

Practice and Exploration of Strengthening Physical Training from the Perspective of Sports Ability

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ABSTRACT

In the physical education teaching of private undergraduate universities, strengthening students' physical training from the perspective of sports ability development is of great significance for cultivating applied talents. To improve the physical fitness of college students, the country and universities attach great importance to it and take active actions. In 2024, the Ministry of Education will fully implement the student physical fitness plan. By creating a strong campus sports culture and creating campus brand activities, we guide college students to step out of their dormitories, onto the playground, and actively exercise. This article explores innovative strategies such as layered teaching, gamified training, and information-based monitoring based on the principles of differentiation, gradual progress, and fun. It constructs a "1+X" curriculum system and implements a dual mentor system for guidance, aiming to provide a practical and feasible path for the personalized physical development of students in private universities.

KEYWORDS

College students; Athletic ability; Physical training; Practice

1 Introduction

With the vigorous development of private higher education, cultivating applied talents with solid professional skills and good physical and mental qualities has become an important mission of private undergraduate universities. Sports, as a fundamental discipline for talent cultivation in universities, plays an irreplaceable role in improving students' physical fitness and enhancing their physical fitness. However, the current physical condition of students in private colleges and universities is not optimistic, with a low compliance rate in entrance physical examinations and uneven levels of athletic ability. How to focus on individual differences among students, enhance physical fitness training, and teach students according to their aptitude, centered around the core goal of improving athletic ability, has become an urgent practical problem that needs to be solved.

2 Design principles for enhancing physical fitness training from the perspective of athletic ability

2.1 Differentiation principle

There are significant differences in the physical fitness foundation among students in private universities, so the principle of differentiated instruction should be adhered to in physical training. Students can be divided into three levels based on their entrance physical examination scores: excellent, good, and passing, and implement tiered teaching. Emphasize the strengthening of specialized sports abilities for outstanding students; Balancing the improvement of basic physical fitness and specialized skill training for excellent students; For students with poor foundations, emphasis is placed on addressing their physical weaknesses. In addition, targeted training content should be set according to the professional needs of different majors, such as strengthening the waist and back strength training of nursing students, adding cervical health exercises for computer majors, etc., to comprehensively improve students' professional physical fitness.

2.2 Progressive principle

Physical training should conform to the laws of human functional adaptation and follow the principle of gradual progression from low to high and from easy to difficult. Divide the training cycle into three stages: adaptation period, improvement period, and reinforcement period, and gradually increase the intensity and amount of exercise. The adaptation period is mainly characterized by low intensity and high capacity, focusing on the chronic adaptation of various systems in the body; Moderate intensity during the promotion period, focusing on comprehensive improvement of basic physical fitness; The intensity of the strengthening period gradually increases, focusing on the improvement of specialized physical fitness and sports skills. At the same time, it is necessary to reasonably control the exercise load, strictly adhere to the principle of recovery, avoid sports injuries, and achieve a virtuous cycle of physical fitness.

improvement and body balance.

2.3 Principle of interestingness

If physical training is carried out in a dull and boring way for a long time, it is easy for students to develop a sense of boredom. Therefore, teachers should strive to innovate training methods and incorporate more fun elements into physical training to enhance students' enthusiasm for participation. Training programs can be gamified, such as combining running training with orienteering, combining strength training with fun challenges, etc., to stimulate students' competitiveness and participation. At the same time, it is necessary to use music, multimedia and other means reasonably to enhance the training atmosphere, carefully design training scenarios, and improve students' physical fitness through education and entertainment, so that students can make progress in happiness.

3 Practical strategies and innovative paths for strengthening physical fitness training from the perspective of sports ability

3.1 Innovate the curriculum module system and construct a personalized development path

Currently, sports are developing towards scientific, universal, and lifelong direction. The scientificization of sports is one of the key areas vigorously promoted by the country in the fields of sports and education. Strengthening the theoretical research of physical education and applying it to curriculum teaching practice is an important guarantee for the high-quality development of physical education and health courses. The practical strategies for strengthening physical fitness training from the perspective of athletic ability should be based on innovative curriculum module systems and the construction of personalized development paths. The physical education curriculum should break through the traditional "big pot" model, develop a hierarchical and rich content elective course group for students with different physical fitness foundations and sports interests, and form a "basic+specialized" course module structure. Basic physical fitness courses should benchmark against the national standards for student physical fitness and health, comprehensively improving students' physical fitness; Specialized physical fitness courses should closely integrate students' sports needs and individual characteristics, offering different types of training programs such as track and field, ball games, martial arts, dance, etc., providing students with diverse choices to meet their differentiated and personalized development requirements, guiding students to find the right direction in physical fitness training, tap into their sports potential, and enhance their specialized sports abilities.

In the process of constructing an innovative curriculum system, physical training elective courses with school characteristics can be developed based on the characteristics of students in different grades and majors. If we offer basic physical training courses for freshmen, through fun physical games and team competitions, we can not only improve their physical fitness but also enhance their collective consciousness and cooperation spirit; Offering specialized basic training courses for sophomore students, guiding them to choose specialized directions based on their own characteristics, and laying a solid foundation in specialized areas; Offering specialized intensive training courses for junior college students, hiring professional coaches or outstanding alumni to provide practical and personalized guidance, and focusing on improving students' specialized sports skills; Offering sports competition training courses for senior students, forming high-level sports teams, strengthening specialized training, and preparing for various levels and types of sports events. At the same time, actively developing general elective courses in sports, such as sports dance, yoga, combat gymnastics, etc., to enhance students' sports cultural literacy. In addition, targeted physical training programs are developed to meet the career needs of students from different majors, such as offering physical training and ballet foundation training for dance majors, and body control and vocal training for drama majors, to closely integrate physical training with professional learning and promote students' professional physical development.

In short, innovating the module system of physical fitness training courses should start from the actual needs and individual characteristics of students, comprehensively plan and highlight key points; We need to not only solidify the foundation, but also strengthen the special projects; We need to face everyone and implement precise policies. Only by teaching students according to their aptitude, providing classified guidance, and accurately matching the development needs of different student groups, can we maximize the enthusiasm and initiative of students to participate in physical training, help every student find a suitable development path in physical training, and establish sports confidence.

3.2 Integrating smart sports technology to achieve precise training monitoring

Strengthening physical training from the perspective of athletic ability requires keeping up with the development trend of smart sports, fully utilizing modern information technology, and achieving dynamic monitoring and precise management of the entire physical training process. Through the deep integration and application of wearable devices,

the Internet of Things, cloud computing, big data and other technologies, an intelligent physical fitness training and monitoring platform is constructed to collect real-time physiological, psychological and other multi-source heterogeneous data of students during training. Through intelligent algorithm analysis and modeling, intuitive and understandable physical fitness reports are generated, and personalized physical fitness improvement plans are provided based on individual differences of students. This not only improves the pertinence and scientificity of training, but also comprehensively enhances the effectiveness of physical fitness training.

In the physical training practice empowered by smart sports technology, students can wear wearable devices such as smart bracelets and heart rate bands to participate in training. Through built-in sensors, students' physiological data such as heart rate, exercise volume, and calorie consumption are recorded in real time and seamlessly transmitted to the physical monitoring platform.

The platform utilizes IoT technology to integrate data from different training venues and equipment, and processes and analyzes it through cloud computing and machine learning algorithms to form individual physical fitness profiles for students. Teachers can view students' training data in real time through mobile devices, grasp their physical fitness status and progress, adjust training plans at any time based on the platform's intelligent training suggestions, and optimize training effectiveness. For example, by analyzing students' heart rate variability data, it is possible to comprehensively evaluate their physical function and fatigue level, and warn of the risk of overtraining; By comparing the strength, speed, and other specialized data of different projects, it can intuitively reflect students' shortcomings in sports ability and strengthen weak links in a targeted manner. Students can also use the terminal app to access individual physical fitness reports at any time, understand their strengths and weaknesses, and develop personalized physical fitness improvement goals.

3.3 Extend extracurricular exercise mechanisms and cultivate lifelong exercise habits

From the perspective of athletic ability, strengthening physical training through in class physical education alone is far from enough. It is necessary to extend and expand beyond the classroom, closely integrate with students' daily lives, make physical exercise a part of students' habits, and achieve the normalization and sustainable development of physical training. Schools should establish the concept of "big sports", promote physical training from the classroom to the playground, extend from the campus to the community, and fully penetrate into students' learning and life. Through a variety of extracurricular sports activities, students' physical fitness and health levels are gradually improved, helping them develop the habit of consciously participating in physical exercise.

Schools can also establish three-dimensional energy clubs and organize themed club activities such as "weekend physical training camps" to provide students with a platform for communication, exchange, and mutual progress. In addition, we should make full use of new media technology, set up columns on school websites, WeChat official account, campus apps and other platforms, regularly push physical training tips and sports skills, and popularize health knowledge; And set up interactive activities such as check-in and sports score leaderboard, through online and offline linkage, to stimulate students' enthusiasm for sports and cultivate their consciousness and initiative in participating in physical exercise.

Strengthening physical training and enhancing students' athletic abilities require schools to play a leading role, integrate multiple resources, involve all staff throughout the entire process, and form a joint force of education that integrates in class and out of class activities, as well as on campus and off campus linkage, truly implementing physical training in a detailed and practical manner. Only by integrating physical training into students' daily lives and incorporating every aspect of their growth can we fully mobilize their intrinsic motivation, help them develop a conscious awareness and action of physical exercise, and treat it as a pleasure, a pursuit, and a way of life. This will shape a lifelong healthy body and lay the foundation for students' comprehensive development.

4 Conclusion

In summary, private undergraduate universities should focus on the development of students' athletic abilities when conducting physical education teaching, follow the principles of differentiation, gradual progress, and fun, and innovate physical training models.

By constructing a hierarchical curriculum system, integrating information-based training methods, optimizing the integration of in class and out of class exercise mechanisms, and establishing a dual mentor guidance system both on and off campus, personalized physical fitness improvement paths are built for students, thereby comprehensively promoting the development of their athletic abilities.

Strengthening physical training requires schools to play a leading role, integrate multiple resources, involve all staff throughout the entire process, and form a joint force of education that integrates in class and out of class activities, as well

as in school and out of school linkage. This will enable physical training to be detailed, practical, and integrated into students' growth, helping them establish lifelong sports awareness, consciously cultivate exercise habits, shape a healthy personality and physique, and lay a foundation for students' comprehensive and lifelong development.

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