PROCEEDINGS

THE INTERNATIONAL CONFERENCE ON SPORT SCIENCE 2025

Theme: Technology, Sustainability, and Comprehensive Health in Sport

June 12th – 13th, 2025

Ton Duc Thang University, Ho Chi Minh City, Vietnam

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2025 INTERNATIONAL CONFERENCE ON SPORT SCIENCE 2025

TABLE OF CONTENTS

Contents

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PREFACE

CONFERENCE CHAIR

It is with great pleasure and anticipation that I welcome you to The International Conference on Sport Science 2025 (ICSS 2025). As the Conference Chair, I am honored to introduce this remarkable event, which focuses on the theme: ***"Technology, Sustainability, and Comprehensive Health in Sport"***

The year 2025 marks a crucial moment for us to collectively explore new advancements and directions in the field of sport science, especially in the context of the digitalization era and increasing environmental awareness. The primary objective of ICSS 2025 is to provide a platform for experts, academics, and practitioners to exchange knowledge, ideas, and experiences on new trends and developments in sport business management, sport coaching, physical education, sport biomedicine, sport psychology, and other related disciplines. ICSS 2025 aims to contribute to theoretical foundations and practical implications, bringing effectiveness in the implementation of sport-related activities. This conference presents an opportunity for us to collectively shape the future of the sport industry by fostering innovation, collaboration, and evidence-based practices.

I would like to express my sincere gratitude to the organizing committee, which comprises dedicated professionals from the *Faculty of Sport Science, Ton Duc Thang University*, in association with esteemed co-organizing institutions such as: *Ho Chi Minh City University of Physical Education and Sports - Vietnam; Burapha University - Thailand; National Taiwan University of Sport - Taiwan; Chung-Ang University - Korea; and The International Federation of Physical Education, Fitness and Sports Science Association - India*. Their collective expertise, tireless efforts, and commitment to advancing sport science have made ICSS 2025 a reality.

Lastly, I extend my warmest invitation to all sport science enthusiasts, researchers, scholars, practitioners, and industry experts to join us at ICSS 2025, to be held on June 12-13, 2025, at Ton Duc Thang University, Ho Chi Minh City, Vietnam. Let us come together to contribute, collaborate, and create a path towards a resilient and prosperous future for the sport industry. Together, we can forge a new era of knowledge, innovation, and excellence in sport science. Thank you for your invaluable support, and I eagerly anticipate your participation in this enriching event.

Conference Chair
Associate Professor. Dr. Trinh Trung Hieu,
Faculty of Sport Science, Ton Duc Thang University, Vietnam.

MESSAGE FROM THE HOST UNIVERSITY

As President of Ton Duc Thang University (TDTU), it is my great pleasure to welcome all participants to the International Conference on Sport Science 2025 (ICSS 2025). This conference serves as a valuable platform for scientists, researchers, academics, and experts from universities and institutes around the world to share and discuss their latest findings and experiences in Sport Management, Physical Education and Sport Coaching, Sport Biomedicine, and Sport Psychology.

TDTU is committed to fostering a high-quality academic environment that encourages innovation and intellectual growth. Our vision is to become one of the world's leading research universities, and ICSS 2025 represents a strategic initiative in pursuit of that goal. This annual conference series, organized by TDTU in collaboration with our partners, underscores our active role in the global academic community.

This year, ICSS 2025 has drawn participants from over 46 universities, including 22 international institutions from South Korea, Thailand, India, Malaysia, and Taiwan. This wide-ranging participation reflects not only the prestige and academic quality of the conference but also the trust placed in TDTU's professionalism, hospitality, and organizational excellence.

On behalf of TDTU, I would like to express our sincere appreciation to our esteemed partners and scholars whose support has made this event possible. I also extend my heartfelt thanks to all those who have contributed to the organization of this conference, including volunteers, session chairs, and presenters, etc. for their dedication and hard work.

I wish you all meaningful and productive discussions at ICSS 2025. I am confident that this conference will foster enduring partnerships and broaden our academic networks.

Tran Trong Dao, Ph.D
President of Ton Duc Thang University, Vietnam.

Physical Status of 10th Grade Students in Hue City.

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ABSTRACT

To evaluate the physical condition of the research subjects, the project conducted a survey and pedagogical test on the research subjects, which were 270 grade 10 students (of which 160 were male and 110 were female), belonging to 4 high schools in Hue city through the physical assessment test of Vietnamese people in 2001 from the Institute of Sports and Exercise Sciences and the tests were selected by experts and lecturers to assess the physical condition of the students. 10 in Hue city. The content of the article is part of the research in the 2024 Hue University project of the author group.
Keywords: *Recreational sports, exercise, high school students, Hue city*

SUBJECT MATTER

The sustainable basis for the long-term survival of each country and each nation stems from the continuous care and investment in human development in all aspects, in which investing in improving the physical and health of students in general is the most important issue in the human development strategy. For that reason, for a long time, the Party and State's policies and guidelines have always mentioned the issue of comprehensive human development in general and physical development in particular for students at all levels.

Reality shows that as life improves, the need for recreational sports activities is essential for everyone, especially students. Concepts and perspectives on sports entertainment in the world today are very diverse and have not been unified depending on the perspective and research orientation of each author. However, most authors have the most general concept of recreational sports: recreational sports is a specific form of sport aimed at satisfying one's own entertainment needs, with little consideration of winning or losing, with a special appeal, especially to young people, not only bringing joy when winning competitions or overcoming difficulties but also increasing physical strength and health. Through the expression of entertainment sports, it can be seen that the nature of entertainment sports and competitive sports is very different. If competitive sports are fierce competition between opponents, then in recreational sports participants must also win, but here it is about winning over oneself, conquering nature, perfecting oneself, through these sports activities to eliminate fatigue, foster self-confidence, overcome shyness, and increase love for nature, life and work.

For students, especially high school students, entertainment is an activity that plays an important role in mental and physical development. Children accumulate knowledge, life skills, form personality and entertain themselves through play activities. Incomplete awareness of this issue is the basic cause of overload in students' learning activities. Children lack time and conditions for entertainment. On the other hand, recreational activities in the form of exercise are still very limited. Students spend a lot of time playing video games, entertaining themselves on the internet, watching TV, movies...

There have been a number of works interested in assessing the physical fitness of Vietnamese students and pupils such as: Bui Quang Hai (2007) conducted a follow-up of the physical development of primary school students (6-10 years old) using longitudinal monitoring methods, thereby providing methods to predict the physical development of students in the following years. Tran Duc Dung (2010)

assessed the progress of students' physical development using longitudinal monitoring methods over 12 years (from 6-17 years old). Duong Nghiep Chi, Nguyen Danh Thai and colleagues (2003), Physical Status of Vietnamese People from 6 to 45 Years Old (2001), Sports Publishing House, Hanoi, Ngu Duy Anh, Vu Duc Thu (2023), "Physical development of high school students in our country in the past decades"...

To have a basis for evaluating the impact of recreational sports activities on the physical development of 10th grade students. The study was conducted to evaluate the physical status of 10th grade students in Hue City.

RESEARCH METHODS

- Methods of analyzing and synthesizing documents: Use this method to collect and select relevant documents including: legal documents and documents of the Party and State, as well as books, newspapers, scientific magazines, scientific documents and research results of domestic and foreign authors and scientists on physical education, school sports, traffic training theory, models of recreational sports activities, physical education of domestic and foreign research subjects, and find out trends Therefore, the current situation and dynamics of the problem draw scientific arguments about the physical characteristics of students, the current situation, influencing factors and issues related to physical education. Serves as a basis for drawing scientific arguments, helping the process of building a theoretical basis, comparing and synthesizing data, forming hypotheses, directions and scientific predictions for research.

- Interview method: The project conducted interviews with 30 lecturers, teachers, administrators, and experts about selecting criteria for evaluating the physical health of 10th grade students. In order to serve as a practical basis to evaluate the current situation, select, and develop criteria to evaluate the physical development of 10th grade students in Hue city under the impact of recreational sports activities.

- Pedagogical testing methods: The project uses the following tests to evaluate the physical development of 10th grade students in Hue City

- Medical examination methods: The project uses the following tests to evaluate the physical development and body functions of 10th grade students in Hue city

- Statistical mathematical methods: Statistical mathematical methods are used in the processing of data collected during the research process.

RESEARCH RESULTS AND DISCUSSION

1. Select criteria to evaluate the current quality of Grade 10 students in Hue City

To select criteria that are consistent with the characteristics guaranteed for Grade 10 students in Hue city as well as to select criteria that are consistent and consistent with the characteristics that ensure comprehensiveness in assessing the physical status of Grade 10 students in Hue city. We conducted interviews with 30 experts who are colleagues, teachers, lecturers, and experts with experience, professional qualifications, and seniority working inside and outside the school, of which 100% have university and postgraduate degrees. The interview results are also the basis for reviewing, selecting and determining criteria to ensure necessary requirements. The interview content that achieves results with 80% or more of the respondents will continue to be included in the research process of the topic. The interview results are presented in the following table

Table 1. Results of interviews to select physical assessment criteria for Grade 10 students in Hue city (n=30).

No	Criteria for physical assessment of Grade 10 students in Hue city	Agree		Disagree	
		Quantity	*%*	*Quantity*	*%*
1	Run 30m starting high (s)	27	*90.00*	3	*10.00*
2	Run 100m starting high (s)	5	*16.66*	25	*83.33*

3	Run for 5 minutes depending on your ability (m)	25	*83.33*	5	*16.66*
4	4x10 meter shuttle run **(s)**	12	*40.00*	18	*60.00*
5	Turn on the distance in place (cm)	26	*86,67*	4	*13.33*
6	Lie on your stomach and do push-ups for 30 seconds (number of times)	15	50.00	15	*50.00*
7	Lie on your back and do crunches for 30 seconds (number of times)	27	*90.00*	3	*10.00*
8	Height (cm)	24	*80.00*	6	*20.00*
9	sitting height (cm)	16	*53.33*	14	*46.67*
10	Weight (kg)	24	*80.00*	6	*20.00*
11	**BMI** (Kg/m2)	29	96.67	1	3.33
12	Heart function (HW)	25	*83.33*	5	*16.66*
13	Heart rate at quiet time (times / minute)	27	*90.00*	3	*10.00*
14	Blood pressure (mmHg)	26	*86,67*	4	*13.33*
15	Respiratory rate (beats/minute)	14	*46.67*	16	*53.33*
16	Vital capacity (liters)	27	*90.00*	3	*10.00*
17	PWC170 (kgm/phút/kg)	18	*60.00*	12	*40.00*

Through the interview results of 17 criteria in table 1, we have selected 11 criteria with an agreement rate of 80% or more among experts, teachers, and lecturers.

On that basis, to once again confirm that the tests chosen by the majority of experts and lecturers are guaranteed to be reliable enough to assess the physical fitness of 10th grade students, we continue to interview with 3 levels (very necessary - necessary - not necessary), we have selected a physical assessment test with a high number of votes at the very necessary and necessary level of over 80% of experts and lecturers to continue further research.

Table 2. Interview results on the need to choose a physical assessment test for Grade 10 students in Hue city (n=30)

No	Criteria for physical assessment of Grade 10 students in Hue city	Very necessary		Necessary		Not necessary	
		Quantity	*%*	*Quantity*	*%*	*Quantity*	*%*
1	Run 30m starting high (s)	26	*87.00*	3	*10.00*	1	3.33
2	Run for 5 minutes depending on your ability (m)	24	*80.00*	2	*6.67*	4	13.33
3	Lie on your stomach and do push-ups for 30 seconds (number of times)	25	*83.33*	3	*10.00*	2	6.67
4	Lie on your back and do crunches for 30 seconds (number of times)	26	*87.00*	2	*6.67*	2	6.67
5	Height (cm)	27	*90.00*	2	*6.67*	1	3.33
6	Weight (kg)	24	*80.00*	3	*10.00*	3	10.00
7	**BMI** (Kg/m2)	27	*90.00*	1	*3.33*	2	6.67
8	Heart function (HW)	24	*80.00*	2	*6.67*	4	13.33
9	Heart rate at quiet time (times / minute)	25	*83.33*	2	*6.67*	3	10.00
10	Blood pressure (mmHg)	26	*87.00*	1	*3.33*	3	10.00

11	Vital capacity (liters)	25	*83.33*	2	*6.67*	3	*10.00*

From the results obtained, we determined the level of reporting and reliability, showing that: All 11/11 tests selected for the research subjects showed a correlation to ensure the necessary reporting with (| r |> | 0.6 | with P. This shows that the selected tests have a close correlation with complete reporting, enough reliability and are suitable for the research subjects as well as the actual conditions in physical assessment for high school students in the city Hue.

2. Assessing the physical condition of Grade 10 students in Hue City.

To evaluate the physical condition of the research subjects, the project conducted a survey and pedagogical test on 270 grade 10 students (of which 160 men and 110 women) from 4 high schools in Hue city through the 2001 Vietnamese physical assessment test of the Institute of Exercise and Sports Sciences and the tests selected by experts and lecturers to assess the physical condition of high school students in the city. Hue street. The test contents include 11 selected tests.

On that basis, the study was compared with the results of a physical survey of Vietnamese people of the same age (15 years old) in 2001 by the Institute of Sports and Exercise Sciences. The research results are shown in table 3.

Through the results of physical indicators of 10th grade students of high schools in Hue city and through comparison with the physical indicators of Vietnamese people of the same age in 2001 by the Institute of Science, we see that the indicators of high school students in Hue city are much higher than the results of measuring the indicators of Vietnamese people of the same age in 2001. This is also consistent with the law of development according to modern trends, specifically:

Regarding morphological and functional indicators: When comparing the differences in morphological indicators between male and female 10th graders of high schools in Hue city and the physical condition of Vietnamese people in 2001 of the same age (published by the Institute of Sports Science), it was shown that the indicators: Standing height (cm), Weight (kg), BMI (kg/m2), Vital capacity (liter) all had clear differences ($\mathbf{t}_{tcalculated} > \mathbf{t}_{table}$ with $P < 0.05$) of 10th graders of high schools in Hue city in both male and female were higher than the physical condition of Vietnamese people of the same age. However, the cardiac function index (Hw), resting heart rate (beats/minute), Blood pressure (mmHg) of both male and female 10th graders of high schools in Hue city were lower than the physical condition of Vietnamese people of the same age in 2001.

Regarding general physical fitness tests: From the results of the tests to assess the general physical qualities of male and female 10th grade students of high schools in Hue city, it shows that all the general physical fitness tests of 10th grade students of high schools in Hue city are higher than the results of the physical fitness survey of Vietnamese people in 2001 at the same age, the difference is clearly shown with ($\mathbf{t}_{tcalculated} > \mathbf{t}_{table}$ with $P>0.05$).

Table 3. Physical status of 10th grade high school students (15 years old) in Hue City during the 2023-2024 school year (n=270)

TT	Criteria	Male (160 Students)					Female (110 Students)				
		$\bar{X} \pm \delta$	Cv	The Physical of Vietnamese people in 2001	t	P	$\bar{X} \pm \delta$	Cv	The Physical of Vietnamese people in 2001	T	P
1	Run 30m starting high (s)	6.02±0.72	11.96	5.08±0.54	23.570	>0.05	7.01±0.58	8.27	6.17±0.66	18.468	>0.05
2	Run for 5 minutes depending on your ability (m)	896.25±80.23	8.95	972.00±216.75	11.405	>0.05	695.65±87.16	12.52	768.00±105.90	16.687	>0.05
3	Lie on your stomach and do push-ups for 30 seconds (number of times)	193.85±8.23	4.24	202.00±22.80	9.234	>0.05	145.80±9.37	6.42	156.00±16.34	10.124	>0.05
4	Lie on your back and do crunches for 30 seconds (number of times)	13.15±1.18	8.97	19.00±3.68	48.126	>0.05	12.25±1.68	13.71	11.00±4.25	2.732	>0.05
5	Height (cm)	164.20±5.62	3.42	160.66±6.57	1.025	<0.05	156.70±6.25	3.99	152.67±5.17	0.620	<0.05
6	Weight (kg)	58.15±6.21	10.67	46.66±5.30	1.185	<0.05	52.45±3.56	6.78	42.76±5.49	1.405	<0.05
7	**BMI** (Kg/m2)	21.56±2.15	9.97	18.01±1.99	2.655	<0.05	20.8±2.35	11.29	18.37±2.12	2.763	<0.05
8	Heart function (HW)	11.03±1.47	13.32	12.57±3.98	4.618	<0.05	12.09±1.36	11.24	14.43±4.05	7.286	<0.05
9	Heart rate at quiet time (times / minute)	71.04 ± 4.89	6.88	76 ± 6.30	1.023	<0.05	72.78 ± 3.05	4.16	77 ± 6.80	1.035	<0.05
10	Blood pressure (mmHg)	111.7 ± 4.75	4.25	115 ± 9.70	0.490	<0.05	110.8 ± 3.30	2.97	110 ± 9.80	0.380	<0.05
11	Vital capacity (liters)	4.19 ± 0.51	12.17	3.95±0.86	0.860	<0.05	3.09 ± 0.54	17.47	2.99±0.54	0.301	<0.05

CONCLUSION

The study selected 11 criteria to assess the physical fitness of 10th grade students in high schools in Hue City. Through assessing the physical status of 10th grade students in high schools in Hue City and comparing the results of the physical assessment of Vietnamese people in 2001 by the Institute of Sports Science, we obtained the results that the physical development of 10th grade students is basically consistent with the general development law; the indicators of morphology, motor qualities, and body functions of 10th grade students in Hue City are superior to those of students of the same age in 2001.

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