

# SELECTING SUPPLEMENTARY PROFESSIONAL EXERCISES TO FACILITATE VAULTING GYMNASTICS TECHNIQUE FOR SECOND-YEAR SPECIALIZED STUDENTS IN PHYSICAL TRAINING OF HANOI UNIVERSITY OF SPORTS AND PHYSICAL EDUCATION

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## Abstract:

Based on scientific basis, pedagogical observation, video recording, interviews with teachers, experts and Pixela technology application, the topic has selected 12 supplementary exercises to complete the vaulting gymnastics technique for male 2<sup>nd</sup> year students in Hanoi University of Sports and Physical Education.

**Keywords:** Supplementary exercises, professional supplementary training, vaulting gymnastics, horse jumping technique, students, physical training, second-year students, Hanoi University of Sports and Physical Education.

## INTRODUCTION

Physical Education (P.E) is a compulsory basic subject for both intensive students and general students in the training system of Hanoi University of Sports and Physical Education. For male 2<sup>nd</sup> year intensive fitness students, the compulsory content of the examination for the module includes: Free gymnastics, single bar, vaulting and parallel bar in which vaulting gymnastics is a relatively difficult content, though the number of movements are not much compared to the remaining three contents.

Vaulting gymnastics is an advanced learning content of the 2<sup>nd</sup> year male intensive students in PE. Through practical survey of training, the 2<sup>nd</sup> year male intensive students' results are not high. There are many reasons such as: Psychological fear of learning content; due to lack of proper coordination between the momentum running - approaching vaulting table – 1<sup>st</sup> fly – pushing – 2<sup>nd</sup> fly two and landing. That has been raising concern about the practice of teaching and practicing gymnastics in general and vaulting gymnastics in particular. Therefore, choosing supplementary exercises to improve the technical skills for students is an essential

and necessary issue.

## RESEARCH METHODS

The research process uses the following methods: Methods of analyzing and synthesizing documents; Interview method; Pedagogical observation method; Pedagogical test and Statistical math method.

The study objects include: 12 male students of the Intensive Gymnastics class of course 47 - 2<sup>nd</sup> year, Hanoi University of Physical Education and Sports. Time of research: 2016.

## RESULTS AND DISCUSSION

**1. Assessment of the reality of using of supplementary exercises in teaching vaulting gymnastics techniques for male second-year P.E students, Hanoi University of Sports and Physical Education**

The thesis conducted lesson analysis and pedagogical observation in 20 sessions of intensive male second year students. The observation results are presented in Table 1.

Table 1 shows: The rate of using supplementary exercises is still low, lacking of diversity; Not fully utilizing complementary means; The exercises are not guaranteed to absorb and reinforce the best in learning

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**Table 1. Current situation of using specialized exercises to improve the vaulting gymnastics technique of male 2<sup>nd</sup> year students of Hanoi University of Sports and Physical Education**

No	Exercises	Total time of using the exercises in 20 lesson plans ( minute)	Number of times using exercises in 20 lesson plans (times)	The ratio of time to each lesson compared to the total time in 20 lesson plans (900 minutes)
1	Additional exercise to surf the platform with hands-free exercise	50	20	5.6
2	Three-step momentum running, podium jumping, and swinging arms	60	20	6.7
3	Momentum running	80	20	8.9
4	With hand pushings, jumping with legs closed, push hands upright on the mat	40	20	4.4
5	Momentum running, jumping with legs closed and pushing hands on the vaulting table	100	20	11.1
6	Momentum running, jumping with leg contracted, pushing hand, pushing body through vaulting table	100	20	11.1
7	Physical exercises	100	20	11.1

techniques of movement as well as not take advantage of the transfer rules of different skills well. On the other hand, it is also not guaranteed to coordinate well in completing techniques and developing well professional physical qualities for students.

## **2. Identify the basic mistakes in teaching of vaulting gymnastics technique of male 2nd year students of Hanoi University of Sports and Physical Education**

In order to identify the most basic mistakes in performing vaulting gymnastics technique of male intensive students in the second year, we compare the results of two pedagogical observation methods (through 20 lessons of 12 male second year students and analysis of technical video material (Pixela) together with

the results of interviews with PE teachers. The results have identified the 12 most basic mistakes in performing vaulting gymnastics technique of male intensive students including:

### **Mistakes often made in phase 1 (the stage of momentum running and podium jumping):**

1. The running speed of the last 3 steps is slow.
2. Podium surfing technique is not correct.
3. Exposing to podium with both feet.
4. Slow podium surfing.

### **Common mistake in phase 2 (stage of the 1st fly):**

1. The body's focus is low in the 1st fly stage.
2. Flight angle is not correct.
3. close hand pushing.
4. Low foot kick



Dinh Phuong Thanh's horse crank performance  
(Image source: <http://sovhtt.hanoi.gov.vn>)

**Mistakes often made in phase 3 (the stage of hand pushing and flying 2):**

1. The body's focus is low
2. Not stretching your body during flight
3. Bending knees when folding legs.
4. Landing too closely.

**3. Requirements for selecting supplementary training exercises to complete vaulting gymnastics techniques for male second-year PE students, Hanoi University of Sports and Physical Education**

**Requirement 1:** The exercises must directly help learners to grasp the individual technical stages as well as complete their techniques.

**Requirement 2:** Exercises must expand the technical skills for the practitioner.

**Requirement 3:** Exercises must help prevent factors that reduce the impact on technical perfection.

**Requirement 4:** Diversifying the forms of training, as well as making full use of the training facilities to help the conversion process and techniques link work effectively.

**Requirement 5:** Exercises must be reasonable, both repaired and gradually raised the level of difficulty, amount of exercise, paying special attention to safety issues in practice, avoiding injury and being used in

extra-curricular training.

**Requirement 6:** Exercises must help the learners achieve the technical specifications at each individual technical stage.

Specific requirements must follow these specifications:

**First:** Running speed of the last 3 momentum running must reach from:  $0.69 \pm 0.03$  (seconds)  $\rightarrow 0.61 \pm 0.07$  (seconds)

**Second:** At the stage of podium jumping, the angle of the body must reach from:  $77.5 \pm 3.2$  (degrees)  $\rightarrow 79.6 \pm 2.7$  (degrees)

**Third:** In the flying stage, the flying angle of the human body must reach from:  $29.7 \pm 2.8$  (degrees)  $\rightarrow 31.1 \pm 1.2$  (degrees).

The height of the body focus must reach:  $47.3 \pm 2.6 \rightarrow 49.4 \pm 4.3$  (cm)

**Fourth:** In stage 2, the flying angle of the body must be from:  $38 \pm 1.32$  (degrees)  $\rightarrow 45 \pm 1.5$  (degrees).

The height of body focus also ranges from:  $47.3 \pm 2.6$  (cm)  $\rightarrow 49.4 \pm 4.3$  (cm).

**4. Selecting supplementary exercises to complete the vaulting gymnastics technique for male second-year PE students, Hanoi University of Sports and Physical Education**

Through practical research, pedagogical observations, direct interviews with experts and

## ARTICLES

Common mistakes	Supplementary exercises
<p><b>Stage 1:</b></p> <ol style="list-style-type: none"> <li>1. The running speed of the last 3 steps is slow</li> <li>2. Podium surfing skill is not correct</li> <li>3. Exposing to podium with both feet</li> <li>4. Slow podium surfing</li> </ol>	<ol style="list-style-type: none"> <li>1. 3-step momentum running and podium jumping</li> <li>2. 3-step momentum running, podium jump and stand up</li> <li>4. Momentum 3-step surfing on mat</li> </ol>
<p><b>Phase 2:</b></p> <ol style="list-style-type: none"> <li>1. Body focus on stage 1 is low</li> <li>2. Flying angle is not correct</li> <li>3. Close hand pushing</li> <li>4. Low foot kick</li> </ol>	<ol style="list-style-type: none"> <li>1. Foot kick and folding body on mats</li> <li>2. Momentum running, foot kick, vertical hand pushing</li> <li>3. Arranging cushion in the same height with the vaulting table to support body folding</li> <li>4. Momentum running with 1 leg contracted and surfing on sushion</li> <li>5. Momentum running, foot kick on the vaulting table</li> <li>7. Holding the vaulting table and foot kick</li> </ol>
<p><b>Stage 3:</b></p> <ol style="list-style-type: none"> <li>1. Body focus on stage 2 is low</li> <li>2. Not stretching your body in flying in stage 2</li> <li>3. Bending knees when folding legs</li> <li>4. Landing too closely</li> </ol>	<ol style="list-style-type: none"> <li>2. Performing complete movements with the insurance cushion</li> <li>4. Put your foot on the ladder to do the push-up</li> <li>5. Fold the belly up on the ladder</li> </ol>

large-scale interviews with questionnaires, we selected 12 complementary exercises to complete the vaulting gymnastics technique for research subjects in each form of common mistakes including:

### CONCLUSION

1. The reality of using supplementary exercises to complete the vaulting gymnastics technique for students is still low, lacking in diversity; Not fully utilizing complementary means; The exercises are not guaranteed to absorb and reinforce the best in learning techniques of movement as well as not taking advantage of the transfer rules of different skills.

2. Identifying 12 common mistakes in teaching the technique of vaulting gymnastics for students.

3. Identifying 6 requirements for selecting professional supplementary exercises and choosing 12 supplementary exercises to complete the vaulting gymnastics technique for male second-year P.E students, Hanoi University of Sports and Physical Education.

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