

# Research on Teaching Evaluation of Track and Field General Course in Physical Education Major of Taishan University

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**Abstract:** *The scientific and rational degree of professional course teaching evaluation reflects the level of teaching management and teaching quality in normal colleges, and the evaluation standard system will directly affect students' enthusiasm and initiative in learning and training. Based on the reality of uneven physical basic quality of physical education majors in ordinary colleges and universities, this paper takes Taishan University as the research object, analyzes students' assessment results by using statistical methods, and combines the basic rules of track and field to formulate optimization countermeasures for the teaching evaluation system of track and field general courses. In the hope of providing reference for the evaluation system of track and field general courses in similar colleges in China.*

**Keywords:** *Ordinary colleges and universities; Physical education; Track and field general courses; Teaching evaluation*

## 1. Introduction

The major of physical education is the main major of training physical education teachers, coaches and researchers, and the general course of track and field is the core backbone course of physical education. Teaching evaluation is an important part of the educational work of colleges and universities, and is the main index to measure the teaching effect. The main purpose of teaching evaluation is not only to check the teaching results and teaching quality, but also to promote reform by evaluation and guide the continuous improvement of the teaching level.

The professional certification of teachers is an important measure to improve the training quality of teachers at the national system level, and Taishan University is currently actively carrying out this work. Based on the background of normal professional certification, the research on the evaluation system of track and field general course teaching in physical education majors is not only an important reform of track and field general course teaching in colleges and universities, but also plays a positive role in promoting the teaching of track and field general course teaching in colleges and universities.

## 2. Necessity of research

### 2.1 Demand for curriculum reform and innovation

As early as 2005, the Ministry of Education issued the "Track and Field Course Teaching Guidelines"; In October 2012, the government departments of The General Office of the State Council issued relevant policies and regulations, and issued several Opinions on Further Strengthening School Sports Work, clearly proposing to "establish and improve the detection and evaluation mechanism of school sports and improve the evaluation system." In May 2016, The General Office of the State Council issued the Opinions on Strengthening School Physical Education and Promoting the Comprehensive Development of Students Physical and Mental Health, emphasizing the need to strengthen evaluation and monitoring and improve examination evaluation methods. With the promulgation of national policies and documents, the teaching reform of physical education specialty has entered a new era<sup>[1]</sup>.

## ***2.2 Requirements for professional certification of teachers***

Since 2014, China has attached great importance to the construction of teacher training and begun to promote the quality assurance of teacher training at the national system level. Initially, Jiangsu, Guangxi and other provinces and regions took the lead in piloting teacher training professional certification. In 2018, the certification work was officially launched. Various standards were formulated and issued, and various certification requirements were clarified. Then the local colleges and universities at all levels should improve the teaching evaluation according to the certification standards, among which the reform of curriculum teaching evaluation is very important.

## ***2.3 Strong driving of social development practice***

In 2018, the sports major examination policy of ordinary colleges and universities in Shandong Province was reformed, making it clear that as long as the professional and cultural scores reach the minimum score line, they are eligible to fill in the sports major application form. However, admission is only based on the final comprehensive score, which invisibly increases the proportion of physical education professional examination results. After the implementation of the new college entrance examination in Shandong Province in 2020, students can freely combine subjects to take the college entrance examination. This year, the sports major will no longer set the minimum score of cultural performance. As long as the students' professional scores reach the sports major qualified line, they can fill in the college application form, and the final admission only depends on the comprehensive score ranking. The change of college entrance examination admission policy makes colleges and universities have to face up to the professional quality training of admitted students.

## ***2.4 Teacher professional certification provides an opportunity***

With the guiding ideology of "building a system of monitoring and certification of teacher education quality with Chinese characteristics", the physical education major focuses on cultivating sports talents under the integrated development of physical education. The educational concept of professional certification lays the foundation for the reform of professional course evaluation system [2] and provides the criterion for adjustment for the reform of professional course evaluation system. For example, the "Secondary education professional certification standards Level 2", "Secondary education professional certification standards Level 3" certification standards of "objective evaluation", "curriculum evaluation", "external evaluation", "continuous improvement", "internal monitoring", "academic monitoring", once again reflect the importance of establishing an evaluation mechanism. The reform of physical education curriculum evaluation system has become the foothold of the implementation of teacher professional certification, and is an important part of the smooth development of teacher professional certification. The teacher's professional certification has become an important opportunity for the reform of the curriculum teaching evaluation system of physical education in colleges and universities.

To sum up, the reform of PE curriculum evaluation system based on professional certification is conducive to line the construction of PE curriculum in China up with the international standards. Curriculum teaching reform has been going on, but there are still many: some colleges tend to emphasize skills rather than theories in the assessment, and students can demonstrate good actions when they enter social work, but they lack the ability to write lesson plans; In the specific explanation of technical movement, Student are not professional enough, In the organization of track and field sports meeting students are not able to undertake the task alone, a far cry from physical education teacher talent training goal. Colleges and universities only take examination scores and skill evaluation as the final scores of students, and lack quality and comprehensive ability evaluation [3]. The evaluation method cannot be an accurate basis for testing the learning effect, and the evaluation criteria are subjective and arbitrary. To carry out the professional certification of teachers, we must reform the curriculum plan of training teachers. As the core course of physical education in local colleges and universities, the reform of the evaluation system of track and field general courses has become the number one priority.

### 3. Research design and process

#### 3.1 Research objectives and methods

Based on the background of professional certification of teachers, this paper investigates, collects and analyzes the teaching practice data of teachers and students in Taishan University, taking the teaching evaluation of track and field general course of physical education major as the research object. The research methods used in this paper mainly include: literature, field investigation, logical analysis, SPSS data processing and other methods.

#### 3.2 General track and field courses of physical education major of Taishan University

The Sports Department of Taishan University has three undergraduate majors: physical education, social physical education guidance and management, and aerobics, among which physical education is the earliest established and has the largest enrollments, with the annual enrollment up to 120. Curriculum is the primary object of curriculum evaluation.

##### 3.2.1 Course content setting

The track and field course content of TaiShan University's physical education major is relatively comprehensive, including short distance running, hurdling, middle distance running, relay running, long jump, high jump, shot put, javelin, discus and track and field theory course .

##### 3.2.2 Class setting

The survey on the arrangement of class hours of track and field general course in physical education major of Taishan University in recent years shows that: The general track and field courses of physical education major of the college are set in the whole stage of freshman year, with a total of two semesters, 80 class hours before 2021 (32 class hours in the first semester, 48 class hours in the second semester). Since 2021, the general course hours of physical education major track and field have been changed to 136 class hours (64 class hours in the first semester, 72 class hours in the second semester), as shown in Table 1.

Table1 Schedule of class hours

2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
32+48=80	32+48=80	32+48=80	64+72=136	64+72=136

#### 3.3 Teaching evaluation status of track and field general course in physical education major of Taishan University

##### 3.3.1 Evaluation of students

The evaluation of students in the track and field general course of physical education major of Taishan University is the students' course scores, which have been carried out in three forms over the years through ordinary scores, mid-term tests and final examinations (during the epidemic period, online teaching and examination are implemented, and the examination forms are mainly regular assignments and final online examination). The usual score is composed of theoretical homework and classroom performance. The mid-term test is conducted in the form of in-class test. The final exam is conducted in the form of teaching and research group exam, and the mid-term test and the final exam are evaluated by two standards: technical assessment and standard achievement.

##### 3.3.2 Evaluation of teachers

TaiShan University's evaluation of teachers is called the teacher's ethics assessment. The evaluation subject and level are mainly the students taught by the teacher, the assessment team of the department (composed of the teaching research team and the department leader), and the assessment team of the school's teaching quality monitoring center (composed of the school's teaching quality monitoring center personnel and the professional teachers employed by the center).

##### 3.3.3 Evaluation of the course

Taishan University's evaluation of the course is the evaluation of the teacher, not the evaluation of the whole course.

**3.3.4 Analysis of the standard of track and field general courses for physical education major of Taishan University**

In this study, 44 students from 2 classes were randomly selected for long jump, high jump, 100 meters and hurdles, SPSS model was used for data processing, as shown in Table 2.

*Table 2 Student performance statistics*

category index	Long jump	50-meter hurdles	100-meter	high jump
Number of cases	85	44	44	41
Mean value	5.3227( m)	9.3632(second)	12.3752(second)	144.0244( cm)
Standard deviation	0.35561	0.73447	0.35974	9.16375
variance	0.126	0.539	0.129	83.974

Skewness and kurtosis were analyzed by spss data editor, and it was found that:

(1) Deviation of long jump and deviation standard error calculation  $Z\text{-score} = \text{deviation} / \text{deviation standard error} = 0.718 / 0.261 = 2.7509 > 1.96$ . Kurtosis and kurtosis standard error calculation  $Z\text{-score} = \text{kurtosis} / \text{kurtosis standard error} = -0.988 / 0.517 = -1.911 > -1.96$ . The calculated values of the two Z-scores are both greater than  $\pm 1.96$ , and the calculated values of Z-scores that meet the normal distribution should be between  $\pm 1.96$ , so it is concluded that the long jump scores do not meet the normal distribution.

(2) Deviation of jump and deviation standard error calculation  $Z\text{-score} = \text{deviation} / \text{deviation standard error} = -0.677 / 0.369 = -1.834 > -1.96$ . The calculation of kurtosis and kurtosis standard error  $Z\text{-score} = \text{kurtosis} / \text{kurtosis standard error} = 2.837 / 0.724 = 3.918$  is much higher than 1.96, so it is concluded that the high jump results do not conform to the normal distribution.

(3) Calculation of skewness and skewness standard error of hurdles  $Z\text{-score} = \text{skewness} / \text{skewness standard error} = -0.492 / 0.357 = -1.378 > -1.96$ . Kurtosis and kurtosis standard error calculation  $Z\text{-score} = \text{kurtosis} / \text{kurtosis standard error} = -1.682 / 0.702 = -2.396$  is much smaller than -1.96, so it is concluded that the score of fifty meters hurdles does not conform to the normal distribution.

(4) Calculation of skewness and skewness standard error of 100 meters running  $Z\text{-score} = \text{skewness} / \text{skewness standard error} = -0.107 / 0.357 = -0.299$  is much higher than -1.96. The calculation of kurtosis and kurtosis standard error  $Z\text{-score} = \text{kurtosis} / \text{kurtosis standard error} = -1.566 / 0.702 = -2.230$  is much smaller than -1.96, so the results of 100 meters do not conform to the normal distribution.

**3.4 Research results and analysis**

According to the above data results, the results of 44 students in physical education major of Taishan University in long jump, high jump, 100 meters and hurdles do not conform to the normal distribution, and there are unreasonable phenomena. The deep reason is that the teaching evaluation of track and field general course in physical education major of Taishan University is not reasonable, and there are many problems in teaching evaluation content, teaching evaluation means, teaching evaluation standards and teaching evaluation results feedback.

**4. Optimization strategy of teaching evaluation of track and field general course in physical education major of Taishan University**

**4.1 Establish the correct concept of teaching evaluation of track and field general courses**

Professional certification implements the concept of student center, output orientation and continuous improvement, which runs through the whole process of teaching and educating people. The three concepts not only determine the main position of normal university students, but also require attention to the actual learning effect of students, and emphasize the comprehensive evaluation of the teaching process. The evaluation concept of teaching course is the basis to guide the whole process of teaching evaluation. Teaching evaluation should strictly implement the concept of "student-centered, output-oriented and continuous improvement" of professional certification, and really focus on the "output-oriented" of professional course teaching.

#### ***4.2 Establish evaluation criteria for future value orientation***

On the whole, scholars believe that teaching evaluation in different periods can be divided into three categories: internal evaluation, external evaluation and future evaluation. The internal evaluation mainly refers to the internal activities of the department, such as the training program, the curriculum syllabus and the teacher's teaching plan, as well as the specific teaching objectives and teaching progress, and determines the quality of the course teaching according to the realization of the planned objectives of knowledge transfer. External evaluation refers to the provision of educational services to meet the talent needs and training expectations of stakeholders outside education. At this time, the task of teachers is no longer just to transfer knowledge to students, but to provide talents education services for the society, so that they can meet the competitiveness of the job market. If teachers conduct curriculum teaching based on externally established high standards and provide students with talents services expected by the society, then curriculum teaching is more effective. In the 21st century, the talent training of colleges and universities should pay attention to promoting the sustainable development of students so that they can adapt to the changes of the future society, that is, to train students to reserve the ability to face the future society in advance. At this time, teachers focus on promoting students to achieve significant growth performance, then curriculum teaching will be considered effective.

#### ***4.3 Several suggestions on the optimization of teaching evaluation of track and field general course***

##### ***4.3.1 Enrich the content of teaching evaluation***

The teaching evaluation of track and field courses for physical education majors in most colleges and universities mainly consists of three aspects: theoretical examination, technical assessment and standard test. Therefore, the content of teaching evaluation of track and field general courses should make a comprehensive evaluation of students' core quality evaluation, not only examining students' theoretical knowledge, professional and technical completion ability, physical quality inherent ability, but also evaluating students' teaching skills, such as the ability to master middle school textbooks, the ability to design middle school physical education courses, and the ability to practice teaching and operation. Enriching the diversity of teaching evaluation content is the most important aspect of teaching ability evaluation.

##### ***4.3.2 Pay attention to the diversity of evaluation methods***

The teaching evaluation of track and field courses of physical education major in colleges and universities is mainly based on teacher evaluation, so the evaluation method should be the combination of student self-evaluation, group mutual evaluation and teacher group evaluation. In the evaluation gradient, not only the evaluation of students by the teaching and research group of teachers, but also the evaluation of students by the college or even the school should be reflected. In the form of evaluation, the teaching evaluation of the track and field general course of physical education major of Taishan University is not only an evaluation of course results, but also in the form of tests and examinations, and should be supplemented by the evaluation of sports activities and sports competitions.

##### ***4.3.3 Reflect the gradual progress of teaching standards***

There is no doubt that the development of any standard should be gradual. Evaluation standards should keep up with the pace of development and the requirements of the times, in order to accurately measure the corresponding test objects and realize the due value and significance of teaching evaluation. The College shall timely analyze and monitor the implementation of the standards, judge their rationality and effectively revise them. According to the actual learning time of students at each level, make timely adjustment to the standard.

##### ***4.3.4 Emphasize timely feedback of evaluation results***

In the teaching evaluation of the track and field general course of physical education major of Taishan University, the teachers only know the results of the students they teach and can not get other relevant information in time. A linkage mechanism should be established, and a platform should be set up to exchange the evaluation content and results of students, other teachers and department leaders, so as to analyze students' learning effect and their own teaching level through horizontal comparison, which is also conducive to teachers' comprehensive reflection on their own teaching level.

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