Building solutions to improve physical strength for hue university students Vietnam

Dr. Hung Viet Pham and Dr. Hai Hoang

Abstract
By regular scientific research methods to assess the causes of physical condition of Hue university students, as a basis for building appropriate solutions to improve physical strength for Hue University students, contributing to improving teaching physical education quality for students, good service for learning and research in the school.

Keywords: Solution, improve physical strength, Hue University students

1. Introduction
Hue University, Vietnam is one of three key regional universities in training staff serving the Central region, the Central Highlands and the whole country. Every year, Hue University trains about 40,000 students in different subjects such as Education, Medicine, Agriculture, Forestry, Science, Economics. Therefore, the comprehensive improvement of the quality of the team Prospective staff is always identified by the school as a very important position. In particular, the physical development for students of Hue University is always evaluated as a key task to well serve their academic and later tasks.

Through the actual situation of physical assessment of Hue University students [5, 6] shows that Hue University students have uneven physical strength, the percentage of students who do not meet the general fitness evaluation standards of the Ministry of Education and Training still high (<40%) proves that the general physical strength has not met the requirements of the Ministry of Education and Training. Therefore, the need to conduct an assessment of the actual situation and develop physical enhancement solutions for Hue University students is very urgent.

2. Materials and methods
To solve the task of the topic in the research process, the thesis has used the following main research methods: Methods of document analysis and synthesis; Methods of interview, seminar; Statistical mathematical methods.

3. Results & Discussion
3.1 The cause of the physical condition of students of Hue University.
In order to find the cause, the topic has organized a seminar with the purpose of understanding the causes and solutions to improve the physical strength of Hue university students. Through the Workshop, after having been discussed by experts, managers, students, the thesis has gathered 10 causes leading to physical condition that has not met the Ministry's requirements and of Hue university students.

With the above 10 causes, the topic interviewed two subjects, namely lecturers, managers (teachers) and students about the influence level of the above causes. Survey results are presented in the following table 1
Table 1: Causes of physical condition of students - University students

<table>
<thead>
<tr>
<th>No</th>
<th>Causes</th>
<th>Assessor</th>
<th>Influence level</th>
<th>χ²</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Students are not aware of the role of physical strength</td>
<td>Teacher (n=32)</td>
<td>7(21.88%)</td>
<td>25(78.12%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Student (n=385)</td>
<td>144(37.4%)</td>
<td>241(62.6%)</td>
</tr>
<tr>
<td>2</td>
<td>Teachers have not focused on physical development for students</td>
<td>Teacher (n=32)</td>
<td>10(31.25%)</td>
<td>22(68.75%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Student (n=385)</td>
<td>73(18.96%)</td>
<td>312(81.04%)</td>
</tr>
<tr>
<td>3</td>
<td>Service facilities are incomplete</td>
<td>Teacher (n=32)</td>
<td>12(37.5%)</td>
<td>20(62.5%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Student (n=385)</td>
<td>80(20.78%)</td>
<td>305(79.22%)</td>
</tr>
<tr>
<td>4</td>
<td>Students rarely practice extracurricular</td>
<td>Teacher (n=32)</td>
<td>3(9.38%)</td>
<td>29(90.62%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Student (n=385)</td>
<td>57(14.81%)</td>
<td>328(85.19%)</td>
</tr>
<tr>
<td>5</td>
<td>The physical educational program is not reasonable</td>
<td>Teacher (n=32)</td>
<td>8(25%)</td>
<td>24(75%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Student (n=385)</td>
<td>89(23.12%)</td>
<td>296(76.88%)</td>
</tr>
<tr>
<td>6</td>
<td>Climatic weather conditions are extreme</td>
<td>Teacher (n=32)</td>
<td>7(21.88%)</td>
<td>25(78.13%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Student (n=385)</td>
<td>93(24.16%)</td>
<td>292(75.84%)</td>
</tr>
<tr>
<td>7</td>
<td>Nutrition is not enough for students to exercise</td>
<td>Teacher (n=32)</td>
<td>11(34.38%)</td>
<td>21(65.63%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Student (n=385)</td>
<td>295(76.62%)</td>
<td>90(23.38%)</td>
</tr>
<tr>
<td>8</td>
<td>Rest and exercise regime is not reasonable</td>
<td>Teacher (n=32)</td>
<td>14(43.75%)</td>
<td>8(56.25%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Student (n=385)</td>
<td>287(74.55%)</td>
<td>98(25.45%)</td>
</tr>
<tr>
<td>9</td>
<td>Pressure from other subjects to the practice of students</td>
<td>Teacher (n=32)</td>
<td>16(50%)</td>
<td>16(50%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Student (n=385)</td>
<td>115(29.87%)</td>
<td>270(70.13%)</td>
</tr>
<tr>
<td>10</td>
<td>Physical strength of students starting college is too weak</td>
<td>Teacher (n=32)</td>
<td>6(18.75%)</td>
<td>28(81.25%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Student (n=385)</td>
<td>201(52.21%)</td>
<td>184(47.79%)</td>
</tr>
</tbody>
</table>

Through the table 1 has the following comment:
- Among 10 causes, there are 5 causes that both subjects have unanimously assessed the level of influence χ² <3.84 at P> 0.05. Those are the main reasons such as: "Students are not aware and self-training physical strength", "Teachers have not focused on developing physical strength for students", "Students have little extracurricular training", "Physical education programs are not reasonable,"", Extreme climatic weather conditions ". There are 5 reasons that the two subjects assessed the heterogeneity at the threshold P <0.05, proving that the influence level is not clear so determining is not the cause of much influence.

3.2. Building solutions to improve physical strength for students of Hue University

3.2.1 Choose a solution
From the status of physical strength assessment [5, 6] and factors affecting the fitness improvement of Hue University students [3], at the same time, refer to the documents [1, 4]. The thesis has synthesized 10 solutions (details in table 2) to improve the fitness of the research subjects.

Based on the results of interviews with leaders, managers, educators who are currently directly involved in the management and teaching of subjects of physical education in the Faculty of Physical Education-Hue University, as well as in the Hue Universities and the organization of seminars at Faculty 0 Physical Education - Hue University in April 2018, the topic selected and developed detailed contents for physical development solutions for Hue university students. Interview results are presented in Table 2:

Table 2: Results of interviews with experts and experts solutions to improve physical fitness for university students (n = 30)

<table>
<thead>
<tr>
<th>No</th>
<th>Solution</th>
<th>Agree</th>
<th>Disagree</th>
<th>χ²</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Education to raise awareness about the position of physical education and school sports for the goals of physical development for students</td>
<td>26</td>
<td>4</td>
<td>16.13</td>
</tr>
<tr>
<td></td>
<td>Innovating fitness teaching method towards positive direction, developing the initiative and creativity of students in physical education classes.</td>
<td>17</td>
<td>13</td>
<td>0.53</td>
</tr>
<tr>
<td>3</td>
<td>Diversify the content and form of extracurricular sports activities in the direction of closely linking with the on-the-job teaching and sticking to the physical educational objectives.</td>
<td>15</td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>Developing plans and administering professional training and pedagogy for teachers.</td>
<td>20</td>
<td>10</td>
<td>3.33</td>
</tr>
<tr>
<td>5</td>
<td>Innovating organization of physical education according to the classification of health, physical strength and aptitude of students</td>
<td>18</td>
<td>12</td>
<td>1.2</td>
</tr>
<tr>
<td>6</td>
<td>Strengthen competition activities - organize competitions with many contents on the basis of creating conditions for each student to participate</td>
<td>19</td>
<td>11</td>
<td>2.13</td>
</tr>
<tr>
<td>7</td>
<td>Renovating, purchasing, supplementing equipment, upgrading technical and material facilities, service ground and training conditions.</td>
<td>14</td>
<td>1</td>
<td>6.66</td>
</tr>
<tr>
<td>8</td>
<td>Establishing sports clubs for students to practice internal and extracurricular Increase the amount of exercise through physical exercises to develop the fitness of students</td>
<td>26</td>
<td>4</td>
<td>16.13</td>
</tr>
<tr>
<td>9</td>
<td>Increase the amount of exercise through physical exercises to develop the fitness of students.</td>
<td>24</td>
<td>6</td>
<td>10.8</td>
</tr>
<tr>
<td>10</td>
<td>Organize the examination and assessment of students' fitness according to the provisions of 53/2008 / QD-BGDDT</td>
<td>30</td>
<td>0</td>
<td>30</td>
</tr>
</tbody>
</table>
The results in Table 2 obtained 5 solutions highly selected by experts (p <0.05), including:
1. Renovating, purchasing, supplementing equipment and upgrading technical and material bases, service grounds and training conditions.
2. Establishing sports clubs for students to practice internal and extra-curricular.
3. Education to raise awareness about the position of education and school sports for the goals of physical development for students.
4. Increase the amount of exercise through physical exercises to develop the fitness of students.
5. Organize the examination and assessment of students' fitness according to the provisions of 53/2008 / QD-BGDĐT.

3.2.2 Building content of solutions to improve physical strength for Hue university students

3.2.2.1 Solution 1. Renovating, purchasing, supplementing equipment and upgrading material and technical facilities, service grounds and training conditions.
Purpose: To upgrade and renovate facilities, training ground to ensure necessary conditions for the main teaching, as well as extra-curricular activities of students' sports.
Content of the solution: Conducting renovation, repair and upgrading of facilities for training: yards, practice rooms, training tools ... so that we can make the most of the physical conditions of the training center. The school serves extra-curricular teaching and extra-curricular activities for sports. Develop a plan to use the yard and gymnasium for each exercise subject and regulations on equipment use.
Recommendations Faculty leaders and Board of Hue University in the construction planning and development of the Faculty need to ensure there is a plan to build, renovate and upgrade existing training grounds.
Repairing and buying new equipment and tools in service of teaching and exercising physical education during regular class hours, as well as conducting extracurricular activities with sufficient quantity and ensuring quality standards such as: equipment high-jump equipment and devices; equipment and tools for the elective sport (badminton, shuttlecock ...); equipment, training tools of some sports are students interested in training for extra-curricular activities (badminton table tennis ...).
Regularly check and repair the lighting system for yards, gyms ...
Create conditions for cadres, teachers and students to borrow training tools and equipment, open a gym ... to enhance the extracurricular movement.
Applying technical facilities during training and competition is a very necessary solution to improve the process of detecting and correcting movement techniques for students.
Select suitable training time and place for students to minimize the adverse effects of weather and climate, creating the best training conditions for students.

The coordinating units perform
Faculty leaders and Hue University Board of Directors direct the approval of the plan.
Administrative Group and Relevant Committees of Hue University: Organize the implementation after the decision of the Hue University's Board of Directors. Departments and sports clubs are self-governing and have the function of managing, using and developing usage plans. The Training - Science - International Cooperation team and the lecturer arrange the schedule and create the most favorable training conditions for students.

3.2.2.2 Solution 2. Establish sports clubs for students to practice internal and extra-curricular.
- Purpose: In order to meet the practical needs of students, improve the efficiency of studying regular physical education hours, achieve the standards of physical training prescribed by the Ministry of Education and Training, and achieve high results in exams. play sports at local competitions, organized by industry.
- Content of the solution: Propaganda to raise awareness about the type of practice activities, sports competitions To abide by the direction of the Party Committees and the Leaders of the Faculty, to set up the Management Board of the sports club, to have specific regulations and programs.
Organize inter- and extracurricular activities, contribute to perfecting the learning content of the main lesson in physical training subject and training the standards of physical training.
Organizing the construction of school-wide sports clubs among staff, lecturers and students.
Build teams of delegates to practice and compete regularly, attracting students to cheer.
Establishing a process of registering for a subject of education in a club
- The units direct and coordinate the implementation: The Faculty Board of Directors is the standing and organizing organization, directing the working groups and departments in the Faculty.
For clubs, the Head of Departments has a club that runs the club under the direction of the Faculty Board.
- Form of organizing training: The time is from 7 am to 21 pm, all days of the week, the time is 100 minutes

3.2.2.3 Solution 3: Education to raise awareness about the position of education and school sports for the goals of physical development (health, fitness and related knowledge) and ethical education, building a healthy lifestyle and actively advocating for students.
- Purpose: To propagate to raise awareness and responsibility of school leaders, mass organizations, and relevant functional departments of the school; as well as propagandizing and educating to raise students' learning awareness, helping to realize the position and role of physical training and sport training in order to improve health and build a healthy lifestyle.
- Content of the solution: Thoroughly understand for managers and lecturers who have a proper awareness about the objectives of the physical education: It is necessary to have a detailed, specific plan and practical, effective measures in the deployment, propaganda and advocacy education on the implementation of contents, requirements, goals, regulations and guiding documents of the Party and the State on education and training activities.
Do well the monitoring and supervision of awareness raising on physical education. It is necessary to make each lecturer aware of their dual duties: Just perform the task of educating, educating, developing, helping students improve their physicality and improve their health; at the same time, lecturers must train their own ethical qualities, self-study to improve their professional qualifications and pedagogical capacity, ensuring the science, efficiency and quality in the public education.
Collaborate with related forces through diverse activities during school and formal time, helping students to be aware of the study position and tasks, to create conditions for students to exchange, learn, raise awareness, motives, and positive attitudes to participate in physical education, thereby creating a demand for participating in physical training and sports.

Encourage and create conditions to enhance the cultural, arts and sports activities of students in the whole school.

- **The coordinating units organize the implementation:** All levels of Party Committee, Board of Directors of Hue University Sports Association. The training- Science-International cooperation coordinate, supervise the implementation. The Departments in the Department of Education and Training and the clubs preside over the implementation.

- **Forms of organization of implementation:** Organize propaganda on internal media in the Faculty (such as loudspeakers, mass meetings of the Faculty, theoretical and practical lessons ...). Mobilize exemplary lecturers to actively participate in sports practice to attract students to raise awareness and participate in practice.

Strengthen extracurricular training activities and sports competitions within Hue University.

### 3.2.2.4 Solution 4. Increase the amount of exercise through physical exercises to develop physical strength for students.

- **Purpose:** Improve the fitness of students through physical exercises.

- **Content of the solution:** Depending on the training tasks of each lesson plan, lecturers adjust and increase the amount of exercise through physical exercises to suit the physical development of students.

**Specific content:** During the training process (at the basic part of the regular physical education and extracurricular training session), divide the trainees into small groups, make the most of the existing yards and training equipment, ensuring that students turn to participate in the highest training. Strengthening the content, means of teaching and practicing (general exercises, specialties) in the parts of the lesson plan.

**Specifically:** Strengthening the boot, increasing the volume and intensity of the general exercises, expertise in the basic part, the fitness session of the training session that is suitable for the object.

Improve the form of organization of training: Strengthen the practice forms of group exercises, group coordination exercises.

The coordinating units organize the implementation:

- Department of Management Department directs the implementation.

- The training- Sience- International Cooperation Team monitors the implementation.

- Departments managing faculty and expertise.

- Form of organization of implementation:

Promulgate guidelines for renewing the context, methods and means of teaching in the main curriculum. Organize seminars, innovate teaching methods, build teaching content (on the basis of following the curriculum as prescribed).

Organize training, pilot teaching, monitoring - checking and evaluating effectiveness. Organize mass deployment when assessing the effectiveness of the solution.

### 3.2.2.5 Solution 5. Organize the examination and assessment of students' fitness according to the regulations of 53/2008 / QD-BGDĐT [2],

- **Purpose:** To ensure that students are assessed physically according to the regulations of 53/2008 / QD-BGDĐT, students are more aware in training fitness assessment according to the prescribed standards.

- **Content of the solution:** Organize an annual fitness assessment for university students according to the regulations of 53/2008. Thereby evaluating the physical training of students and the teaching of pedagogical education of lecturers in order to improve the fitness of Hue university students.

- **Organization of implementation:** Leadership of the Faculty develops a plan to test and assess students' fitness according to the regulations of 53/2008 / QD-BGDĐT at the end of the period. Regulating the grading of physical fitness is the condition for the completion of the student's curriculum.

Departments and lecturers carry out the physical assessment at the end of the school year for students.

### 5. Conclusions

Through the research process, five main reasons have been identified affecting the physical development status of Hue University students. Combining physical condition and influencing factors as a basis for us to build 5 appropriate solutions to improve physical fitness for Hue University students, thereby contributing to improving the quality of staff training. Ministry for the study and construction of the country in the future.

### 6. References


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7. Source of the paper: The article is excerpted from ministerial-level scientific topic "Some solutions to improve physical strength for students of Hue University “Main member topic: Dr. Pham Viet Hung, 2019.