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Change physical health development of males primary school students 6 - 10 years old in Ho Chi Minh city, Vietnam

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Abstract

The paper uses routine research methods in the field of physical education focusing on clarifying the development of physical health development of male students (MS) Primary school (PS) 06 - 10 years old in Ho Chi Minh City; through the synthesis and comparison of the average value of the physical health indicators of male students 6 - 10 years old between ages and the physical development of primary school male (06-10 years old) Ho Chi Minh city through chart. Results of physical health (PH) development of primary school students in Ho Chi Minh City, takes place normally in accordance with the rules of development of ages.

Keywords: Change, physical health, males students, Primary school, Ho Chi Minh city

1. Introduction

Physical health development is a dynamic element, change are complex, is influenced by many factors: genetics, environment, endocrine, disease and secular. In developed countries, life is relatively stable, physical surveys are regular jobs every 5 to 10 years. In my opinion, in Vietnam, this job needs more often, because: after the reunification of the country, although only more than 2 decades, the economic life, the educational environment... are constantly changing especially. In recent years, the socio-economic development speed has been very strong, the children's life is fuller, so the physical health development will also change a lot. Students in primary schools are the country's future workforce. This force plays an important role in the cause of national renewal, industrialization and modernization. The physical health development of this subject is not only a matter of race but also a matter of fostering an important workforce in the future. With accurate information about the physical development of this object is extremely necessary, this is an important basis for students to orient in physical health training. Stemming from that fact, we conducted research: "Change physical health development of males primary school students 6 - 10 years old in Ho Chi Minh City".

2. Research and Methods

The following research methods: reference materials, pedagogical testing methods, medical examination methods and statistical math.

Study object: 1511 males primary school students (06 - 10 years old) in the Ho Chi Minh city, Vietnam; including 305 males students 06 years old, 355 males students 07 years old, 300 males students 08 years old, 316 males students 09 years old and 275 males students 10 years old.

3. Results

Assessing the development PH of MS 06 - 10 years old in Ho Chi Minh city proceeds in 2 steps:

Step 1: Comparing the average value of PH of MS in Ho Chi Minh City among different age groups through one-way variance analysis (one-way ANOVA).

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Step 2: Assess the development of PH development of elementary school students in Ho Chi Minh City Ho Chi Minh between ages through the graph.

The graph movement is built on the relative difference (d). The relative difference (%) is the ratio of the difference between the average value of the physical assessment indicators of male primary school students in Ho Chi Minh City, between ages and the average value of the Physical assessment indicators of the first-year-old age-of-6 grade by

the formula:

$$D = \frac{\bar{X} - \bar{X}_6}{\bar{X}_6} 100\%$$

The results of comparing the PH assessment indicators of MS 6-10 year old elementary school students in Ho Chi Minh City among age groups through the one-way ANOVA method presented shown in table 1.

Table 1: Results of average comparison of physical health assessment indicators of MS aged 6 - 10 years old in Ho Chi Minh City by age:

No	Test	F	Sig	Post - hoc (Scheffe)
1	Height (cm)	377.21	.000	$\mu 1 < \mu 2 < \mu 3 < \mu 4 < \mu 5$
2	Weight (kg)	183.48	.000	$\mu 1 < \mu 2 < \mu 3 < \mu 4 < \mu 5$
3	BMI index	22.16	.000	$\mu 1 \approx \mu 2, \mu 4 \approx \mu 3, \mu 1 < \mu 4$ $\mu 2 < \mu 4 < \mu 5, \mu 1 < \mu 3 < \mu 5$ $\mu 2 < \mu 3$
4	Heart function (HW)	5.57	.000	$\mu 1 \approx \mu 2 \approx \mu 3 \approx \mu 4$ $\mu 5 < \mu 1, \mu 5 < \mu 2, \mu 5 < \mu 3, \mu 5 < \mu 4$
5	Running 30m (s)	71.01	.000	$\mu 1 < \mu 2 < \mu 3 < \mu 5, \mu 4 \approx \mu 3$ $\mu 1 < \mu 2 < \mu 4 < \mu 5$
6	Long jump (cm)	299.61	.000	$\mu 1 < \mu 2 < \mu 3 < \mu 4 < \mu 5$
7	Bending the body (cm)	3.85	.004	$\mu 1 \approx \mu 2 \approx \mu 3 \approx \mu 5$ $\mu 4 < \mu 1, \mu 4 < \mu 2, \mu 4 < \mu 3, \mu 4 < \mu 5$
8	Right hand's force (kg)	75.65	.000	$\mu 4 \approx \mu 5, \mu 1 < \mu 2 < \mu 3 < \mu 4$ $\mu 1 < \mu 2 < \mu 3 < \mu 5$
9	Stomach test PH 30 second (time)	60.98	.000	$\mu 1 < \mu 2 < \mu 3 < \mu 4 < \mu 5$
10	Running 4*10m (s)	144.91	.000	$\mu 1 < \mu 2 < \mu 4 < \mu 5, \mu 4 \approx \mu 3$ $\mu 1 < \mu 2 < \mu 3 < \mu 5$
11	Running 5-minute (m)	95.42	.000	$\mu 1 < \mu 2 < \mu 4 < \mu 5, \mu 2 \approx \mu 3$ $\mu 1 < \mu 3 < \mu 4 < \mu 5$

Note: $\mu 1$: 06 years old; $\mu 2$: 07 years old; $\mu 3$: 08 years old; $\mu 4$: 09 years old, $\mu 5$: 10 years old.

The data in Table 1 shows;

The average height of MS from 06 to 10 years old in Ho Chi Minh city has the difference between all ages, the difference is statistically significant (sig <0.001); in which the height of the age of 10 is highest, followed by the height of the age of 9 years old, 8 years old, 7 years old and 6 years old. Average weight of MS at 6-10 years old in Ho Chi Minh City has the difference between all ages, the difference is statistically significant (sig <0.001); in which the weight of the age of 10 years old is followed by the weight of the age of 9 years old, 8 years old, 7 years old and 6 years old. Average BMI of MS 6-10 years old in Ho Chi Minh City has no difference between the age of 9 and 10 and the age of 6 and 7 (sig > 0.05); In addition, the difference between the remaining ages is statistically significant (sig <0.001), in which the BMI of ages 9 and 10 is higher than the ages of 6 and 7 years.

Average heart function (HW) of MS 6-10 year old PS in Ho Chi Minh City, there is no difference between the ages of 6, 7, 8 and 9 (sig > 0.05); In addition, the difference between the remaining ages was statistically significant (sig <0.001), in which the heart function index of age 10 was lower than ages 6, 7, 8 and 9. Running 30m high on the average of MS 06 - 10 years old in Ho Chi Minh City, there is no difference between the age of 8 and 9 (sig > 0.05); In addition, the difference between the remaining ages was statistically significant (sig <0.001), in which the 30m run was higher for the age of 10 than for ages 6, 7, 8 and 9, age 8, 9 is older than age 6, 7 and age 7 is higher than age 6. Long jump (cm) average of MS 06 - 10 years old in Ho Chi Minh City has the difference between all ages, the difference is statistically significant (sig <0.001); in which, the local receding age of the highest 10 years old

was followed by the remote age of 9 years old, 8 years old, 7 years old and 6 years old. Average bending the body (cm) of MS 06 - 10 years old in Ho Chi Minh City, there is no difference between the ages of 6, 7, and 8 with 10 (sig > 0.05); In addition, the difference between the remaining ages was statistically significant (sig <0.001), in which the flexible body of the age of 9 is lower than the ages of 6, 7, 8 and 10. Average right hand's force (kg) of MS 6 - 10 years old in Ho Chi Minh City had no difference between the age of 9 and 10 (sig > 0.05); In addition, the difference between the remaining ages was statistically significant (sig <0.001), in which the dominant hand squeezing force of ages 9 and 10 was higher than the ages of 6, 7, 8 and 8 years of age. higher than age 7 and aged 7 higher than age 6.

Stomach test PH 30 second (time) average of MS 06 - 10 years old in Ho Chi Minh City, has the difference between all ages, the difference is statistically significant (sig <0.001); in which the supine abdomen of age 10 is the next to the supine supine position at the age of 9 years old, 8 years old, 7 years old and 6 years old Running 4 x 10m average of MS 06 - 10 year old in Ho Chi Minh City, there is no difference between the age of 8 and 9 (sig > 0.05); In addition, the difference between the remaining ages is statistically significant (sig <0.001), in which, running a 4 x 10m shuttle of age 10 is higher than ages 6, 7, 8 and 9, age 8, 9 are older than age 6, 7, and age 7 is over age 6. Running 5 minutes average of MS 06 - 10 years old in Ho Chi Minh City, there is no difference between the ages of 7 and 8 (sig > 0.05); In addition, the difference between the remaining ages was statistically significant (sig <0.001), in which running 5 minutes depending on the strength of the age 10 is higher than the ages

of 6, 7, 8 and 9, age 9 higher than age 6, 7, 8 and age 7, 8 higher than age 6. The above analysis shows that, between the ages of 06 and 07, from 07 to 08, from 08 to 09 and from 09 to 10, the natural growth according to age of almost all physical health evaluation indicators. Besides, there are some indicators among the different ages, the poor do not follow the development of age such as: cardiovascular function (heart function) at age 10, plastic at age 9.

In other words, from the age of 06 up to 10 years old, physical health development includes the morphology, fitness and function of 6 - 10 year old male students in Ho Chi Minh City takes place normally in accordance with the rules of development of ages. Particularly heart function (10 years old) and bending the body (9 years old) do not develop properly according to age.

Table 2: Relative differences between physical health indicators of males students aged 6-10 in Ho Chi Minh City

No	Test	M_6	M_7	M_8	M_9	M_{10}	d_7	d_8	d_9	d_{10}
1	Height (cm)	119.28	125.32	129.47	135.47	138.05	5.06	8.54	13.57	15.74
2	Weight (kg)	24.38	26.63	29.83	32.82	36.02	9.23	22.35	34.62	47.74
3	BMI index	17.03	16.9	17.7	17.81	18.85	-0.76	3.93	4.58	10.69
4	Heart function (HW)	11	11.05	11.2	11.15	11.94	0.45	1.82	1.36	8.55
5	Running 30m (s)	7.75	7.15	6.87	6.89	6.12	-7.74	-11.35	-11.10	-21.03
6	Long jump (cm)	109.34	117.48	131.03	138.36	154.96	7.44	19.84	26.54	41.72
7	Bending the body (cm)	5.44	5.4	5.45	4.86	5.58	-0.74	0.18	-10.66	2.57
8	Right hand's force (kg)	4.9	6.94	7.78	9.04	9.58	41.63	58.78	84.49	95.51
9	Stomach test PH 30 second (time)	8.5	9.23	10.11	10.86	12.72	8.59	18.94	27.76	49.65
10	Running 4*10m (s)	14.9	14.3	13.06	12.98	12.54	-4.03	-12.35	-12.89	-15.84
11	Running 5-minute (m)	553.96	602.58	606.19	681.61	725.45	8.78	9.43	23.04	30.96

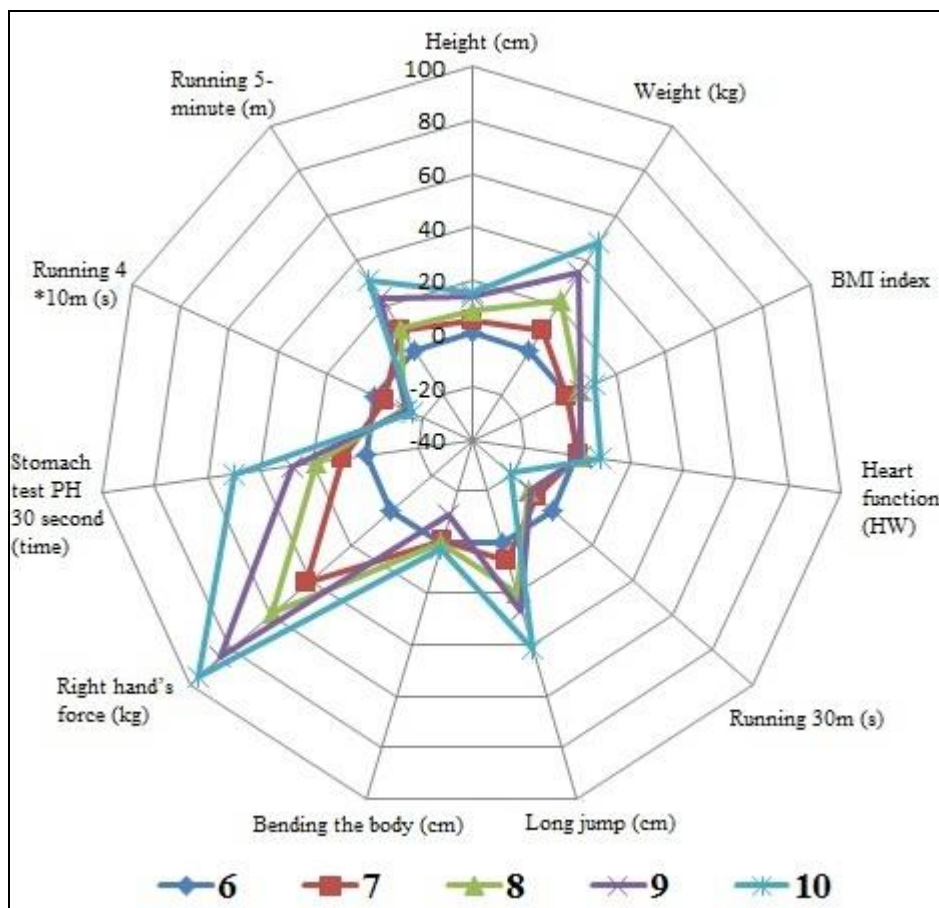


Chart 1: Change development of physical health of male students at 6-10 year olds in Ho Chi Minh City

Results of table 2 and observation of chart 1, if we use the physical health indicators of age 06 as a standard for comparison, we will see all physical health indicators. The difference between the 5 ages 6, 7, 8, 9 and 10 varies from -21.03% to 95.51%. In which, the “area” is the largest at age 10, followed by the “area” at age 9, age 8, age 7 and age 6. The above results again show the physical development of men 6 - 10 year old elementary school student in Ho Chi Minh city development is true with the development of age.

The above data shows that almost all physical health indicators (form, physical fitness, function) of boys aged 6 - 10 years old tend to develop proportional to age, that is, older age tends to be better than younger age. In contrast, cardiovascular function (10 years) and ductility (9 years) tend to develop inversely proportional to age. Here the topic is only considered to be trending because some indicators have differences, but these differences are not statistically significant (Sig> 0.05).

4. Discussion

Change development of physical health of male primary school students in Ho Chi Minh City from the age of 06 on to 10 years old, physical health development including form, physical fitness and function take place normally in accordance with the development rule of the age group. Particularly heart function (10 years) and bending the body (9 years old) do not develop properly according to age. All physical indicators of all 5 ages 6, 7, 8, 9 and 10 differ from 21.03% to 95.51%. In particular, the "area" of the 10-year-old largest, followed by the "area" of age 9, age 8, age 7 and age 6.

5. References

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