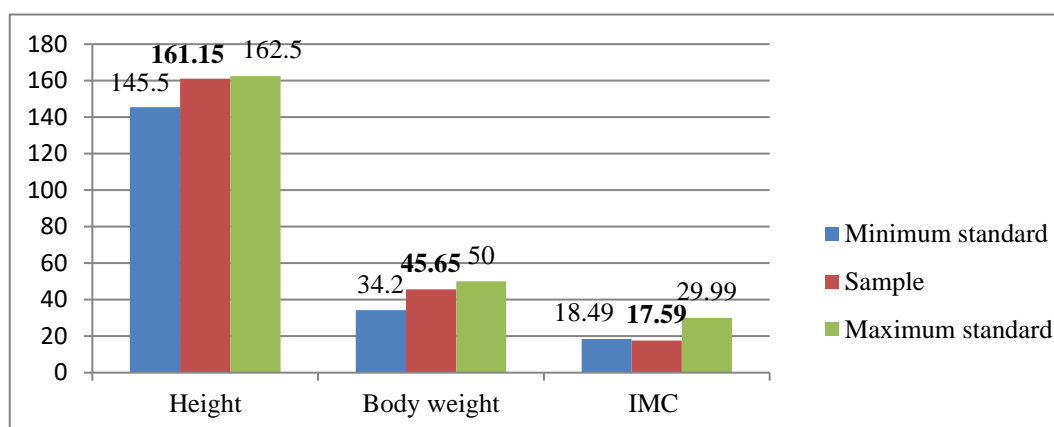
Figure 1.3. shows the mean performance of the girls in the control tests: the shot put, the sprint and the endurance run. The result obtained when throwing the sheep ball is 20.31m, placing it at an average level, starting from 14m for grade 5, minimum distance and 26m maximum distance, for grade 10. In the motor test, the speed run, the girls obtain a poor average value compared to the national evaluation system in Romania. The sample achieves a time interval of 9.32s, and the minimum standard is 9.4s and the maximum is 8.7s. The data recorded for endurance running are superior to those for grade 10, thus the girls obtain an average value of 4.07 min. being 0.13s less than 4.2min. value for the maximum standard.



**Fig. 1.3. Comparative analysis of the motor results obtained by girls with the performances in the national evaluation system**

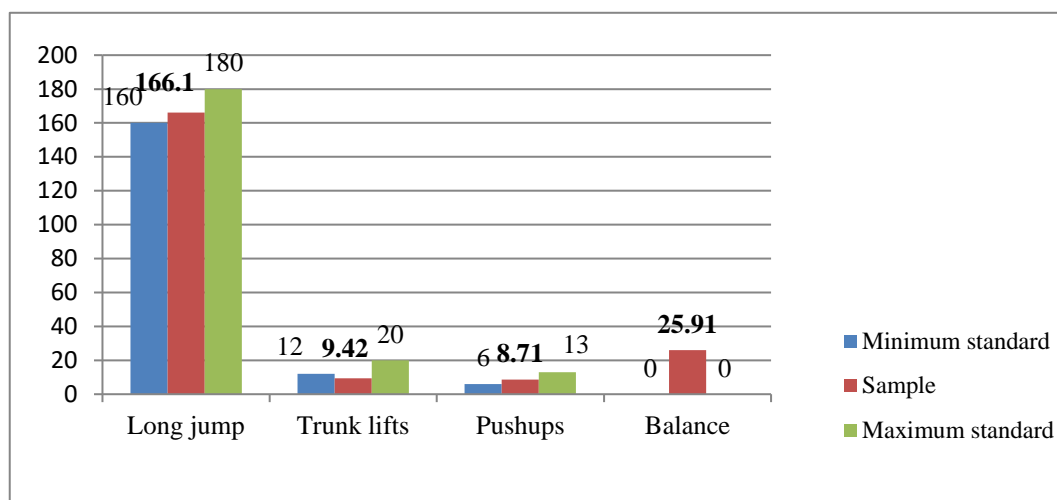
The height recorded by the researched sample, for boys, is 161.15cm, referring to the minimum level of 145.5cm and 162.5cm to the maximum level, as being a very good one. Compared to the minimum standard of 34.2kg and the

maximum standard of 50kg, the body weight is given by the average value of 45.65kg, finding an average level. The ratio of height to body weight indicates a lower result with BMI reports indicating underweight individuals (Figure 1.4).



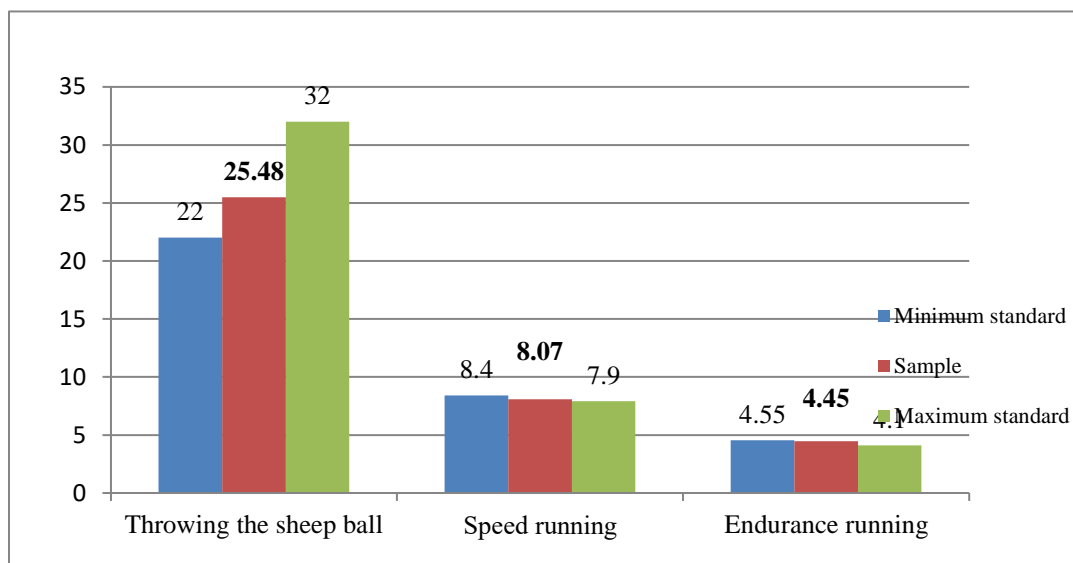
**Fig. 1.4. Comparative analysis of anthropometric data obtained by boys with data from the specialized literature**

We can see in figure 1.5., in the long jump motor test, the boys achieve a poor result, 166.01cm, compared to the maximum standard of 160cm and the maximum of 180cm, in leg lifts they rank below the minimum level, registering 9.42 , and in push-ups they are positioned at an average level obtaining 8.71 repetitions (standard minimum/maximum 6/13 repetitions). In the balance test, the boys achieve an average value equal to 25.91 seconds.



**Fig. 1.5. Comparative analysis of the motor results achieved by boys with the performances in the national evaluation system**

Regarding the test of throwing the sheep ball (Figure 1.6.), from the recorded data, the boys have a poor result obtaining an average value of 25.48m in relation to the minimum and maximum standards. For the speed run, the obtained result shows us the grade 8 with a performance of 8.07 seconds, which is a rather poor level. In endurance running, we get an average of 4.45 seconds, which puts them at grade 7, according to the national evaluation system, the minimum standard is 4.1 seconds and the maximum is 4.55 seconds.



**Fig. 1.6. Comparative analysis of the motor results achieved by boys with the performances in the national evaluation system**

## Conclusions

The results obtained by the sample of 7th grade students provided us with useful information about somatic development and the level of general motor training. The data recorded regarding the anthropometric profile of the 7th grade secondary school student, show us that they are underweight, both in girls and in boys. In the motor tests according to the national evaluation system, we are at an average level, grade 7.

In conclusion, we believe that it is necessary to introduce a program that contains specific means for physical development and a sports game. In addition to physical exercise, we recommend a healthy diet.

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