

# CONSTITUTIONAL REALITY OF FOURTH- YEAR STUDENTS AT NATIONAL UNIVERSITY OF LAOS

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## Abstract:

The study has selected 11 tests of constitutional evaluation for fourth- year students in National University of Laos. Results of the evaluation show that the constitution of the students is uneven. On such basis, we have developed criteria to assess the constitution for students in the years.

**Key words:** Reality, constitution, students, National University of Laos

## INTRODUCTION

The Party and Government of Lao People's Democratic Republic have paid great attention to the physical education through the Directives and Resolutions to develop the criteria to assess the constitution for students at different levels of education. Laos National University is the place to train human resources of the country. In order to achieve the goals of physical education for students, first of all it is necessary to assess the situation of constitution of students by age and level of education in particular stages.

Assessing the situation of students' constitution is not only to assess students' health and physical strength but also the basis for comparing the development of student's constitutional capacity among areas, countries in the regions and the world. At the same time, the assessment helps to find out the rules of constitutional development by age, which is the scientific basis to develop appropriate, effective content and programs of physical education. From the above reasons, we have conducted the study on "Constitutional reality of fourth-year students at National University of Laos.

## RESEARCH METHODS

By using the methods of analysis and synthesis of references, interview, pedagogical examination, biomedical test and mathematical statistics, the research has identified tests to

assess the constitution and real situation of constitution for the fourth- year students at National University of Laos.

We have conducted the research on 500 fourth- year students at National University of Laos (including 250 males and 250 females). The survey conducted at two times of the beginning and the end of fourth year's semester 1.

## RESULTS AND DISCUSSION

### 1. Selecting tests of assessing constitution for students at National University of Laos

Through references, pedagogical observations, and direct interviews of Lao and Vietnamese experts of physical education, and extensive interviews by questionnaires, we have selected 11 tests of assessing constitution for fourth year students at National University of Laos. There are 6 tests of assessing the physical strength, 3 indexes of physical morphology and 2 indexes of assessing body function.

### 2. Constitutional reality of fourth- year students at National University of Laos

We have used the selected tests to real situation of constitution for the fourth- year students at National University of Laos at the beginning and the end of semester 1. Simultaneously, we have made comparison of the difference between the test results at 2 times. The results presented in Table 1 and Table 2.

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**Table 1. Constitutional reality of fourth- year male students  
at National University of Lao (n = 250)**

| No. | Tests                           | Male                    | Male                 | Comparison |        |
|-----|---------------------------------|-------------------------|----------------------|------------|--------|
|     |                                 | (beginning of semester) | (end of semester)    |            |        |
|     |                                 | $\bar{x} \pm \delta$    | $\bar{x} \pm \delta$ | t          | p      |
| 1   | Height (cm)                     | 164 $\pm$ 5.6           | 164.2 $\pm$ 4.7      | 0.16       | >0.05  |
| 2   | Weight (kg)                     | 58.4 $\pm$ 6.48         | 57.44 $\pm$ 7.1      | 0.52       | >0.05  |
| 3   | Push up for 20 seconds (times)  | 17.4 $\pm$ 4.23         | 18.7 $\pm$ 6.1       | 0.36       | >0.05  |
| 4   | Standing long jump (cm)         | 219 $\pm$ 23.2          | 220.4 $\pm$ 22.3     | 0.19       | >0.05  |
| 5   | Crunches for 30 seconds (times) | 16.2 $\pm$ 4.1          | 17 $\pm$ 4.2         | 0.39       | >0.05  |
| 6   | 30m standing start run (s)      | 5.0 $\pm$ 0.77          | 5.04 $\pm$ 0.73      | 0.04       | >0.05  |
| 7   | Shuttle run 4 x 10m (s)         | 10.9 $\pm$ 1.24         | 10.83 $\pm$ 0.92     | 0.15       | >0.05  |
| 8   | Cooper test for 12 minutes (m)  | 1791 $\pm$ 298.4        | 1788 $\pm$ 259.2     | 0.13       | >0.05  |
| 9   | Vital capacity (liters)         | 469 $\pm$ 104           | 465.4 $\pm$ 104.1    | 0.07       | >0.05  |
| 10  | Quetelet index (g/cm)           | 355.7 $\pm$ 36.8        | 349.5 $\pm$ 39.9     | 2.18       | < 0.05 |
| 11  | Heart working (HW)              | 31.8 $\pm$ 4.1          | 35.3 $\pm$ 5.31      | 1.98       | < 0.05 |

**Table 2. Constitutional reality of fourth- year female students  
at National University of Lao (n = 250)**

| No. | Tests                           | Female                  | Female               | Comparison |        |
|-----|---------------------------------|-------------------------|----------------------|------------|--------|
|     |                                 | (beginning of semester) | (end of semester)    |            |        |
|     |                                 | $\bar{x} \pm \delta$    | $\bar{x} \pm \delta$ | t          | p      |
| 1   | Height (cm)                     | 156 $\pm$ 5.3           | 157 $\pm$ 6.8        | 0.54       | >0.05  |
| 2   | Weight (kg)                     | 46.1 $\pm$ 7.9          | 46.39 $\pm$ 4.4      | 0.27       | >0.05  |
| 3   | Push up for 20 seconds (times)  | 12.2 $\pm$ 4.1          | 14 $\pm$ 3.8         | 2.46       | <0.05  |
| 4   | Standing long jump (cm)         | 154.8 $\pm$ 19.7        | 151 $\pm$ 17.6       | 1.78       | >0.05  |
| 5   | Crunches for 30 seconds (times) | 11.0 $\pm$ 3.7          | 13.6 $\pm$ 4.3       | 2.57       | <0.05  |
| 6   | 30m standing start run (s)      | 6.3 $\pm$ 0.8           | 6.14 $\pm$ 0.66      | 1.93       | >0.05  |
| 7   | Shuttle run 4 x 10m (s)         | 12.3 $\pm$ 1.5          | 11.9 $\pm$ 0.64      | 1.36       | >0.05  |
| 8   | Cooper test for 12 minutes (m)  | 1453.6 $\pm$ 198.5      | 1477.5 $\pm$ 169     | 0.18       | >0.05  |
| 9   | Vital capacity (liters)         | 317.8 $\pm$ 61.2        | 367.5 $\pm$ 43.5     | 1.89       | >0.05  |
| 10  | Quetelet index (g/cm)           | 310.2 $\pm$ 42.5        | 295.6 $\pm$ 25.9     | 1.55       | > 0.05 |
| 11  | Heart working (HW)              | 26.6 $\pm$ 2.4          | 30.6 $\pm$ 1.32      | 2.01       | < 0.05 |

Tables 1 and 2 show that:

The development of fourth- year student's constitution at the National University of Laos is uneven. Specifically, all male and female students have constitutional changes in the tests of semester 1. The most obvious difference presents in test 10 (Quetelet index), test 11 (Heart working) for male and test 3 (Push up), test 5 (crunches), test 11 (Heart working) for female.

In addition, even in the sample set, there is an inconsistency because the standard deviation of

some tests is still high. It proves that among male and female students there are differences between individuals.

For male students, the indexes show decrease such as cooper test (12 minutes), vital capacity. This reflects that the students' strength of endurance tend to go down. Meanwhile the Quetelet index reflecting the body's balance has a significant difference as the weight reduces after a semester of study. The strength index of male student tends to increase shown by the tests (Push up, standing long jump, crunches), the



**Physical education is an effective means to improve physical fitness of pupils and student in schools of all levels. (Photo: Basketball lesson at Bac Ninh Sports University)**

index of heart working is also strictly different.

In contrast, for female students, the indexes show increase such as vital capacity and Cooper test (12 minutes), reflecting better development of strength of endurance than before the semester. Strength increase but uneven, results of push up and crunches get better, while the results of standing long jump get down. Like men, the Quetelet index reflecting the body's balance in female has a difference as the ratio of weight to height changes.

The results of comparing the constitutional reality for male and female students in fourth-year show, the constitution of the students is uneven and different in some indexes. This is a necessary basis for studying the development of general assessment criteria for students in the years to improve the physical education in corresponding with the training program.

## CONCLUSION

By the research methods, we have selected 11 tests of constitutional evaluation for fourth-year students in National University of Laos. The results show that the difference between male and female is uneven at the two times. For male, constitution tends to increase in strength but

decrease in endurance, for female, constitution tends to increase in endurance, strength increase uneven. Especially, both groups have an increase in heart working after one semester of study.

This is the basis for developing the criteria of assessing the constitution for students at National University of Laos in particular and students in Laos in general when the country has not had a uniform system of criteria.

## REFERENCES

1. Ministry of Education and Training (2008), *Regulation on assessment and classification of constitution for students* (issued together with Decision No. 53/2008/QĐ-BGDĐT dated September 18, 2008 by Minister of Education and Training, Viet Nam).
2. Duong Nghiep Chi and coworkers (2004), *Measurement of Sports*, Sports Publishing House, Ha Noi.
4. Nguyen Xuan Sinh (2006), *Curriculum of Research Method on Sports Science*, Sports Publishing House, Ha Noi.

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