

Quantitative Analysis and Tendency of the Causes of the Decline in the PE Teaching Quality

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Abstract. There are many influencing factors in public PE teaching. With the enrollment expansion of universities in our country, there are obvious deficiencies in teaching resources. And with this, the update of teaching methods is slow, affecting the quality of public physical education. There is no reliable way to solve the weight distribution problem of various evaluation factors in PE teaching and training evaluation. In this paper, we use AHP method to analyze and study many factors that affect the quality of teaching and training, and establish its analytical model. We found that the main factors affecting the quality of physical education are sports venues, facilities, faculty, quality of students and teaching management.

1. Introduction

The expansion of enrollment in universities is an important strategy for our country's higher education transition from the elite education stage to the popular education stage. It is of great positive significance. However, it is undeniable that it also has a negative impact on the quality of higher education. Environment, the decline in teaching quality is more serious. This article tries to find out the main reason that causes the decline of PE teaching after the expansion of enrollment and the related countermeasures to solve the problem.

Expansion of college enrollment is the beginning of the decline in the quality of physical education as education is the nature of education. However, during this process, the teachers' strength, teaching resources and teaching methods all showed obvious deficiencies. Teaching methods and teaching content updates slow, colleges and universities for the degree of emphasis on sports as professional courses, leading to low interest in learning, teaching is not satisfactory. Through the data survey, we can see that the physical education curriculum for undergraduates in our country is less than normal. Students in school and after graduating students are less than normal exercise, the concept of universal sports and lifelong physical education has not been established, teaching facilities, many colleges and universities there are obvious deficiencies, to ensure the development of public sports colleges and universities, we must first understand the specific reason for the decline in quality.

The evaluation of the quality of PE teaching and training is a comprehensive evaluation involving many factors and indicators, and these factors play different roles in the quality of the whole teaching and training. Their mutual influence, the importance (weight) is not the same. How to solve the weight distribution of various factors so far there is not a good way, in this paper, a combination of qualitative and quantitative methods to influence the quality of physical education and training at all levels and many factors to establish an analytical model. We use the famous American systems engineering and operations research experts T. L. Analytic Hierarchy Process (AHP) method created by Professor Saaty. According to the factors that affect the quality of PE teaching and training, the corresponding weight is calculated, which provides an ideal calculation method for reasonably solving the weight distribution of various factors in the comprehensive evaluation of PE teaching and training quality.



2. The Proposed Methodology

2.1 Vulnerability and Improvement of Physical Education Entrance Examination System

Over the years, the reform of physical education in colleges and universities has always been based on quality education, which requires teachers to always pay attention to the students as the main body of learning. Only in this way can people realize the goal of physical education and promote the development of public sports in colleges and universities. At present, the teaching of physical education in our country still neglects the humanistic thinking, which is mainly manifested as that teachers occupy the main position in teaching and teaching is lack of pertinence. To solve this problem, we must first correctly understand the teaching objectives of public physical education in colleges and universities, are committed to achieving a comprehensive training, and promote the overall quality of students through public physical education. As the teaching executor, teachers should change the traditional conception, take the school as the basic education base, make full use of multimedia and other resources, research and analyze the individual characteristics of students, start from the students' needs and interests, make up the people-oriented thinking in the past teaching Missing issue.

One of the main reasons for the inefficient PE teaching in Chinese universities is the repetition of contents and the poor innovation ability. Most colleges and universities sports programs and teaching methods is the continuation of high school or even repeat, which makes students interested in sports to reduce. The education system in the college entrance examination period makes the students place too much emphasis on scores. Only in the university stage can we ensure the realization of the goals of physical education through appropriate changes. First of all, in college, teachers should dilute the impact of the college entrance examination, test methods to classroom testing, mainly in the concept of students and the main essentials of action, teaching always emphasize the formation of the concept of lifelong physical education. The state has a clear system of physical education in colleges and universities, relevant personnel in colleges and universities to study physical education requirements, combined with the practice of colleges and universities choose the correct teaching methods to make up for the system of undergraduate education inefficient problems. Of course, in teaching, teaching assessment should still be emphasized. Some students are more inert and difficult to change their concepts. Only through proper guidance and training can they accomplish this.

2.2 The impact of public sports facilities and to further strengthen

Physical education facilities to enable physical education to carry out the foundation, with the development of sports in China, the public interest in sports even more strong. Colleges and universities as the main training place of education should pay attention to the cultivation of students' physical education quality. However, colleges and universities are not perfect in sports facilities, affecting the efficiency of physical education. Therefore, for universities, it is necessary to further strengthen sports public facilities and enhance the ability to provide public services with specifically from the following aspects. First of all, clear the disciplinary attributes of college physical education, public sports laws and regulations to study, to ensure that the teaching foundation. Secondly, as an independent part of teaching, public sports should have basic facilities to reflect its service functions, make long-term development plans, seize the opportunity and strengthen the construction of stadiums and stadiums. In order to ensure its sustainable development, it can also be properly open to the outside world and obtain economic resources through autonomous development to enhance the ability of teaching and research, improve the public physical education curriculum system, and build a comprehensive teaching platform to improve the competitiveness of disciplines. Finally, we should ensure the full play of its service functions and the multi-characteristics of college sports. Human resources and facilities resources are all important factors that affect teaching, improve the management level of sports public service and the ability of sports science and technology information service to make internal interaction and realize the sharing of physical education

The lack of teaching system is the key factor that affects the quality of public PE teaching. For PE teaching in colleges and universities, the improvement of teaching system is imminent. Most Chinese



colleges and universities teaching system does not start from our school, there is a certain degree of copying phenomenon, less thinking about student personality, teaching evaluation is irrational. In order to solve this problem, PE teaching should be carried out on the basis of the relevant sports laws and regulations, and a sound sports supervision system should be implemented. Strengthen the implementation of physical education in colleges and universities to make it more standardized and scientific, based on the current teaching situation, to develop an effective teacher evaluation system, and to train teachers so that they can face more sports reform issues, highlighting the teaching of physical education the characteristics of students to stimulate interest in learning. Not only to play the role of physical education in class, but also to expand the place of physical education to reduce the impact of space and time on physical education, increase physical education methods, and broaden students' thinking so that they can form their own learning habits and complete physical education. The basic goal, in short, to improve the current teaching system to ensure the quality of physical education.

90.9% of the respondents think that the number of physical education teachers in their schools is insufficient, and 41.7% think that the teachers are over-burdened after the enrollment expansion. A normal university, for example, before the expansion of each physical education teacher about 4 to 6 hours per week, after expanding enrollment is 7 to 10 hours per week. This situation is widespread in colleges and universities after the expansion of enrollment. Many physical education teachers have to deal with too many hours of teaching, and their energy and physical strength are limited. Under such circumstances, the quality of teaching can hardly be effectively guaranteed.

First, the construction of gymnasiums and stadiums in colleges and universities and the purchase of necessary equipment for class must be like the vigorously constructed dormitories and canteens. Schools must refer to the agenda and school leaders should fully realize its importance and urgency. Only these hardware facilities to meet the basic needs of teaching in order to make the quality of physical education can be steadily improved. Second, under the condition that the existing facilities and facilities cannot meet the demand for teaching temporarily, the space and time difference can be fully utilized and the space can be used more than necessary. The use of open space can be utilized according to local conditions. Deepening the reform, teaching methods such as local to ease the current tension in the various venues of colleges and universities.

2.3 Quantitative analysis model

Analytic Hierarchy Process (AHP) was founded in the 1970s by renowned system engineering and operations research expert T from University of Pittsburgh in the United States. The main contents of this method are as follows: The factors involved in the problem to be researched are divided into several levels according to certain affiliation. Using specific mathematical methods to calculate and study the relative importance of each level of factors and their weight values, and finally to measure the value of descending order of primary and secondary to analyze the essence of the solution to the problem center.

When calculating the weight of each element in the second level, the relative importance of each element to the quality of PE teaching and training will be compared with each other according to the degree of influence of each element on the quality of PE teaching and training. The corresponding judgment matrix is:

According to the establishment of the system structure diagram to design a number of judgments matrix, through expert consultation survey, we fill in the judgment matrix to the appropriate value.



| A | | \mathbf{B}_{t} | B_2 | B_3 | | $\mathbf{B}_{\mathbf{l}}$ | C ₁₁ | C ₁₂ | C ₁₃ | C ₁₄ |
|-----------------|-----------------|------------------|-----------------|-----------------|-----------------|---------------------------|-----------------|-----------------|-----------------|-----------------|
| B | | 1 | 1/3 | 1/5 | 5 | C ₁₁ | 1 | 5 | 2 | 4 |
| B | , | 2 | 1 | 1/3 | 3 | C_{12} | 1/5 | 1 | 1/4 | 1/2 |
| B | , | 5 | 3 | 1 | | C_{13} | 1/2 | 4 | 1 | 3 |
| | , | | | | | C_{14} | 1/4 | 2 | 1/3 | 1 |
| B_2 | C ₂₁ | C ₂₂ | C ₂₃ | C ₂₄ | C ₂₅ | B_3 | C ₃₁ | C ₃₂ | C ₃₃ | C ₃₄ |
| C ₂₁ | 1 | 3 | 4 | 1/2 | 2 | C ₃₁ | 1 | 3 | 6 | 5 |
| C_{22} | 1/3 | 1 | 2 | 1/4 | 1/2 | C ₃₂ | 1/3 | 1 | 3 | 2 |
| C ₂₃ | 1/4 | 1/2 | 1 | 1/5 | 1/3 | C ₃₃ | 1/6 | 1/3 | 1 | 1/2 |
| C_{24} | 2 | 4 | 5 | 1 | 3 | C_{24} | 1/5 | 1/2 | 2 | 1 |
| Cos | 1/2 | 2 | 3 | 1/3 | 1 | | | | | |

Figure 1. Judgment matrix

2.4 Strengthen the construction and management of PE teachers

First, we should step up induction training for young teachers in physical education teaching posts and require them to observe more than high-quality courses and openly give lectures before posting to meet the teaching standards. The young teachers should also take part in post-secondary education Training and other multi-channel, multi-way to improve physical education teacher's education and teaching level; Second, change the promotion, appraisal, only the level of scientific research, research papers, should take effective measures to encourage teachers to actively join the teaching and teaching reform, the Teaching and promotion, appraisal linked to improve the teacher's class allowance and job allowance, to mobilize the enthusiasm of teachers. Thirdly, in the PE teaching, the competition mechanism should be introduced. The PE class should also allow the students to choose the teachers, improve the class time and post allowance of the excellent teachers, and reduce the remuneration of the teachers with poor teaching level accordingly. In severe cases, they are required to lay off and have pressure to make the teachers Consciously go to study business, improve teaching standards, thereby stabilizing and gradually improve the quality of physical education.

We suggest that college physical education should adopt a credit system that is apt to teach students according to their aptitude to increase students' interest, provide more courses that students are interested in and conducive to lifelong sports habits, allow students to choose their own courses, teachers and learning process, and have more students to spare Learn a few courses, poor foundation students do not have to worry about keeping up. This can be adapted to individual differences in students, so as to teach students in accordance with their aptitudes so that teaching materials and teaching methods to help teachers more targeted and effective, so that students of different physical fitness and hobbies can be effectively exercise and improve.

3. Conclusion

At present, our country is implementing the PE teaching reform, teaching efficiency has been improved. However, due to the many influencing factors of PE teaching, the efficiency of teaching is not ideal and even leads to the decline of teaching. For college teaching staff, we must carefully analyze the reasons for this phenomenon, the factors that affect the quality of physical education analysis. Take the corresponding method completely solve the reform of physical education teaching stone. Ensure the efficiency of physical education in college, promote the improvement of students 'physical education and play an active role in the students' career. Expand the function of the assessment panel and reinforce its role as a relatively independent organization to ensure that assessments are more impartial and objective. Only through the scientific evaluation of some sports teaching quality and supervision and control, in order to then make outstanding physical education teachers come to the fore.



References

- [1]. Curran, T. and Standage, M., 2017. Psychological needs and the quality of student engagement in physical education: teachers as key facilitators. Journal of Teaching in Physical Education, 36(3), pp.262-276.
- [2]. Wang, Y., Li, J. and Wang, H.H., 2017. Cluster and cloud computing framework for scientific metrology in flow control. Cluster Computing, pp.1-10.
- [3]. Yoon, K. and Armour, K.M., 2017. Mapping physical education teachers' professional learning and impacts on pupil learning in a community of practice in South Korea. Physical Education and Sport Pedagogy, 22(4), pp.427-444.
- [4]. Chen, W., Hammond-Bennett, A. and Hypnar, A., 2017. Examination of motor skill competency in students: evidence-based physical education curriculum. BMC public health, 17(1), p.222.
- [5]. Zhang, Y., 2017. 13. Research on the Computer-platform-based Procedural Management Models in Physical Education in Colleges. Revista de la Facultad de Ingeniería, 32(11).

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