

## **Application and Innovation Strategy of Science in Physical Education Center of Colleges and Universities**

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**Abstract:** With the rapid development of the society, the competition of competitive sports is becoming increasingly fierce. For athletes, the role of physical training is particularly important. In physical education, psychological quality, which affects the state of sports, cannot be ignored, and sometimes even plays a decisive role in competitive games. Physical education psychology is a kind of specialized research, in the process of physical education, strengthening the application of physical education psychology plays a fundamental role in physical education teaching, is an important part of physical education psychology. Therefore, in the daily teaching process, coaches should make psychological adjustment to students according to their own psychological characteristics, so as to promote their good psychological state, which is conducive to the performance of the competition. Therefore, it is very necessary to strengthen the application research of sports psychology in physical education.

### **1. The Connotation of Sports Psychology**

In China, sports psychology is a discipline derived from educational psychology and sports psychology in recent years, so the research of sports psychology in China is still in its initial stage. As far as the concept of sports psychology is concerned, it is the foundation of the research of sports psychology phenomenon, the purpose, task and content of sports are clearly expounded in it, guiding people to learn about sports education, and it also plays a certain role in improving the level of psychological scientific research.

Now sports psychology research has a very rich content, its development speed is also very fast. According to the characteristics of the content and structure of sports psychology, we should study from the following aspects: 1. According to the general development trend of physical education in our country, this paper studies and explores the basic characteristics of adolescent physiology and psychology. 2. From the psychological characteristics of physical exercise. 3. From the psychological characteristics of the overall quality of our national sports foundation on the promotion of research. 4. Conduct research on the relationship between physical exercise and study. 5. Study on the guiding effect of physical education on daily learning. 6. Research on the overall psychological and mental health aspects of physical activity. 7. Research on the psychological factors of sports learning in talent cultivation. Only by clarifying the content and method of our country, can we give full play to the educational function of sports psychology in China.

### **2. The Significance of the Application of Sports Psychology in College Physical Education Teaching**

Sports teaching guides the development of the sports training, through physical education teaching, students should first have a knowledge of sports knowledge and skills, and then to carry out a strict and scientific training system, so that is conducive to consolidating movement technology, improve the body quality, improve performance, in order to better play out their own

level in competitive games, get good grades. In the process of physical education, strengthening the application of physical education psychology plays a fundamental role in physical education and is an important part of physical education psychology.

### **3. Factors Affecting the Formation of College Students' Physical Ability**

#### **3.1. There are Still Some Deficiencies in Physical Education in Colleges and Universities in China**

##### **3.1.1. The Comprehensive Quality of College PE Teachers Needs to be Further Improved**

The core of school PE is the PE teacher. The overall quality of PE teachers is the key factor to ensure the implementation of PE curriculum and the development and improvement of students' physique. With the development of modern society, the physical education teachers need to have the ability and quality has changed, the modern physical education teachers not only have special sports skills, but also have a cognitive and innovative ability of all-round talents. Physical education teachers not only need to learn physical education and technical skills, but also need to be a guide for students to grow and guide their healthy development.

##### **3.1.2. The Teaching of Physical Education Course Neglects the Cultivation of Students' Physical Awareness**

On the traditional college physical education teaching mode, most teachers are restricted by the curriculum objectives and environment, so there are no methods and tools to cultivate students' physical ability. Although the school implemented the elective model, it emphasized the integrity of the classroom, ignoring the development of students' personality and the physical health of other students. Emphasize the "education" function of physical education, ignore the "consciousness" function of physical education, pay attention to the training of basic knowledge, basic skills and students' sports skills, and ignore the students' sports consciousness.

##### **3.1.3. Problems Exist in PE Curriculum Evaluation**

Modern teaching is a knowledge learning system with goals and methods. Assessment is a closed link with the entire teaching system. Since the introduction of physical education curriculum in colleges and universities, although the curriculum evaluation of physical education curriculum has made progress, but in the daily education work, teachers in the evaluation theory and evaluation theory there is a certain ambiguity. Therefore, the existence of college students' physical education skills evaluation is not an objective factor of physical education teaching, nor is it the only way to cultivate and improve students' physical education skills.

#### **3.2. The Negative Influence of Social Education on the Physical Ability of College Students**

##### **3.2.1. Insufficient Popularization of Physical Activities**

Social sports activities can also be called mass sports, national sports and amateur sports. Some developed countries believe that the popularity of social sports activities is a sign of social civilization. However, the popularity of social sports activities in China remains low. According to relevant data, according to age characteristics, the penetration rate of American youth groups participating in physical exercise is 90 percent, while the penetration rate in China is only 41.1 percent. There is a gap between the popularization of social sports activities and the developed countries, and the imperfect sports culture of citizens has a certain relationship with the social sports system.

##### **3.2.2. Colleges and Universities Pay Insufficient Attention to Physical Education**

There are some problems in the social education of college physical education consciousness. In theory, physical education is an important part of school education, but in fact, in the intrinsic concept of society, physical education does not figure prominently, and many colleges do not pay much attention to physical education. In daily life, they only use the sports performance standard as

the learning target, which limits the development of students' athletic ability, and students' athletic ability is not fully displayed.

### **3.2.3. Lack of Sports Facilities and Facilities**

Good sports facilities and equipment are the necessary material guarantee for the students to achieve the goal of sports and develop the sports skills of college students. In some schools, due to the lack of training places, many students miss the opportunity to improve their physical fitness. They can only exercise once or twice a week through physical education classes. Therefore, the factors of sports facilities also have a certain impact on the physical quality of students. This requires the state to increase the investment in the construction of sports facilities. At the same time of strengthening the construction of school physical education, it is imperative to strengthen large-scale physical education.

## **4. Measures to Improve Students' Physical Ability by Using Psychology**

### **4.1. Arouse Students' Learning Enthusiasm and Stimulate Their Interest in Learning**

The generation of learning interest is the motive force of students' spontaneous learning and the important condition for students to master knowledge and skills. The important way to improve the teaching quality and effect is to stimulate the students' interest in learning, so that the students have the desire to learn, and the reasonable use of sports psychology can achieve this purpose, and for the whole teaching process to lay a good foundation. In the process of physical education teaching, teachers should first make clear the students' learning purpose, let the students realize that physical education is very important, correct their learning attitude, improve their learning enthusiasm, so that they consciously carry out physical education learning.

### **4.2. Reduce Students' Negative Emotions in the Learning Process**

Usually, students tend to have negative emotions such as fear, helplessness, impatience and so on in the process of sports learning. If such negative emotions occur, students will be unable to build full confidence because of this emotion, and will not be able to play the normal sports physical level without confidence. In such a situation, students' physical and psychological states will have adverse changes, which will affect the teaching effect. In such cases, the teacher wants to take a certain way, find the reasons of the bad emotions and to psychology in the students' psychological intervention, to dredge the cause of these problems and encourage students to continue efforts to complete the action, unceasing summary, familiar, learn to master each action point, learn to control your emotions, and establish confidence, is a state of their own learning process gradually play a better.

### **4.3. Improve Students' Attention and Improve the Teaching Effect**

In the physical education teaching, the key to a good physical education class is whether the teacher can attract and concentrate the students' attention. Teachers can focus students' attention on classroom teaching through brief and flexible questions and answers, novel and interesting exercises, flexible and changeable formation drills and other ways. For example, a concerned eye or a humorous word can refocus students' attention, so that teachers can better carry out teaching activities. Teachers should be good at using this relaxed and pleasant method and way in physical education teaching to improve students' attention, complete the teaching requirements and achieve good teaching.

### **4.4. Master Students' Exercise Load to Maintain Physical and Mental Health**

Students in the basic part of the exercise, there is a certain amount of exercise load imposed on the body, which not only makes the muscles in a state of tension, but also makes the central nervous system in a highly excited state. At the end of the course, relaxation exercises must be carried out to relieve muscle fatigue, such as walking around the playground twice and doing simple dance movements, so that the students' body gradually recover. These dances are beautiful, so that the

excitement of the cerebral cortex is transferred and the excitement of the central nervous system is controlled. This makes the tense muscle relaxes, the nervous system excited point gets the transfer, thus makes the student's body quickly recovers, also gets the psychological calming down. This is not only a place that PE teaching is different from the basic subjects, but also should be regarded as the teaching focus of PE teachers.

#### **4.5. Point Out the Shortcomings of Students and Promote Their Learning**

In teaching, the teacher should do well in teaching, use of praise, criticism, informed course content, students' information feedback in time, learning attitude, master the skills of students in the classroom situation, teachers should give the corresponding evaluation, help students understand their learning situation, easy to adjust learning conditions, after the student has been clear about the after-school practice key, to the next lesson content briefly tell students, so that the students can combine the content of the class and lower class, is advantageous for the development of the next class.

In physical education, physical psychology plays a vital role. Teachers should understand students' personality characteristics, grasp their psychological activity rules, help them master skills, improve sports ability: the scientific nature, firmness and reliability of physical education depends on physical education psychological research guarantee. At present, there are still many deficiencies in the study of sports psychology in our country. Therefore, we should speed up the construction of psychology system in our country, construct a brand-new teaching model, guide the good development of physical education, and give play to the value of sports psychology.

### **5. Conclusion**

To sum up, in the physical education, physical psychology plays a vital role. Teachers should understand students' personality characteristics, grasp their psychological activity rules, help them master skills, improve sports ability: the scientific nature, firmness and reliability of physical education depends on physical education psychological research guarantee. At present, there are still many deficiencies in the study of sports psychology in our country. Therefore, we should speed up the construction of psychology system in our country, construct a brand-new teaching model, guide the good development of physical education, and give play to the value of sports psychology.

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