



## BUILDING STANDARDS FOR STUDENT PHYSICAL ASSESSMENT FIRST YEAR LAOS NATIONAL UNIVERSITY

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### **Abstract:**

Research to build physical assessment standards for first-year students of Lao National University helps us get the basic information and basis to evaluate teaching process, choose solutions. suitable in the training process, improve students' physical condition to meet learning requirements in new training trends.

**Keywords:** standard, physical, student, Laos National University

### **1. Introduction**

Grasping the importance of financial education for students, many universities across the country, including Laos National University have fully implemented the regulations of the Ministry of Education and Sports regarding the program content. GDTC in Universities. In fact, in teaching at the school, we found that, in the teaching of financial education for students during the lessons, many students still showed weak physical characteristics, poor physical condition, leading to failure to fulfill the set targets of subject, this more or less affects students' learning results and the quality of the school's training.

To accurately determine the physical status of students to not only meet the requirements of improving fitness and developing physical fitness, but also meeting the needs and preferences of students, reducing stress after studying. reasoning in class. Thereby helping students to complete and develop the necessary qualities and competencies, to meet the demanding requirements of society, and to improve the personality of the staff in the future. Therefore, the physical assessment of first-year students of the National University of Laos has then taken appropriate measures to help students define their learning goals, motivations and stimulate their learning needs.

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members, improving the efficiency of financial education to meet output requirements for society.

## 2. Research Methods

In the research process, we have used the following methods: Document reference method, pedagogical observation method, interview method, pedagogical test method and statistical mathematical method. Conducted surveys and assessments on male and female students of Laos National University. Interviewing experts, lecturers from universities in the province of Laos to determine the content of students' physical assessment.

## 3. Research Results

### 3.1 Determine the content of physical assessment for students of Laos National University

Through the analysis and synthesis of documents, we have a system of 9 tests used by many experts and lecturers to evaluate students' physical fitness. The final result of the interview is optimal if there is a high coincidence between two interviews. We conducted two interviews one month apart with the same affirmative or disapproving response. From the results obtained through the interview process, we have selected 9 physical assessment tests with a high number of votes (over 80%) of experts and lecturers.

From the obtained results, we determine the informativeness showing that: All 9/9 tests selected in the research object show a fully informative correlation with ( $|r| > |0.6|$  with  $p < 0.05$ ) and determine the reliability of the tests. Through 2 tests at a very high level (with  $r > 0.80$  to  $0.99$  at the threshold probability  $p < 0.05$ ). This shows that the selected tests show a strong correlation with full reportability, reliable enough and suitable for research subjects as well as practical conditions in the physical assessment for students of Laos National University.

The tests are: Lie on your stomach for 20 seconds (times), Turn on the spot (cm), Lie on your back for 30 seconds (times), Run 30m (s), Run 4x10m (s), Run arbitrarily 12 minutes (m), Corresponding height (cm), HW index, Live capacity (liters).

### 3.2 Develop standards to assess the fitness of first-year students at Lao National University

To evaluate the physical fitness of the students of the National University of Laos. We have tested the pedagogy on 9 selected tests, on that basis, building a physical assessment scale for research subjects in 2 forms of classification and points, namely: Based on the results identified from 9 physical assessment tests, by value, we built a classification table according to 5 levels: Good, Fair, Medium, Weak, Poor. Content with test results of distance, altitude, magnitude, number of times is as large as possible, and vice versa, the results measured by time, the smaller the better.

The scale with test results as large as possible is built as follows:

- <- 1.5 Poor
- 1.5 ~ - 0.5 Weak
- 0.5 ~ + 0.5 Average
- + 0.5 ~ + 1.5 Fair
- > + 1.5 Good

The scale with test results as small as possible is constructed as follows:

- + 1.5 Poor
- + 0.5 ~ + 1.5 Weak
- 0.5 ~ + 0.5 Average
- 1.5 ~ - 0.5 Fair
- 1.5 Good

After the 9-test pedagogical test, we built the scoreboard according to the 5-level classification presented in tables 1, 2.

**Table 1:** Criteria for first-year male student's physical fitness classification Laos National University

No.	Content	Good	Fair	Average	Weak	Poor
1.	Lie on your stomach for 20 seconds (times)	≥19.8	19.7-16.7	16.6-13.5	13.4-10.4	≤10.3
2.	Turn on the spot (cm)	≥250.1	250.0-229.5	229.4-208.7	208.6-188.1	≤188.0
3.	Lie on your back for 30 seconds (times)	≥23.2	23.1-19.3	19.2-15.2	11.2-15.1	≤11.1
4.	Run 30m (s)	≤4.30	4.31-4.82	4.81-5.31	5.32-5.81	≥5.82
5.	Run 4x10m (s)	≤9.6	9.7-10.2	10.3-10.8	10.9-11.4	≥11.5
6.	Run arbitrarily 12 minutes (m)	≥2015	2014-1935	1934-1853	1852-1773	≤1772
7.	Corresponding height (cm)	≥171.9	171.8-166.4	166.3-160.9	160.8-155.4	≤155.3
8.	HW index	≤6.8	6.9-9.6	9.5-12.1	12.2-14.6	≥14.7
9.	Live capacity (liters)	≥5.1	5.0-4.4	4.3-3.6	3.62-2.92	≤2.91

**Table 2:** Criteria for first-year female student's physical fitness classification Laos National University

No.	Content	Good	Fair	Average	Weak	Poor
1.	Lie on your stomach for 20 seconds (times)	≥14.5	14.4-11.9	11.8-9.1	9.0-6.5	≤6.4
2.	Turn on the spot (cm)	≥162.4	162.3-158	157.9-153.4	153.3-149	≤148
3.	Lie on your back for 30 seconds (times)	≥15.8	15.7-12.6	12.5-9.4	9.3-6.2	≤6.1
4.	Run 30m (s)	≤4.9	5.0-5.72	5.73-6.46	6.47-7.2	≥7.1
5.	Run 4x10m (s)	≤ 10.9	11.0-11.2	11.3-11.7	11.8-12.1	≥12.2
6.	Run arbitrarily 12 minutes (m)	≥1524	1523-1463	1462-1401	1400-1340	≤1339
7.	Corresponding height (cm)	≥161.5	161.4-158	157-152.6	152.5-148.2	≤148.1
8.	HW index	≤ 5.4	5.5-7.3	7.2-8.9	9.0-10.6	≥10.7
9.	Live capacity (liters)	≥ 3.94	3.93-3.40	3.39-2.85	2.84-2.31	≤2.30

Based on the C-scale scoreboard (scores from 1 to 10), we built the scoreboard, the results presented in tables 3 and 4.

**Table 3:** Standards of physical fitness based on transcripts for male students first-year Lao National University

No.	Test	Mark									
		1	2	3	4	5	6	7	8	9	10
1.	Lie on your stomach for 20 seconds (times)	<10.4	10.4	11.9	13.5	15.0	16.6	18.1	19.7	21.2	> 21.2
2.	Turn on the spot (cm)	<188.1	188.1	198.4	208.7	219.0	229.4	239.7	250.0	260.3	>160.3
3.	Lie on your back for 30 seconds (times)	<11.2	11.2	13.2	15.2	17.2	19.2	21.1	23.1	25.1	> 25.1
4.	Run 30m (s)	>5.81	5.81	5.56	5.31	5.06	4.81	4.56	4.31	4.06	< 4.06
5.	Run 4x10m (s)	>11.4	11.4	11.1	10.8	10.6	10.3	10.0	9.7	9.5	< 9.5
6.	Run arbitrarily 12 minutes (m)	<1773	1773	1813	1853	1893	1934	1974	2014	2055	> 2055
7.	Corresponding height (cm)	<155.4	155.4	158.1	160.9	163.6	166.3	169.1	171.8	174.5	> 174.5
8.	HW index	<14.6	14.6	13.3	12.1	10.8	9.5	8.2	6.9	5.6	< 5.6
9.	Live capacity (liters)	<2.9	2.9	3.2	3.6	3.9	4.3	4.6	5.0	5.4	> 5.4

**Table 4:** Standards of physical fitness based on transcripts for female students first-year Lao National University

No.	Test	Mark									
		1	2	3	4	5	6	7	8	9	10
1.	Lie on your stomach for 20 seconds (times)	<6.5	6.5	7.8	9.1	10.5	11.8	13.1	14.4	15.8	> 15.8
2.	Turn on the spot (cm)	<149	149.0	151.2	153.4	155.7	157.9	160.1	162.3	164.6	> 164.6
3.	Lie on your back for 30 seconds (times)	<6.2	6.2	7.8	9.4	11.0	12.5	14.1	15.7	17.3	> 17.3
4.	Run 30m (s)	>7.2	7.2	6.82	6.46	6.09	5.73	5.36	5.00	4.63	< 4.63
5.	Run 4x10m (s)	>12.1	12.1	11.9	11.7	11.5	11.3	11.1	11.0	10.8	< 10.8
6.	Run arbitrarily 12 minutes (m)	<1341	1340	1370	1401	1431	1462	1492	1523	1553	> 1553
7.	Corresponding height (cm)	<148.2	148.2	150.4	152.6	154.8	157.0	159.2	161.4	163.6	> 163.6
8.	HW index	<10.6	10.6	9.8	8.9	8.1	7.2	6.4	5.5	4.7	< 4.7
9.	Live capacity (liters)	<2.31	2.31	2.58	2.85	3.12	3.39	3.66	3.93	4.20	> 4.20

On the basis of building a standard scale, we assess the student's fitness by pedagogical test 9 tests on first year male and female students of Laos National University giving results in Table 6.

**Table 6:** Physical situation of the first year students Lao National University

Object	Test	Result		Number of people reached	%
		$\bar{X}$	S		
Male (n=223)	Lie on your stomach for 20 seconds (times)	15.07	3.11	153	68.61
	Turn on the spot (cm)	219.07	20.65	91	40.81
	Lie on your back for 30 seconds (times)	17.23	3.96	104	46.64
	Run 30m (s)	5.06	0.5	142	63.68
	Run 4x10m (s)	10.6	0.54	138	61.88
	Run arbitrarily 12 minutes (m)	1893.53	80.53	182	81.61
	Corresponding height (cm)	163.65	5.47	96	43.05
	HW index	10.81	2.58	137	61.43
	Live capacity (liters)	3.98	0.71	132	59.19
Female (n=223)	Lie on your stomach for 20 seconds (times)	10.51	2.65	119	53.36
	Turn on the spot (cm)	155.70	4.45	128	57.40
	Lie on your back for 30 seconds (times)	11.00	3.15	173	77.58
	Run 30m (s)	6.09	0.73	172	77.13
	Run 4x10m (s)	11.55	0.37	171	76.68
	Run arbitrarily 12 minutes (m)	1431.55	60.9	134	60.09
	Corresponding height (cm)	154.80	4.4	114	51.12
	HW index	8.13	1.7	108	48.43
	Live capacity (liters)	3.12	0.54	114	51.12

Thus, we see, when building the standards according to the classification and the 10-point scale. The test subjects all have results corresponding to the level of physical and concentration is average (from 40, 81 - 81.61% for men and 48.43 - 77.58% for women), so there are still many below average students. Therefore, there should be measures to guide the physical improvement of the students of the National University of Laos.

#### 4. Conclusion

The study has taken steps from which 9 physical assessment tests were selected for first year students of Laos National University. Through the pedagogical test, a 5-level classification table and a C-scale transcript have been built to assess students' physical fitness. The situation assessment step shows that there are still many students who have not reached the average level. It is necessary to have solutions to educate and improve the fitness for students of the National University of Laos to meet new condition.

### **Conflict of Interest Statement**

The authors have no conflicts of interest to declare. All co-authors have seen and agree with the contents of the manuscript and there is no financial interest to report. We certify that the submission is original work and is not under review at any other publication.

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