



BUILDING AN ASSESSMENT SYSTEM TO MEET THE OUTPUT STANDARDS OF THE ATHLETICS MODULE WITH THE OUTPUT STANDARDS OF THE PHYSICAL EDUCATION TRAINING PROGRAM OF HO CHI MINH CITY UNIVERSITY OF PHYSICAL EDUCATION AND SPORTS, VIETNAM

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Abstract:

Based on the design of test systems and the results students achieve during the Athletics module, the study establishes a process to evaluate the level of compliance with the output standards of the Athletics module (CLO) compared to the output standards of the physical education training program (PLO). From there, the study determines the contribution rate of each CLO in the assignment matrix and calculates the response rate of each CLO of each student in the module class to prove that the assessment results are closely linked to the standards and criteria for training quality accreditation, have a transparent database to serve the improvement of training programs and demonstrate quality assurance activities within the school. The study recorded that the rate of students meeting CLO 1 was 100%, CLO 2 was 97.56%, and CLO 3 was 92.68%; 100% of students met the standards of PLO1, 90.2% of students met the standards of PLO2, and 92.7% of students met the standards of PLO1. This confirms that the training quality of the Athletics module meets the requirements of CLO and the physical education training program of Ho Chi Minh City University of Physical Education and Sports, Vietnam.

Keywords: output standards, physical education industry, training quality, training programs, modules

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1. Introduction

In the context of reforming higher education towards developing learner capacity and meeting the requirements of the labor market, training students to meet the output standards of the Physical Education training program is particularly important. The Athletics module is one of the foundational modules, contributing to the formation of students' professional technical system, movement skills, organizational capacity and guidance on teaching Athletics content in the school. In the content of this module, students are equipped with knowledge of high jump, long jump and teaching skills. Ensuring students achieve CLOs not only helps learners master techniques, fitness and subject teaching methods, but also creates a foundation for developing the necessary professional competencies of future physical education teachers. At the same time, the CLOs of Athletics module also have a close connection with the general output standards of the Physical Education training program, contributing to the formation of professional capacity, pedagogical capacity and skills in organizing physical education and sports activities.

In addition, accreditation and assessment of output standards play a key role in ensuring and improving training quality. Through the process of verifying output standards, subject managers and lecturers can determine the level of student satisfaction with the set requirements, thereby promptly adjusting program content, teaching methods, testing and evaluation forms and other quality assurance conditions. Accreditation is not only a mandatory requirement in the higher education quality assurance system but also an objective demonstration of training effectiveness, helping to improve the school's reputation and people's competitiveness. Therefore, building, implementing and regularly evaluating CLOs as well as output standards of the Physical Education training program should be considered a key task and contribute to ensuring training quality.

Currently, the assessment of the level of meeting the output standards of each module in many training programs still have certain limitations. In fact, determining the level of learners' output standards has not been implemented systematically and methodically; If it is done, most of it just stops at emotional judgments or estimates based on lecturers' experience. Choosing a practice module helps make the assessment specific and representative. Conclusions about the level of standardization are often not quantified with specific criteria and metrics and are not based on complete data evidence from student learning results. This leads to difficulties in accurately assessing the degree to which each module meets the outcome standards as well as the degree of contribution of the module to the overall outcome standards of the training program. In addition, the lack of data analysis tools and mechanisms to track learning outcomes according to each outcome indicator makes the process of improving training quality not truly evidence-based. Therefore, building an output standard assessment system based on data, using clear and objective measurement criteria and indicators, is an urgent requirement to

improve the effectiveness of quality management and ensure quality training in higher education institutions.

2. Literature Review

This research paper examines multidisciplinary data on physical education, teaching methods, assessment methods, and accreditation standards for teacher training programs. Reference materials are compiled from decisions and directives of central ministries and agencies, school regulations, and educational studies.

3. Materials and Methods

3.1 Research Subjects

Research subjects consist of 41 students from the 9th cohort of the full-time undergraduate program at Ho Chi Minh City University of Physical Education and Sports.

3.2. Methodology

3.2.1 Pedagogical Observation Method

This research utilizes observation methods and observation sheets to record student test and exam results. Observation also serves as a basis for recording the level of proficiency in seated long jump technique, a component of the final assessment. This observation helps to record real-world data quickly and accurately.

3.2.2 Pedagogical Experiment Method

This method is used to record student exam results based on their seated long jump performance in the end-of-semester exam administered by the teacher.

3.2.3 Mathematical Statistics Method

We use parameters, data, and computational functions to demonstrate the effectiveness of the evaluation matrix and to provide a database for determining the accuracy of assessing the level of compliance with output standards using scientific parameters.

4. Research Results and Discussion

4.1 Basis for Implementation

To determine the level of meeting the output standards of some modules and the output standards of the Physical Education training program, the research team based on the following regulations:

- Circular No. 04/2025/TT-BGDDT dated February 17, 2025 of the Minister of Education and Training on Training Program Accreditation Standards.

- Decision 1028/QĐ-ĐHSPTDTT dated October 3, 2025, of the Principal of Ho Chi Minh City University of Physical Education and Sports on promulgating the training program and description of the training program.
- Detailed outline of the Athletics module.
 Based on the above, the research team determined the steps to take include:
 - Set up the content table of tests and exams corresponding to each CLO according to regulations.
 - Create a matrix of CLO contribution rates with the output standards of the school's physical education training program
 - Record students' scores based on the content of tests and exams and put them into spreadsheets.
 - Calculate the percentage $D/D_{\max}$ (student score/maximum score) of each student in each learning outcome (CLO).
 - Based on the contribution rate of each output standard in the matrix, calculate the rate of meeting each output standard for each student using the formula:

Percentage of CLO... achieved by student A = ((% $D/D_{\max}$ of CLO... * W%) + (% $D/D_{\max}$ of CLO... * W%) + ...) * 100/Total billion of CLO

- Determine the achievement level of each output standard (CLO) of 65% or higher.
 - Determine the proportion of CLO to PLO, as prescribed by the school; CLO1, CLO2, CLO3 all correspond to PLO1, PLO2 and PLO3.
- Conclusion of pass and fail levels for each student and the entire module.

4.2 Set Up the Table of Contents of Tests and Exams Corresponding to Each Clo According to Regulations

Based on the promulgated training program, the implementation team determines the content of the tests and assessments of the module corresponding to the description of the module's learning outcomes as follows:

Table 1: Content of tests and assessments of the athletics module corresponding to the CLO description

CLO	Description CLO	Content of tests and course exams
CLO1.1.3	Know how to use information technology to study documents related to general knowledge of Athletics	Carry out theory tests using files and present them as required by the instructor
CLO1.2.1	Analyze technical principles of long jump and high jump content, techniques and teaching methods for long jump and high jump.	Analysis of sitting long jump and high jump techniques in preparing lesson plans (according to the topic division of each group)

CLO1.2.2	Analyze and apply basic rules in long jump and high jump.	Comply with competition rules in tests and exams
CLO2.1.1	Have skills in dealing with classmates, teachers and handling pedagogical situations during the learning and training process	Evaluate the practical content of teaching 1 hour of physical education class under the Practice Lesson Plan content
CLO2.1.4	Apply information technology to learn about long jump and high jump records in Vietnam and around the world, as well as apply it to planning and teaching lesson plans.	Applying technology to learn the content of thematic articles and questions in theory classes and compile them in lesson plans
CLO2.2.1 exam	Proficient in organizing, evaluating, commenting, and checking long jump and high jump content.	Sitting long jump achievements
CLO2.2.2 exam	Proficient in performing specialized supplementary exercises in long jump and high jump and grasp basic methods in teaching classes.	Sitting long jump technique
CLO3.1.1	Understand and comply with the regulations of the module on learning attitudes	Participate fully in learning
CLO3.1.2	Have good ethics, be self-aware, and be proactive in studying and training	Strictly follow classroom regulations regarding class entry and exit times and attire
CLO3.2.1	Be active in studying in class, practice on your own, refer to documents and practice in groups.	Prepare tools, refer to documents and lessons

In the above contents, the corresponding contents CLO 2.2.1 and CLO 2.2.2 are determined to be the content of the final exam. Based on the importance of the tests, the research team determined the matrix of contribution rates of the course's learning outcomes to the learning outcomes of the school's physical education training program as follows:

Table 2: Matrix of the contribution rate of the learning outcomes of the athletics module (CLO) to the learning outcomes of the school's training program (PLO) in the field of physical education (percentage percentage)

CLO	Mapping with PLO																			
	PLO1								PLO2								PLO3			
	PLO1.1			PLO1.2					PLO2.1				PLO2.2				PLO3.1		PLO3.2	
	1	2	3	1	2	3	4	1	2	3	4	1	2	3	4	1	2	1	2	3
CLO1.1.3			5																	
CLO1.2.1				10																
CLO1.2.2					5															
CLO2.1.1								5												
CLO2.1.4											5									
CLO2.2.1												20								
CLO2.2.2													20							
CLO3.1.1																10				
CLO3.1.2																	10			
CLO3.2.1																		10		

According to the matrix table and compatibility with the above assessment content, the research team determined the contribution ratio of each CLO to the output standards of the physical education sector. Based on this ratio distribution, the research team recorded the corresponding score components and evaluated the degree to which students met the course criteria after completing the Athletics course

4.3 Evaluate Students' Level of Meeting the Course Learning Outcomes

During the teaching process, the lecturer records the students' score components corresponding to each content and CLO. Besides, determine the maximum score (D max) for each test content as a basis for calculating the level of CLO satisfaction. This score corresponds to the score levels according to the school's regulations, such as attendance scores corresponding to CLO 3.1.1, 3.1.2, 3.2.1; Test scores corresponding to CLO 2.1.1, 2.2.3; Test scores corresponding to CLO 1.2.1, 2.2.1, 2.2.2

After calculating each score and CLO satisfaction rate for each student, the research team continues to evaluate the CLO satisfaction level (course CLO includes CLO 1, CLO 2, CLO 3) according to the proportion of each CLO and the convention that the achievement level of each CLO is equal to or greater than 65% and is presented specifically as the following table:

Table 3: Results of students meeting CLO for the athletics section

Mức độ %	10		60		30	
CLO	CLO1		CLO2		CLO3	
Student code	%	Result	%	Result	%	Result
1	81.3	Obtain	83.4	Obtain	100	Obtain
2	100.0	Obtain	75.1	Obtain	100	Obtain
3	92.2	Obtain	68.1	Obtain	100	Obtain
4	100.0	Obtain	78.6	Obtain	100	Obtain
5	81.3	Obtain	65.0	Obtain	100	Obtain
6	89.1	Obtain	70.4	Obtain	67	Obtain
7	84.4	Obtain	86.2	Obtain	100	Obtain
8	93.8	Obtain	96.3	Obtain	100	Obtain
9	90.6	Obtain	69.1	Obtain	67	Obtain
10	100.0	Obtain	78.6	Obtain	94	Obtain
11	67.2	Obtain	87.3	Obtain	100	Obtain
12	75.0	Obtain	91.4	Obtain	100	Obtain
13	82.8	Obtain	72.0	Obtain	72	Obtain
14	89.1	Obtain	66.1	Obtain	100	Obtain
15	75.0	Obtain	62.1	Not Obtain	100	Obtain
16	70.3	Obtain	69.5	Obtain	100	Obtain
17	89.1	Obtain	86.1	Obtain	61	Not Obtain
18	81.3	Obtain	83.4	Obtain	100	Obtain
19	96.9	Obtain	86.5	Obtain	100	Obtain
20	100.0	Obtain	81.4	Obtain	100	Obtain
21	81.3	Obtain	78.7	Obtain	100	Obtain
22	92.2	Obtain	71.6	Obtain	100	Obtain
23	67.2	Obtain	82.2	Obtain	100	Obtain
24	71.9	Obtain	84.5	Obtain	100	Obtain
25	98.4	Obtain	74.5	Obtain	61	Not Obtain

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26	87.5	Obtain	84.0	Obtain	67	Obtain
27	92.2	Obtain	83.0	Obtain	100	Obtain
28	87.5	Obtain	80.2	Obtain	100	Obtain
29	96.9	Obtain	96.9	Obtain	94	Obtain
30	96.9	Obtain	85.9	Obtain	100	Obtain
31	96.9	Obtain	80.2	Obtain	94	Obtain
32	87.5	Obtain	98.8	Obtain	100	Obtain
33	92.2	Obtain	79.3	Obtain	100	Obtain
34	71.9	Obtain	90.2	Obtain	100	Obtain
35	84.4	Obtain	94.4	Obtain	61	Not Obtain
36	70.3	Obtain	91.2	Obtain	100	Obtain
37	85.9	Obtain	84.8	Obtain	72	Obtain
38	100.0	Obtain	72.9	Obtain	100	Obtain
39	98.4	Obtain	76.7	Obtain	72	Obtain
40	100.0	Obtain	100.0	Obtain	89	Obtain
41	92.2	Obtain	97.5	Obtain	72	Obtain
% Students obtain	100	Obtain	97.56	Obtain	92.68	Obtain

Based on the recorded results, the research team found that in CLO 1, 100% of students passed, in CLO 2, 97.56% of students passed, and in CLO 3, 92.68% of students passed. This is the basis to help the research team prove that the students' learning results have guaranteed CLO for the Athletics section.

4.4 Assess Students' Level of Meeting the Output Standards of the Physical Education Training Program

Similar to the above calculation, the research team determined the proportion of each CLO compared to the PLO of the training program as follows:

Table 4: Corresponding ratio table of CLO standards to the training program PLO

CLO standards	PLO1	PLO2	PLO3
CLO1.2.1	10%		
CLO2.1.1		10%	
CLO2.2.1		20%	
CLO2.2.2		20%	
CLO2.2.3		10%	
CLO3.1.1			10%
CLO3.1.2			10%
CLO3.2.1			10%

From these parameters, the research team entered the data into Excel software and recorded the following results:

Table 5: Results of meeting the school's curriculum criteria for the physical education sector

W%	10		60		30	
PLO	PLO1		PLO2		PLO3	
	%	Result	%	Result	%	Result
Students achieve PLO in the Athletics section	100	Obtain	90.2	Obtain	92.7	Obtain

Based on the above results, the research team determined that the students' learning outcomes met the standards of the training program of the physical education sector that the school had issued.

5. Recommendations

Evaluating the extent to which course learning outcomes align with the program's learning outcomes is essential in the program accreditation process, aiming to meet the higher education standards set by the Ministry of Education and Training. In this study, we have only constructed and calculated based on measured and recorded data from the development of an evaluation system. The results of this study can be applied to other courses in the physical education program and other programs offered by the Ho Chi Minh City University of Physical Education and Sports, Vietnam.

6. Conclusion

The research was developed and applied in the Athletics module with results recorded by 41 students. Applying the initiative helps lecturers and departments to evaluate students' learning outcomes scientifically and ensure compliance with regulations on teaching quality. In addition to the immediate application effectiveness, the research also creates a premise for expanding the scope of evaluation in the future. The identified model and process are applicable to many different modules, training programs and assessment levels and also support the implementation of digital assessment data management and analysis systems, meeting development requirements and improving training quality.

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Conflict of Interest Statement

The authors declare no conflicts of interest.

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