



International Journal of Physical Education, Sports and Health

P-ISSN: 2394-1685
E-ISSN: 2394-1693
Impact Factor (ISRA): 5.38
IJPESH 2020; 7(2): 76-79
© 2020 IJPESH
www.kheljournal.com
Received: 07-01-2020
Accepted: 09-02-2020

Nguyen Quang Son
University of Economics Ho Chi
Minh City, Vietnam

Nguyen Quang Vinh
Ho Chi Minh City University of
Physical Education and Sport,
Vietnam

Change physical health development of males primary school students 11 - 14 years old in Ho Chi Minh City, Vietnam

Nguyen Quang Son and Nguyen Quang Vinh

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) 11 - 14 years old in Ho Chi Minh City; through the synthesis and comparison of the average value of the physical health indicators of male students 11-14 years old between ages and the physical development of primary school male (11-14 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 11-14 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: 1453 males primary school students (11-14 years old) in the Ho Chi Minh city, Vietnam; including 368 males students 11 years old, 328 males students 12 years old, 363 males students 13 years old, 394 males students 14 years old.

3. Results

Assessing the development PH of MS 11-14 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).

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.

Corresponding Author:
Nguyen Quang Son
University of Economics Ho Chi
Minh City, Vietnam

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 11-14 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 11-14 years old in Ho Chi Minh City by age:

No	Test	F	Sig	Post - hoc (Scheffe)
1	Height (cm)	426.76	.000	$\mu 1 < \mu 2 < \mu 3 < \mu 4$
2	Weight (kg)	183.68	.000	$\mu 1 < \mu 2 < \mu 3 < \mu 4$
3	BMI index	13.53	.000	$\mu 1 \approx \mu 2, \mu 2 \approx \mu 3, \mu 3 \approx \mu 4, \mu 1 < \mu 2 < \mu 4, \mu 1 < \mu 3$
4	Heart function (HW)	43.14	.000	$\mu 2 \approx \mu 3, \mu 1 < \mu 4 < \mu 3, \mu 1 < \mu 4 < \mu 2$
5	Running 30m (s)	54.15	.000	$\mu 1 \approx \mu 2, \mu 3 \approx \mu 4$ $\mu 1 < \mu 3, \mu 2 < \mu 3, \mu 1 < \mu 4, \mu 2 < \mu 4$
6	Long jump (cm)	229.28	.000	$\mu 1 < \mu 2 < \mu 3 < \mu 4$
7	Bending the body (cm)	20.12	.000	$\mu 4 \approx \mu 3, \mu 1 < \mu 2 < \mu 4$ $\mu 1 < \mu 2 < \mu 3$
8	Right hand's force (kg)	327.16	.000	$\mu 1 < \mu 2 < \mu 3 < \mu 4$
9	Stomach test PH 30 second (time)	68.46	.000	$\mu 1 \approx \mu 2 \approx \mu 3, \mu 1 < \mu 4, \mu 2 < \mu 4, \mu 3 < \mu 4$
10	Running 4*10m (s)	28.07	.000	$\mu 1 \approx \mu 2, \mu 3 \approx \mu 4$ $\mu 1 < \mu 3, \mu 2 < \mu 3, \mu 1 < \mu 4, \mu 2 < \mu 4$
11	Running 5-minute (m)	23.26	.000	$\mu 2 \approx \mu 3, \mu 3 \approx \mu 4$ $\mu 1 < \mu 2 < \mu 4, \mu 1 < \mu 3$

Note: $\mu 1$: 11 years old; $\mu 2$: 12 years old; $\mu 3$: 13 years old; $\mu 4$: 14 years old.

The data in Table 1 shows;

The average height of MS from 11 to 14 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 14 is highest, followed by the height of the age of 13 years old, 12 years old, 11 years old.

Average weight of MS at 11-14 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 14 years old is followed by the weight of the age of 13 years old, 12 years old, 11 years old.

Average BMI of MS 11-14 years old in Ho Chi Minh City has no difference between the age of 11 and 12 and the age of 12 and 13, 13 and 14 (sig > 0.05); In addition, the difference between the remaining ages is statistically significant (sig <0.001), in which the BMI of ages 14 is higher than the ages of 11 and 12 years.

Average heart function (HW) of MS 11-14 year old PS in Ho Chi Minh City, there is no difference between the ages of 12 and 13 (sig > 0.05); In addition, the difference between the remaining ages is statistically significant (sig <0.001), in which the heart function index of age 11 is lower than the remaining ages and the age of 14 is lower than the age of 12, 13.

Running 30m high on the average of MS 11-14 years old in Ho Chi Minh City, there is no difference between the age of 11 and 12, 13 and 14 (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 13 and 14 than for ages 11, 12.

Long jump (cm) average of MS 11-14 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 14 years old was followed by the remote age of 13 years old, 12 years old, 11 years old.

Average bending the body (cm) of MS 11-14 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 11-14 years old in Ho Chi Minh City had no difference between the age of 13 and 14 (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 13 and 14 was higher than the ages of 11, 12.

Stomach test PH 30 second (time) average of MS 11-14 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 14 is the next to the supine position at the age of 12 years old, 11 years old, 13 years old.

Running 4 x 10m average of MS 11-14 year old in Ho Chi Minh City, there is no difference between the age of 13, 14 and 11, 12 (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 13, 14 is higher than ages 11, 12.

Running 5 minutes average of MS 11-14 years old in Ho Chi Minh City, there is no difference between the ages of 11, 12 and 13, 14 (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 14 is higher than the ages of 13, 12 and 11.

The above analysis shows that, between the ages of 11 and 12, from 13 to 14, 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 13, plastic at age 13.

In other words, from the age of 11 up to 14 years old, physical health development includes the morphology, fitness and function of 11-14 year old male students in Ho Chi Minh City takes place normally in accordance with the rules of

development of ages. Particularly heart function (14 years old) and bending the body (13 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 ₁₁	M ₁₂	M ₁₃	M ₁₄	D ₁₂	D ₁₃	D ₁₄
1	Height (cm)	143.72	150.55	157.49	163.69	4.75	9.58	13.90
2	Weight (kg)	36.87	41.5	46.71	51.03	12.56	26.69	38.41
3	BMI index	17.78	18.18	18.69	18.98	2.25	5.12	6.75
4	Heart function (HW)	12.2	10.16	9.95	11.1	-16.72	-18.44	-9.02
5	Running 30m (s)	5.51	5.47	5.16	5.1	-0.73	-6.35	-7.44
6	Long jump (cm)	167.26	175.4	191.98	201.24	4.87	14.78	20.32
7	Bending the body (cm)	7.11	8.17	9.17	9.22	14.91	28.97	29.68
8	Right hand's force (kg)	15.62	22.12	25.85	30.36	41.61	65.49	94.37
9	Stomach test PH 30 second (time)	15.69	15.84	16.09	19.03	0.96	2.55	21.29
10	Running 4*10m (s)	11.91	11.83	11.45	11.29	-0.67	-3.86	-5.21
11	Running 5-minute (m)	797.76	836.73	868.09	885.82	4.88	8.82	11.04

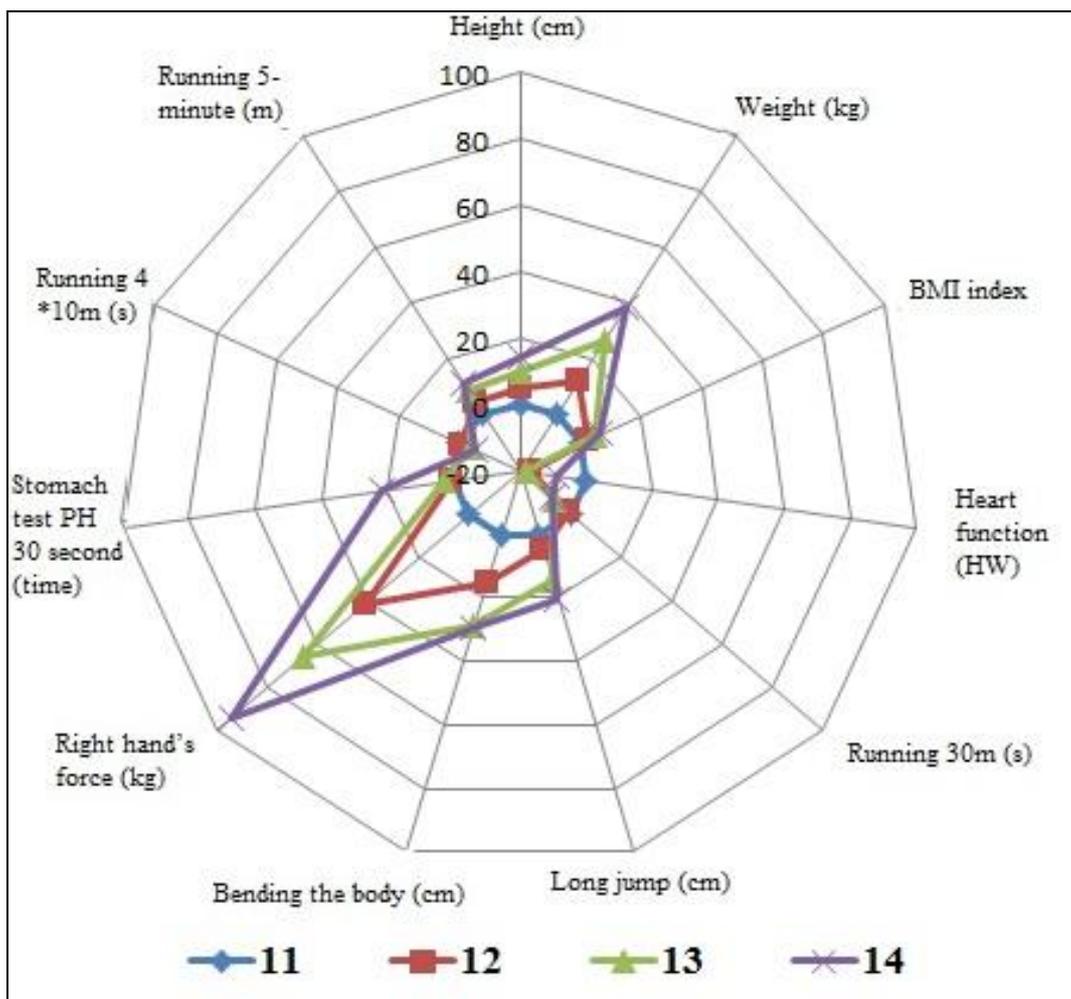


Chart 1: Change development of physical health of male students at 11-14 year olds in Ho Chi Minh City

Results of table 2 and observation of chart 1, if we use the physical health indicators of age 11 as a standard for comparison, we will see all physical health indicators. The difference between the ages 11, 12, 13, 14 varies from -18.44% to 94.37%. In which, the “area” is the largest at age 14, followed by the “area” at age 13, age 12, age 11. The above results again show the physical development of men 11-14 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 11-14 years old tend to develop proportional to age, that is, older age tends to be better than younger age. In contrast, cardiovascular function (14 years) and ductility 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 11 on to 14 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 (14 years) do not develop properly according to age. All physical indicators of all ages 11, 12, 13, 14 differ from -18.44% to 94.37%. In particular, the

"area" of the 14-year-old largest, followed by the "area" of age 13, age 12, age 11.

5. References

1. Duong Nghiep Chi *et al.* Physical fitness of Vietnamese from 6 to 60 years old at the beginning of the 21 st century, Sport and Physical Publishing House, Hanoi. (Vietnamese), 2013,
2. Nguyen Dai Duong *et al.* Evolution of physical health development of high school students from grade 1 to grade 12", Hanoi Sports Publishing House Publishing House. (Vietnamese), 2016.
3. Le Van Lam, Vu Duc Thu. Current situation of physical development of students, students in front of the 21st century, Sports Publishing House, Hanoi. (Vietnamese), 2000,
4. Huynh Trong Khai *et al.* "Studying to develop a system of physical health training standards, based on the assessment of physical fitness, form and function of high school students from 06 to 14 years old, in Ho Chi Minh City. Ho Chi Minh City," Department of Science and Technology City Ho Chi Minh. (Vietnamese), 2011.