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**Design and Implementation of Talent  
Cultivation Program for Economic  
Management under the Background of  
Emerging Engineering Education**



**Abstract:** - In the context of rapid development of sports economy and management majors, traditional educational models have struggled to meet the demands of talent cultivation, making it urgent to innovate talent cultivation models. Based on this, the study selects 10 universities as research subjects and adopts literature review and statistical analysis to analyze the current status of sports economy and management majors in universities and the issues in the process of talent cultivation. The research results indicate that there are several problems in the talent cultivation process of sports economy and management majors, including unclear cultivation objectives, imperfect curriculum systems, lack of teaching staff, and insufficient training bases. It is necessary to continuously update educational philosophies, clarify disciplinary attributes, and reform teaching designs in accordance with national standards, thereby effectively enhancing the quality of professional talent cultivation and providing high-quality talents for the development of China's sports industry.

**Keywords:** OBE; Sports Economy and Management; Talent Cultivation; Cultivation Program; Design and Implementation

Since the Ministry of Education merged undergraduate sports economy and sports industry management into the major of sports economy and management in 2012, this major has gradually begun to develop. Especially under the background of emerging engineering education, the innovation of talent cultivation models for sports economy and management majors has become an inevitable trend [1]. Currently, there is relatively extensive research on talent cultivation programs both domestically and internationally. Some studies point out that different talent cultivation models correspond to different talent cultivation programs, and talent cultivation programs serve as an innovative hallmark of talent cultivation models, with a corresponding correlation between them [2]. Some research suggests that only by clarifying the objectives and specifications of talent cultivation can the rationality of talent cultivation programs be ensured, and it is pointed out that specific implementation methods and processes for talent cultivation can be designed based on the overall approach of talent cultivation models [3]. Other research indicates that talent cultivation programs are crucial documents that can provide corresponding guarantees for teaching quality and cultivation specifications, and they can also provide a basis for the organization of teaching activities and the design of teaching tasks [4]. Additionally, research highlights that talent cultivation programs can provide a basis for evaluating teaching effectiveness and detecting teaching quality, playing a significant role in measuring the quality of talent cultivation [5]. Regarding the design of talent cultivation programs, some studies have discussed the design of talent cultivation programs from aspects such as guiding ideologies and curriculum systems [6]. Other research has proposed design ideas for talent

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cultivation programs from aspects such as special teaching reform funding and student employment structures, mainly focusing on advancing curriculum ideological and political reforms, transforming professional courses, and innovating teaching models [7].

Based on existing research, this paper studies the design and implementation of talent cultivation programs for economic management majors under the background of emerging engineering education, aiming to provide references for talent cultivation in economic management majors in universities.

## **1 Research Objects and Methods**

### **1.1 Research Objects**

In this study, talents in sports economy and management from 10 universities were selected as the research objects.

### **1.2 Research Methods**

#### 1.2.1 Literature Research Method

In the search bars of websites such as CNKI and Wanfang, keywords like "economics and management" and "talent cultivation" were entered to retrieve and count relevant literature, and the talent cultivation models mentioned in the literature were analyzed [8].

#### 1.2.2 Statistical Analysis Method

Relevant data were queried from official websites, and combined with the results of expert interviews, relevant data on sports economy and management majors in universities were collected. Excel was used to statistically summarize the data, and based on this, the current status and existing issues of talent cultivation in sports economy and management majors in universities were analyzed, laying the foundation for further research.

## **2 Analysis and Discussion**

### **2.1 Analysis of Talent Cultivation in Sports Economy and Management Majors**

#### 2.1.1 Current Status of Talent Cultivation

##### (1) Development Process

Since 2012, when the Ministry of Education merged undergraduate sports economy and sports industry management into the major of sports economy and management, sports economy and management majors in Chinese universities have ushered in new development opportunities. According to relevant data, by the end of 2019, more than 30 universities in China had established sports economy and management majors, and the number of such majors has shown a trend of increasing annually [9].

##### (2) Enrollment

Since the establishment of sports economy and management majors, the number of students enrolled in these majors has gradually increased. In this study, the enrollment situation of sports economy and management majors in 10 universities was mainly investigated, as shown in Figure 1.

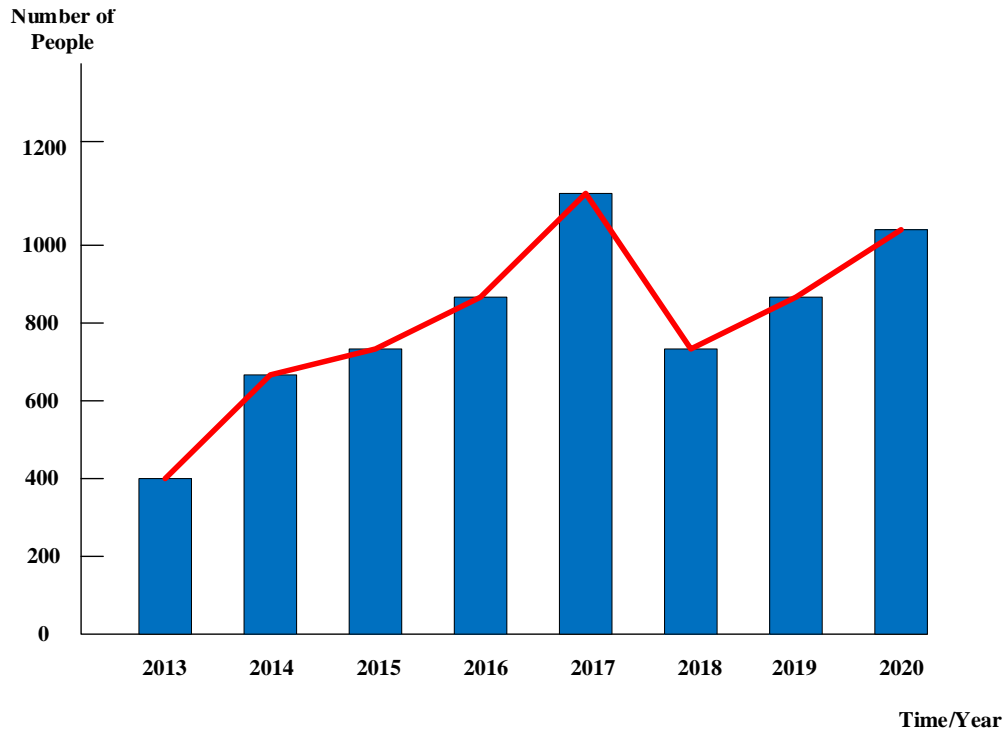


Figure 1: Enrollment Numbers of Sports Economics and Management Major in Different Universities Over Time

As can be seen from Figure 1, from 2013 to 2017, the number of students enrolled in sports economy and management majors showed a gradual growth trend, reaching 967 by the end of 2017. After 2018, the number of students enrolled gradually decreased. According to statistics, there were a total of 4,564 students in sports economy and management majors from 2013 to 2018. After 2020, as the sports industry began to gradually develop, the demand for talent gradually increased, making it difficult for talent to meet the development needs of the sports industry.

(3) Teaching Staff

Through the analysis of Table 1, it is known that among the surveyed universities, most of the teachers at Central University of Finance and Economics and Shanghai University of Sport are associate professors, indicating a strong teaching staff. At Beijing Sport University and Nanjing Sport Institute, most of the teachers are teaching assistants, indicating a large space for teacher development but a lack of teaching experience, which leads to unsatisfactory talent cultivation outcomes. At Hebei Sport University, the professional teachers are mainly associate professors and professors, with less room for development, lacking motivation in the actual teaching process. Overall, the professional titles of teachers are relatively unbalanced in most universities.

Table 1: Educational Background of Teachers

Serial Number	University	Percentage of Associate Professors and Above (%)	Percentage of PhD Holders and Above (%)
1	Beijing Sport University	29.85	100

2	Nanjing Sport University	33.29	20.01
3	Central University of Finance and Economics	77.01	36.01
4	Shanghai University of Sport	79.01	86.03
5	Hebei Sport University	29.49	90.10
6	Hubei University of Economics	36.38	36.69

Data source: Official websites of various schools.

For sports economy and management majors, most teachers hold master's degrees, and a relatively high proportion hold doctoral degrees. However, during the investigation, it was found that only one-third of them are specialized in economics and management. Although the teachers have high academic qualifications, most of them are interdisciplinary and cross-professional.

Table 2: Number of Full-time Teachers in Sports Economics and Management Major in Some Universities

Serial Number	University	Number of Full-time Teachers (%)	Student-Teacher Ratio (%)
1	Capital University of Physical Education and Sports	8	18.39
2	Shandong Sport University	5	31.27
3	Hubei University of Economics	10	22.28
4	Central University of Finance and Economics	15	4.01
5	Nanjing Sport Institute	14	31.09
6	Shanxi University of Finance and Economics	13	29.35
7	Xi'an Physical Education University	7	28.77

Data source: Official websites of various schools.

In professional certification standards, it is required that the student-teacher ratio is less than or equal to 18:1. Through the analysis of Table 2, it is known that the student-teacher ratio at Central University of Finance and Economics is 4:1, meeting the professional certification requirements. Furthermore, through investigation, it was found that there are more economics and management teachers in finance and economics universities, while there are fewer in sports universities, and the student-teacher ratio does not meet professional certification standards.

## (4) Curriculum Structure System

The major courses of this program mainly include sports, economics, and management. In the actual teaching process, great emphasis is placed on cultivating students' practical abilities. Through investigation, it was found that practical courses and elective courses are integrated together in most universities without separate distinction. See Table 3 for details.

Table 3: Credit Ratio of Sports Economics and Management Major in Some Sports Colleges and Universities

Course	Public Compulsory Course		Major Compulsory Course		Elective Course		Practical Course	
	Credit	Proportion/%	Credit	Proportion/%	Credit	Proportion/%	Credit	Proportion/%
	Beijing Sport University	35	22.87	39	25.49	36	23.48	38
Nanjing Sport Institute	44	25.78	55	32.38	38	22.35	33	19.35
Shanghai University of Sport	39	25.78	56	36.35	42	27.25	17	11.01
Chengdu Sport University	49	25.28	93	51.01	16	9.01	24	13.01
Wuhan Sports University	44	25.48	47	26.77	52	28.55	34	19.35
Central University of Finance and Economics	64	42.65	45	30.1	32	21.28	9	6.01
Shandong Sport University	38	23.74	39	36.75	37	23.07	63	39.35

Data source: Talent cultivation programs of various universities.

Through the analysis of Table 3, it is found that Chengdu Sport University has the highest number of credits for required major courses, reaching up to 93 credits, while the rest of the universities are roughly similar, with credits for required major courses ranging from 40 to 60 credits, accounting for 25% to 40% of the total credits.

Shandong Sport University has the highest number of credits for practical courses, which is 63 credits, accounting for 39.35%. The credits for practical courses in other universities are relatively low, none exceeding 40 credits. This indicates that most universities do not emphasize the construction of practical courses, leading to a lack of corresponding practical abilities among students.

### 2.1.2 Issues in Talent Cultivation for Sports Economy and Management Majors

#### (1) Unclear cultivation objectives

Currently, there are no clear cultivation objectives for sports economy and management majors, and a lack of precise positioning is evident. This makes it difficult to meet the development needs of the sports industry and seriously restricts the economic development of the sports market.

#### (2) Incomplete curriculum system

Currently, the curriculum content of sports economy and management majors is incomplete, and the structure is unreasonable. For example, sports universities offer a wide range of sports programs, while financial and economic universities focus on theoretical training and do not provide students with practical opportunities during the teaching process. This not only affects students' professional awareness but also restricts the development of their innovative and entrepreneurial abilities, making it difficult for students to meet the actual demands of their positions [10].

#### (3) Lack of teaching staff

As the main force in talent cultivation, a complete teaching staff plays a very important role in improving the quality of talent cultivation. During the investigation, it was found that most universities have a shortage of sports teachers, and the few available teachers lack corresponding practical skills, which restricts the development of sports practical courses. At the same time, teaching methods are difficult to meet the individualized development needs of students, leading to a serious impact on the cultivation of students' innovation ability and practical skills, which restricts the individualized development of students to some extent.

#### (4) Lack of training bases and platforms

In the process of carrying out professional teaching, there is a lack of corresponding practical bases and platforms. Currently, only some universities have established sufficient on-campus and off-campus training bases, such as the sports economy and management major at Beijing Sport University. Financial and economic universities are severely lacking in training bases and have issues such as outdated teaching conditions and inadequate management systems, which seriously affect the cultivation of professional talents.

## 2.2 Teaching Design

To effectively enhance the quality of talent cultivation for sports economy and management majors, this research, guided by curriculum standards and teaching objects, conducts professional teaching design based on the OBE concept.

### 2.2.1 Internal and External Needs and Cultivation Objectives

The OBE concept points out that when designing cultivation objectives, it is necessary to carry out corresponding design according to internal and external needs. The design of professional cultivation objectives is also the same. It needs to be designed according to the actual needs of positions and combined with the disciplinary nature of economics and management majors. This can not only ensure the rationality of professional cultivation objectives but also conduct targeted talent cultivation.

### 2.2.2 Cultivation Objectives and Graduation Requirements

Generally, there is a certain correlation between cultivation objectives and graduation requirements, but there are also corresponding differences between them. Cultivation objectives mainly focus on what students can do, while graduation requirements emphasize what students engage in. Cultivation objectives involve graduates, teachers, and employers, while graduation requirements involve teachers, students, and graduates. Therefore, in the process of formulating graduation requirements, it is necessary to combine the OBE concept and proceed based on the resource advantages of the school and industry demands. For students majoring in sports economy and management, they need to possess the following abilities after graduation:

- (1) Knowledge objectives: Proficiently grasp corresponding subject knowledge and job responsibilities, and have a corresponding understanding of the development of the sports market and industry dynamics, enabling practical innovation in the work process.
- (2) Ability objectives: Possess corresponding autonomous learning abilities, strong communication skills, and critical thinking, and be able to independently conduct data analysis and project execution.
- (3) Position objectives: Proficiently master management methods and obtain corresponding qualification certificates. In the process of acquiring market information, be able to skillfully use advanced technical means and have a sense of responsibility and dedication in the work process.

### 2.2.3 Graduation Requirements and Curriculum System

Based on the above requirements and the OBE concept, following the principles of openness, coordination, and dynamism, a corresponding professional curriculum system is constructed in conjunction with industry demands and policy documents. Currently, most universities emphasize the cultivation of students' innovative abilities and have established innovation and entrepreneurship education in their curriculum systems. At the same time, in response to individual interests and hobbies, elective courses are offered to effectively promote the individualized development of students. Therefore, it is necessary to construct a professional correlation matrix based on the actual situation of university curriculum development, update the course content according to graduation requirements and position demands, and judge the rationality of the curriculum settings on this basis. This can not only effectively improve the quality of curriculum teaching but also ensure that talents better meet actual demands.

### 2.2.4 Graduation Requirements and Teaching Content

#### (1) Courses and Graduation Requirements

The OBE concept emphasizes that teaching content should be designed based on graduation requirements. For

the major of Sports Economy and Management, its teaching content includes general education, professional education, and practical teaching. The relationship between different course settings and graduation requirements is detailed in Table 4.

Table 4: Relationship Matrix between Curriculum Provision and Graduation Requirements for Sports Economics and Management Major

Course Title/Graduation Requirements	1.1	1.2	.....	10.3
1	H	H	.....	——
2	H	H	.....	——
.....	——	——	.....	——
57	——	——	.....	M

In Table 4, "H", "M", and "L" respectively indicate high, medium, and low levels of support. In this research process, using data from the Sports Economy and Management major in Shandong in 2022 as a sample, based on theoretical and practical courses, it is concluded that practical courses are difficult to meet job demands.

(2) Curriculum Planning and Graduation Requirements

In the process of designing the curriculum plan, it mainly involves teaching subjects, subject order, allocation of study hours, and teaching arrangements. Among them, the setting of teaching subjects is of paramount importance. For the major of Sports Economy and Management, the course order is compulsory courses, discipline platform courses, and core professional courses [11].

(3) Course Standards and Graduation Requirements

The OBE concept points out that courses should be set up based on students' interests and, on this basis, corresponding teaching objectives should be designed according to the differences among students, thereby effectively promoting students' self-development [12]. The course objectives for the Sports Economy and Management major are mainly divided into the following points: Firstly, students can grasp relevant subject knowledge and basic skills and can solve problems through the acquired knowledge; secondly, students are required to master the methods of collecting information, and it is required that during the teaching process, case teaching and task-driven methods can be used to cultivate students' problem-solving abilities; thirdly, students are required to grasp the management content and work procedures of sports business and establish correct professional ethics in the work process.

**2.3 Teaching Implementation**

In the OBE concept, it is pointed out that during the teaching implementation process, learning outcomes should be used as a guide, and teaching plans and strategies should be employed to ensure the smooth implementation of teaching, thereby effectively enhancing the quality of professional talent training.

2.3.1 Determining Learning Outcomes

In the OBE concept, the learning outcomes of the Sports Economy and Management major are divided into the



following aspects:

#### (1) Classroom Teaching Implementation

To ensure the smooth implementation of classroom teaching, it is necessary to not only emphasize exercises and tests in the classroom but also strengthen the reinforcement of knowledge points. In classroom teaching, the role of multimedia can be fully leveraged to stimulate students' interest in learning, which not only effectively improves teaching efficiency but also enhances teaching effectiveness. Additionally, during the teaching process, methods such as demonstration teaching and case teaching can be used to enhance the interest of the classroom and stimulate students' interest in learning, which plays a very important role in improving students' practical and innovative abilities. In terms of teaching evaluation, methods such as standardized tests and selective exams can be used to stimulate students' enthusiasm for participation in evaluation, which not only allows for a deep analysis of students' learning outcomes but also helps to improve teaching quality.

#### (2) Unit Learning Outcomes

For unit teaching, it is necessary to pay close attention to the characteristics of students during the teaching process and determine teaching objectives and strategies based on the actual development of students. For the Sports Economy and Management major, in the process of formulating learning outcomes, students' abilities should be used as a guide to achieve a combination of diversified unit objectives and teaching strategies, and teaching activities should be designed based on teaching content, order, and teaching organization.

#### (3) Course Learning Outcomes

For course learning outcomes, the corresponding teaching implementation is mainly carried out from the aspects of teaching subjects and course evaluation. By using course evaluation throughout the course, appropriate adjustments are made to ensure the scientific and rational nature of course implementation [13].

#### (4) Professional Learning Outcomes

For professional learning outcomes, the curriculum should be taken as the core, with a focus on students' abilities in the process of professional studies. In the process of evaluating learning outcomes, graduation thesis or exam scores can be used to evaluate students' professional learning outcomes, and evaluations can also be conducted through teacher-student conversations, data assessments, and other methods.

### 2.3.2 Construction of the Curriculum System

In the process of constructing the curriculum system, it is necessary to follow the national education and teaching laws and regulations and base it on the principles of backward design and forward implementation to build the corresponding curriculum system, as shown in Figure 2.

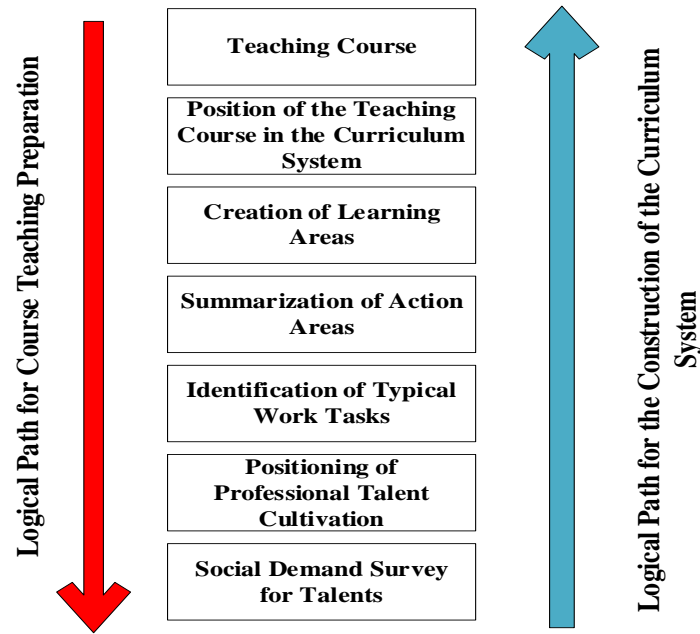


Figure 2: Logic of Curriculum System Construction

### 2.3.2 Construction of the Curriculum System

In the process of constructing the curriculum system, it is necessary to follow the national education and teaching laws and regulations and base it on the principles of backward design and forward implementation to build the corresponding curriculum system, as shown in Figure 2.

In the design and implementation of the curriculum, the main focus is on formulating corresponding training objectives and learning plans from the aspects of knowledge, abilities, and job positions. By constructing the corresponding school-enterprise cooperation platform, designing unit teaching, and adopting different teaching methods, the learning efficiency can be effectively improved. Based on this, effective evaluation of curriculum outcomes is conducted.

### 2.3.3 Determination of Teaching Strategies

For teaching strategies, they mainly include aspects such as teaching conditions, student situations, and teaching order, which can serve as guidance for the teaching process and play a very important role in achieving specific teaching objectives.

## 3. Conclusions and Recommendations

### 3.1 Conclusions

Currently, there are many issues in the process of training talents in the Sports Economy and Management major, which seriously affect the improvement of talent training quality. Although most universities have begun to emphasize the cultivation of students' comprehensive literacy, there are still corresponding issues in job position matching. Today, with the rapid development of the sports industry, the OBE training model can meet the actual needs of matching job positions and plays an important role in professional talent training.

### 3.2 Recommendations

First, update the school-running concept. In the process of running a school, it is necessary to strengthen the training of managers and educators, enhance communication and cooperation between them, and achieve coordinated operation of the school-running concept, objectives, and systems. This can not only eliminate disagreements between managers and educators but also further improve the quality of professional talent training. At the same time, it is also necessary to clarify the disciplinary attributes, especially in today's era of rapid development of the sports industry, where the demand for talents in Sports Economy and Management is showing a gradual growth trend. Therefore, it is necessary to incorporate the Sports Economy and Management major into the category of sports disciplines and carry out corresponding top-level design from the disciplinary level. This can not only effectively solve students' employment problems but also effectively improve the quality of talent training.

Second, reform teaching design. With students as the main body of teaching, teaching design should be carried out according to corresponding teaching laws and regulations. This can not only effectively improve teaching quality but also promote the comprehensive development of students, making talent training more in line with social needs.

Finally, improve teaching implementation. In the process of teaching management, it is necessary to strictly follow teaching laws and regulations, adhere to the principle of updating teaching concepts, and gradually enrich teacher evaluation methods. At the same time, the main body of teaching management should be students, and management and implementation should be carried out based on the actual situation of students, continuously improving their management capabilities. This plays a very important role in enhancing overall teaching quality.

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