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## Some teaching solutions aimed at improving general fitness for first-year students at tan trao university

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### Abstract

This article utilizes methods of synthesis and analysis of relevant documents, pedagogical observation methods, interview methods, and relies on evaluating the current situation of physical education at Tan Trao University to propose some teaching measures aimed at improving overall physical fitness for first-year students. The research results have proposed 5 teaching solutions to enhance the general fitness of first-year students at Tan Trao University.

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### 1. Introduction

Enhancing the quality of physical education in universities is not only an urgent requirement but also a practical necessity for expanding and developing mass sports, aiming to attract young generations to voluntarily participate in physical training. This meets the demand for high-quality human resources and the requirement to develop well-rounded individuals to meet the country's industrialization and modernization efforts.

In recent years, at Tan Trao University, physical education has always been a matter of concern and emphasis. However, the training process at the university still faces many limitations in terms of students' physical fitness, failing to meet the evaluation standards of the curriculum.

This article is based on the evaluation of the current situation of physical education and students' physical fitness to conduct research and propose teaching solutions aimed at improving the general physical fitness of first-year students at Tan Trao University.

### 2. Research Methods

The article employs the following research methods: synthesis and analysis of relevant documents, pedagogical observation, and interview methods.

### 3. Research Results

#### 3.1. Current situation of the physical education program for students at Tan Trao University

The physical education program at Tan Trao University follows the regulations of the Ministry of Education and Training, comprising 90 periods divided into 3 semesters corresponding to 7 credits. Each semester, with 1 credit equating to 30 periods, is further divided into 2 specific stages:

Stage 1 includes compulsory subjects: 100m sprint; Middle-distance run (800m for females, 1500m for males).

Stage 2 involves choosing 1 out of 8 elective sports: Football, Badminton, Martial Arts, Volleyball, Table Tennis, Athletics, Basketball, Swimming.

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Internal curriculum teaching content comprises 2 periods per week, while extracurricular activities during the semester are organized by students themselves in groups or by class to review, reinforce, and improve techniques and physical

qualities. Each course includes assessments based on predetermined criteria set by the university and the department. (see Table 1).

**Table 1:** Content of the Physical Education Program at Tan Trao University

| No.   | Name of the course | Total credits | Theory | Practice | Previous Course | Compulsory | Elective | Knowledge Block     |
|---|--------------------|---------------|--------|----------|-----------------|------------|----------|---------------------|
| <b>The total number of compulsory courses</b>                           |                    |               |        |          |                 |            |          |                     |
|   | 04                 | 26            |        |          |                 |            |          |                     |
| 1   | Athletics          | 2             | 04     | 26       |                 | x          |          | Internal curriculum |
| <b>The total number of elective courses (choose 1 out of 8 courses)</b> |                    |               |        |          |                 |            |          |                     |
|   | 04                 | 41            |        |          |                 |            |          |                     |
| 1   | Badminton          | 3             | 04     | 41       |                 |            | x        | Extracurricular     |
| 2   | Football           | 3             | 04     | 41       |                 |            | x        | Extracurricular     |
| 3   | Swimming           | 3             | 04     | 41       |                 |            | x        | Extracurricular     |
| 4   | Volleyball         | 3             | 04     | 41       |                 |            | x        | Extracurricular     |
| 5   | Martial Art        | 3             | 04     | 41       |                 |            | x        | Extracurricular     |
| 6   | Athletics          | 3             | 04     | 41       |                 |            | x        | Extracurricular     |
| 7   | Basketball         | 3             | 04     | 41       |                 |            | x        | Extracurricular     |
| 8   | Table Tennis       | 3             | 04     | 41       |                 |            | x        | Extracurricular     |

**3.2. Current State of Physical Facilities at Tan Trao University**

The physical infrastructure, equipment, and training grounds, as well as the arena serving for teaching and student activities, are insufficient. The university has 2 football fields, two volleyball courts, and one sports hall, with an average number of students ranging from 15-20 per class.

Therefore, the most densely used areas are those for compulsory activities (athletics 1). Hence, there is a need to expand teaching facilities to ensure effective learning for students and allocate time for the grounds to serve extracurricular activities and student competitions. The results of the survey on physical facilities serving the Physical Education subject are presented in Table 2.

**Table 2:** Current State of Physical Facilities Serving Physical Education at Tan Trao University

| No. | Sports Ground and Equipment                 | Quantity                   | Number of classes on the grounds | Quality  |              |
|-----|---|----------------------------|----------------------------------|----------|--------------|
|     |   |                            |                                  | Achieved | Not Achieved |
| 1   | Football field combined athletics           | 1                          | 2                                | X        |              |
| 2   | Volleyball court                            | 1                          |                                  | X        |              |
| 3   | Basketball court                            | 1                          |                                  | X        |              |
| 4   | Pull-up bar and parallel bars practice area | 1                          |                                  | X        |              |
| 5   | Arena                                       | 1                          | 2                                | X        |              |
| 6   | Weightlifting area                          | 1                          | 2                                | X        |              |
| 7   | Football                                    | 5 students per 1 ball      |                                  | X        |              |
| 8   | Badminton racket                            | 5 students per 1 racket    |                                  | X        |              |
| 9   | 3kg dumbbell                                | 5 students per 1 dumb bell |                                  | X        |              |
| 10  | 5kg dumbbell                                | 5 students per 1 dumb bell |                                  | X        |              |

From Table 3.2, we can observe that the physical facilities of the university are quite sufficient. However, due to the increasing demand for student learning in recent years, the frequency of equipment use is from Monday to Friday. This situation establishes a solid foundation for effective teaching and training in physical education in general and the development of physical fitness

specifically for university students.

**3.1.3. Current State of the Physical Education Teaching Staff at Tan Trao University**

The current status of the physical education teaching staff at the university is presented in Table 3.

**Table 3:** Current Status of the Physical Education Teaching Staff at Tan Trao University

| Academic qualifications |          |           | Sex  |        | Age   |       |       | The average number of teaching periods per week |
|-------------------------|----------|-----------|------|--------|-------|-------|-------|---|
| Master                  | Bachelor | Associate | Male | Female | 27-35 | 35-45 | 45-50 |   |
| 13                      | 1        | 0         | 12   | 2      | 07    | 07    | 0     | 10 periods/1 week                               |

Based on Table 3.3, it is evident that the university has 14 physical education lecturers (12 male and 2 female), with 99% of them holding a master's degree or higher. Most of the lecturers at the university have nearly 10 years of teaching experience. Therefore, if the lecturers' capabilities are fully utilized, the quality of Physical Education teaching at the university will be highly effective.

**3.1.4. Current Status of the General Fitness Level of First-year Students at Tan Trao University**

To assess the general fitness level of the research subjects, the study conducted a survey on the physical capacity of students through the content and standards of physical training prescribed by the Ministry of Education and Training (according to Decision No. 53/2008/QD-BGDDT dated

September 18, 2008, by the Minister of Education and Training). The data collected during the survey were directly examined and obtained from the test results stored at the university's Physical Education department. The test content

includes: Handgrip Strength (kg); Lie on your back with sit-ups/30s (times); Jump away in place (cm); Running 30m high starting (s); Running the shuttle 4x10m(s); Running for 5 minutes depending on your strength (m).

**Table 4:** Evaluation Results of General Fitness Level of Students at Tan Trao University (n=955)

| No. | Test content   | Semester 1 (n=302) |     |        | Semester 2 (n=318) |     |        | Semester 3 (n=335) |     |        |
|-----|--|--------------------|-----|--------|--------------------|-----|--------|--------------------|-----|--------|
|     |  | Standard           | n   | Rate % | Standard           | n   | Rate % | Standard           | n   | Rate % |
| 1.  | Handgrip Strength (kg).                              | ≥40.70             | 200 | 66.22  | ≥41.40             | 218 | 68.55  | ≥42.00             | 234 | 69.85  |
| 2.  | Lie on your back with sit-ups/30s (times)            | ≥16                | 139 | 46.02  | ≥17                | 152 | 47.63  | ≥18                | 167 | 49.70  |
| 3.  | Jump away in place (cm)                              | ≥205               | 214 | 70.86  | ≥207               | 245 | 76.97  | ≥209               | 262 | 78.14  |
| 4.  | Running 30m high starting (s)                        | ≤5.80              | 147 | 48.67  | ≤5.70              | 157 | 49.21  | ≤5.60              | 168 | 50.00  |
| 5.  | Running the shuttle 4x10m (s)                        | ≤12.50             | 124 | 41.05  | ≤12.40             | 147 | 46.06  | ≤12.30             | 160 | 47.60  |
| 6.  | Running for 5 minutes depending on your strength (m) | ≥940               | 97  | 32.11  | ≥950               | 115 | 35.96  | ≥960               | 137 | 40.89  |

**Table 5:** Summary of Fitness Standard Achievement Results of Students at Tan Trao University (n = 955)

| No. | Test content   | Pass |        | Fail |        |
|-----|--|------|--------|------|--------|
|     |  | n    | Rate % | n    | Rate % |
| 1.  | Handgrip Strength (kg).                              | 658  | 68.90  | 297  | 31.09  |
| 2.  | Lie on your back with sit-ups/30s (times)            | 457  | 47.85  | 498  | 52.14  |
| 3.  | Jump away in place (cm)                              | 728  | 76.23  | 227  | 23.76  |
| 4.  | Running 30m high starting (s)                        | 474  | 49.63  | 481  | 50.36  |
| 5.  | Running the shuttle 4x10m (s)                        | 433  | 45.17  | 522  | 54.65  |
| 6.  | Running for 5 minutes depending on your strength (m) | 353  | 36.96  | 602  | 63.03  |
|     | Average  |      | 54.89  |      | 45.05  |

Through the assessment of the general physical fitness status of first-year students at Tan Trao University, it is evident that their fitness levels meet the evaluation standards outlined in Decision 53 but remain low. This situation adversely affects their performance in the physical education subject. The reasons behind this status are multifaceted, including students' lack of prioritization of Physical Education and the significant time allocation to main subjects. Therefore, proposing various teaching solutions to enhance the overall physical fitness of first-year students at Tan Trao University is imperative and practical.

### 3.2. Some Measures to improve general fitness for first-year students at Tan Trao University.

#### 3.2.1. Designing the class ensuring a variety of activities

\* **Objective of the Measure:** To create a diverse and stimulating environment in which students can enhance their general fitness through engaging and suitable physical activities.

#### Contents of the Measure

Determine students' physical fitness needs and levels through discussions, surveys, or initial fitness assessments.

Based on the analysis of needs, design a varied learning program, including cardio activities, strength enhancement, flexibility, and stability.

Design the class by carefully selecting activities that align with the goals and proficiency levels of students, such as running, cycling, yoga, weightlifting, etc.

Guide students in performing exercises correctly and safely, while providing support and adjustments as necessary.

#### 3.2.2. Utilizing Diverse Teaching Tools

**Objective of the Measure:** To provide students with a diverse and stimulating learning environment where they can enhance their general fitness through the use of modern and varied teaching tools.

#### Contents of the Measure

Provide instructional videos on various exercises and training methods to help students better understand how to perform exercises correctly and with proper technique.

Develop mobile applications offering workout exercises, personalized training schedules, and exercises that can be done anywhere, making it easier for students to manage and follow their own workout routines.

Create educational electronic games about physical fitness, sports, and health to encourage students to actively participate in physical activities.

Use online resources such as video conferencing and interactive software to organize online physical education and training sessions.

Utilize smart devices like smartwatches and smartbands to track students' physical activities and provide feedback so they can adjust and improve their fitness levels.

#### 3.2.3. Selecting and evaluating effective exercises to develop general fitness for first-year students

**Objective of the Measure:** To select suitable exercises for developing fitness for first-year students at Tan Trao University.

#### Contents of the Measure

Based on the course curriculum, facilities, and equipment available at the university, select exercises that are appropriate in content and form for the goals and requirements of physical education. Ensure that exercise techniques are suitable for the structure of the exercise, and gradually increase the exercise load. Students' physical fitness should be developed quickly, optimizing the recovery process. Based on the above criteria, some exercise groups that can be applied in teaching include:

**Quickness development exercise group:** 1/ Running 60m speed; 2/ Running 30m high starting; 3/ High knee running

8-10 seconds, then sprint 20 m (3 times); 4/ Maximum speed skipping (45 seconds); 5/ Running at variable speed 50m fast, 50m slow for a distance of 400m;

**Strength development exercise group:** 1/ 20m leapfrog x 2 times; 2/ Single-leg squats (20 reps); 3/ High knee jumps on sand at moderate speed (25 seconds); 4/ Stretching on the stall barre; 5/ Barbell back squat; 6/ Alternating step up jump (1 minute 30 seconds); 7/ Lying leg raises (25 reps).

**Endurance development exercise group:** 1/ Running for 7 minutes depending on your strength; 2/ Running cross-country 3000m; 3/ Running variable speed over 400m (100m fast, 100m slow); 4/ Running a 8 x 50m relay.

**Cleverness development exercise group:** 1/ Leg kicks (15 reps); 2/ Sit with your legs straight and your body deeply bent (10 reps); 3/ Leading the ball relay (15 m x 2 times).

**General physical fitness development games:** 1/ Cat and mouse chase; 2/ Tug of war; 3/ Capture the flag; 4/ Rolling ball relay; 5/ Fishing net setting; 6/ Which team hops quickly?; 7. Blind man's bluff

### 3.2.4. Implementing Periodic Evaluation and Feedback

**Objective of the Measure:** To provide students with an opportunity to assess their progress in developing physical fitness and provide constructive feedback to adjust and improve their training programs.

#### Contents of the Measure

Before commencing the training program, conduct an initial physical fitness assessment to determine the current level of students. Indices may include cardio intensity, muscle strength, flexibility, and stability.

Establish a regular assessment plan, such as monthly or bi-monthly assessments, to measure students' progress in physical fitness development.

Utilize physical fitness measuring tools such as BMI scales, flexibility gauges, and muscle strength testers to evaluate students' progress.

Organize periodic physical fitness tests to assess specific physical fitness indices of students, including running tests, time-based activities, or specific exercise performance.

Based on assessment results, provide detailed feedback and guidance to students for improving and adjusting their training programs.

Set specific and achievable goals for each student based on assessment results, providing them with clear direction and encouragement to continue their efforts.

Monitor students' progress over time and provide continuous feedback to ensure they are progressing in the right direction and achieving their set goals.

### 3.2.5. Enhancing exchange and collaboration with experts through extracurricular activities

**Objective of the Measure:** To create an opportunity for students to interact and collaborate with experts in the fields of physical education, sports, and health to enhance their knowledge, skills, and physical fitness.

#### Contents of the Measure

- Organize discussions and seminars with the participation of experts in the fields of physical education, sports, and health to share knowledge, experiences, and effective training methods.
- Conduct workshops and specialized training sessions on topics such as nutrition, training techniques, and injury

prevention, helping students grasp new knowledge and practical skills.

- Organize extracurricular activities such as sports competitions, regular fitness sessions, or outdoor activities like hiking, swimming, to enhance students' physical fitness and sports skills.
- Create opportunities for students to meet and interact directly with experts through seminars, talks, or training sessions.
- Build long-term collaborative relationships with experts and organizations in the field of physical education and sports, providing students with opportunities for internships and direct work experience in real-world environments.

### 4. Conclusion

The study has conducted a survey on the current situation and proposed 5 teaching solutions to improve general physical fitness for first-year students at Tan Trao University, including: 1/ Designing the class ensuring a variety of activities; 2. Utilizing diverse teaching tools; 3/ Selecting and evaluating effective exercises to develop general fitness for first-year students; 4/ Implementing periodic evaluation and feedback; 5/ Enhancing exchange and collaboration with experts through extracurricular activities. The application of these measures is necessary and crucial in enhancing the physical fitness of first-year students at Tan Trao University.

### 5. Acknowledgement

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### 6. References

1. Lewis J. Is the 'hard bargaining' image of the Council misleading? The Committee of Permanent Representatives and the local elections directive. *JCMS: Journal of Common Market Studies*. 1998;36(4):479-504.
2. Ministry of Education and Training. Regulation 53/2008/QĐ-BGDĐT on the Assessment and Classification of Physical Fitness for Students; c2008.
3. Ministry of Education and Training. Decision No. 14/2011/QĐ-BGD&ĐT on the issuance of Regulations on Physical Education and School Health on; c2001.
4. Duong NC, Tran DD, Ta HH, Van ND. Measurement in Sports, Sports Publishing House, Hanoi; c2004.
5. Dong VT, Le AT. Theory and Methods of Physical Education, Sports Publishing House, Hanoi; c2000.
6. Le VL, Vu DT, Nguyen TH, Vu BH. The Current Situation of Physical Development of Vietnamese Students on the Eve of the 21st Century, Hanoi Publishing House; c2000.
7. Loan NM, Dao H. Theory and Methods of Physical Education, Vietnam Education Publishing House, Hanoi; c1997.
8. Luyen NV. Research on the application of exercises to improve general fitness for students of Vinh University of Technical Education, Master's thesis in education; c2008.
9. Inter-ministerial Circular of Ministry of Education and Training and General Department of Physical Training and Sports No. 04-93 on strengthening and improving the quality of Physical Education and Sports for students on; c1993.

10. Tuan TA. Physical Education Textbook, University of Education Publishers, Hanoi; c2003.
11. Yen TQ. President Ho Chi Minh with Sports, Sports Publishing House, Hanoi; c2003.
12. Platonov VN. Modern Sports Training System, Health Publishing House, Hanoi; c1980.