

## INFORMATION ON NEW CONTRIBUTIONS OF THE THESIS

### A. PERSONAL INFORMATION:

Dissertation title: *“Solutions to improve the effectiveness of extracurricular sports activities for students at high schools in Thai Nguyen City”*

Major: Education

Major code: 9140101

PhD candidate: Nguyen Thi Tuyet Nhung

Supervisors:

1. Assoc. Prof. PhD. Bui Ngoc
2. Assoc. Prof. PhD. Ha Quang Tien

Training institution: **Vietnam Institute of Culture, Arts, Sports and Tourism.**

### B. THE NEW CONTRIBUTIONS OF THE DISSERTATION

The dissertation assessed the physical condition of high school students in Thai Nguyen City using the InBody analyzer with indicators including: height (cm), body weight (kg), BFM (body fat mass), SMM (skeletal muscle mass), BMI (body mass index), TBW (total body water), protein, minerals, PBF (percent body fat), obesity level, BMC (bone mineral content), and InBody score. The study provides objective results on body composition, thereby identifying each student's training capacity to help teachers adjust appropriate exercise loads.

The dissertation investigates solutions to improve the effectiveness of extracurricular sports activities for high school students, contributing significantly to both theoretical and practical foundations of physical education, particularly in the context of the ongoing implementation of the 2018 General Education Program.

The dissertation has assessed the current situation of Physical Education and extracurricular sports activities in high schools in Thai Nguyen City during the implementation of the 2018 General Education Program orientation up to the present.

The proposed solutions are developed based on scientific perspectives on physical development, psychological and physiological characteristics of students, and the comprehensive educational orientation of the new general education curriculum. These clarify the role of extracurricular sports in developing motor competence, personal qualities, and healthy lifestyles for students.

The research findings also provide a basis for further studies and for developing models of extracurricular sports organization suitable to practical conditions.

The dissertation identifies a system of eight feasible and synchronous solutions that meet the practical requirements of high school students in Thai Nguyen City.

The application and experimental implementation of these solutions demonstrate that the process was conducted according to plan, ensuring scientific rigor and suitability to school conditions. The solutions led to significant improvements in the organization and management of extracurricular sports activities. After the experiment, student participation increased markedly; the number and quality of sports clubs were strengthened and expanded; and organizational forms became more diverse and flexible. The organization of sports competitions both within and between schools was conducted more frequently, expanding the scale of activities and enhancing exchange and competition among schools. Students' academic performance in physical education improved, reflecting the positive support of extracurricular activities for formal teaching. Notably, students' physical indicators after the experiment improved significantly compared to before and compared to the control group, confirming the effectiveness of the solutions in enhancing physical fitness and comprehensive development. Overall evaluation shows that the effectiveness of extracurricular sports activities reached a fairly good level after the experiment, confirming the feasibility and effectiveness of the proposed solutions and providing a solid scientific basis for scaling up the model across high schools in Thai Nguyen City.

Hanoi, May 5th, 2026

**Scientific advisor**

**PhD student**

Assoc. Prof. PhD. Bui Ngoc

Assoc. Prof. PhD. Ha Quang Tien

Nguyen Thi Tuyet Nhung