Research on the Path of Promoting the Intellectual Development of College Students Through Physical Education and Sports Based on the Five Educational Philosophies

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Abstract

The path to promote the intellectual development of college students is proposed: changing the concept of education, strengthening the integration of physical education and intellectual development, optimizing the curriculum, increasing the proportion of physical education courses, enhancing the construction of teachers, improving the physical education quality and teaching ability of teachers, innovating teaching methods and means, increasing student interest and participation, improving the evaluation system, scientifically evaluating physical education achievements and the comprehensive quality of students, and fostering a positive sports culture to boost students' enthusiasm for sports. It is also essential to cultivate a positive campus sports culture, boost students' passion for sports and their sense of participation, enhance international exchanges and cooperation, and draw lessons from successful sports education practices abroad. These efforts will actively drive the reform and innovation of physical education teaching, offer students increased opportunities to engage in sports, and support their holistic development and future career advancement.

Keywords

Five education, physical education and sports, intellectual enhancement, enhancement paths

1. Introduction

Under the educational concept of "five simultaneous education", sports have a significant impact on the enhancement path of college students' intellectual education. The five education concepts cover the comprehensive development of morality, intelligence, physical fitness, aesthetics, and labour, among which sports, as a key link, have a positive impact on the physical and mental health of college students, their cognitive ability, innovative thinking, and social skills. Colleges and universities should fully understand the key role of sports in comprehensive development education, actively promote the reform and innovation of physical education teaching, and provide more opportunities for college students to participate in physical education and sports, so as to help students achieve comprehensive development and future professional growth (Chen Yu & Yang Jiaxiang, 2023).
2. The significance of promoting the intellectual development of college students through sports based on the "five education" approach

2.1 Sports help to improve the intellectual level of college students

Sports is a kind of physical activity, which requires students to use strategies, skills, thinking, and other ways to solve problems. This combination of physical and intellectual activities helps to improve the intellectual level of college students. Through sports, students need to react quickly and adapt to their environment quickly, which helps to improve their reaction and decision-making abilities. In addition, sports promote the growth of neurons in the cerebral cortex and increase the connections between neurons, thus improving the cognitive ability of the brain.

2.2 Sports help develop college students' non-cognitive abilities

Non-cognitive ability refers to the ability necessary for people to complete specific tasks, such as attention, willpower, self-control and so on. Sports have a positive impact on the enhancement of non-cognitive abilities. Through sports, students need to learn to control their emotions and behaviours, and stay focused and patient, which helps to improve their non-cognitive abilities. In addition, sports can also develop students' teamwork and leadership skills, which are very important for future career development.

2.3 Physical education and sports help enhance the social adaptability of university students

As a kind of social activity, sports can help enhance the social adaptability of college students. Through sports, students need to cooperate, communicate, and coordinate with others, which helps to improve their social skills and interpersonal abilities. In addition, sports can help students understand and practice social norms and values so that they can better adapt to the social environment.

2.4 Sports help promote the mental health of college students

Sports not only help physical health but also psychological health. Through sports, students can release pressure, relieve anxiety, and enhance self-confidence and self-esteem. In addition, sports can also cultivate students' spirit of perseverance and teamwork, all of which can help promote the mental health of college students (Qiao Guifen et al., 2023).

2.5 Sports can help cultivate college students' awareness of rules and the spirit of fair competition

As a kind of rule-based activity, sports can help cultivate college students' awareness of rules and the spirit of fair competition. In sports, students need to abide by the rules, respect the referee, and respect their opponents, which helps to cultivate their sense of rules and moral quality. At the same time, the spirit of fair play in sports can also help students understand and practice moral values, thus further improving their moral standards.

3. The basis for promoting the intellectual development of college students through sports based on the "five sports" approach

3.1 Physiological basis

Sports have an important impact on the physiological basis of the brain. Firstly, sports can promote blood circulation and increase the blood supply to the brain, thus providing more nutrients and oxygen and helping the growth and connection of neurons in the brain. Secondly, sports can promote the growth of neurons and the connection of synapses, thus increasing the number of neurons in the cerebral cortex and the complexity of the neural network, and improving the cognitive ability and information processing ability of the brain.

3.2 Psychological foundation basis

Sports also have a positive impact on the psychological state and emotions of college students. Through sports, students can release pressure and relieve negative emotions such as anxiety and depression, thus improving their psychological adaptability and mental health. In addition, sports can also improve students' self-confidence and self-esteem, enhance their mental toughness, and help them maintain a positive mindset in the face of setbacks and difficulties.
3.3 Pedagogical Basis

As an educational activity, sports have a positive impact on the intellectual improvement of college students. Through sports, students can learn many skills and knowledge related to cognitive ability and academic achievement. For example, physical education and sports can improve students' cognitive abilities such as attention, observation, memory, thinking, and creativity, which are important for students’ learning and future career development. In addition, physical education and sports can also develop non-cognitive abilities such as teamwork, leadership, rule awareness and fair play, which also have a positive impact on students' social adaptation and career development.

3.4 Basis of Sociological Foundation

As a social activity, sports also have a positive impact on college students' social adaptability. Through sports, students can co-operate, communicate, and coordinate with others and improve their social skills and interpersonal skills. In addition, sports can help students understand and practise social norms and values so that they can better adapt to the social environment. These sociological gains can further contribute to the intellectual enhancement of college students (Jin Zhiyuan, Song Yidan, & Tian Yu, 2023).

3.5 Neuroscientific basis

Sports also have an important impact on the neuroscientific basis of the brain. Studies have shown that sports can promote the growth and connection of neurons in the brain, including those in areas such as the hippocampus (closely related to memory and learning) and the neocortex (closely related to cognition and thinking). These neuroscientific gains can improve the cognitive and learning abilities of college students (Tao Enhai & Cheng Chuanyin, 2022).

4. Opportunities for promoting the intellectual development of university students through sports based on the "five sports" approach

4.1 The close connection between sports and intellectual development

Sports are closely related to intellectual development. By participating in sports, college students can exercise their bodies and brains, improve their physical coordination and reaction ability, and at the same time help to develop their intellectual level. Sport is a complex, integrated activity that requires students to use multiple senses and cognitive abilities to master motor skills, rules, and strategies. This integrated activity promotes neuronal growth and connections in the cerebral cortex, increasing the complexity of neural networks and information processing. Therefore, through sports, college students are able to exercise their cognitive abilities such as attention, memory, mental agility, and logical reasoning.

4.2 The diversity of sports promotes intellectual development

The diversity of sports provides a broad space for college students to improve their intellectual development. Different types of sports require students to use different cognitive abilities and skills, for example, team sports such as football and basketball require students to have good coordination and a sense of cooperation, while individual sports such as athletics and swimming pay more attention to students' personal skills and self-management ability. These different types of sports can stimulate college students' different cognitive potentials and ways of thinking, thus promoting the overall improvement of intellectual levels.

4.3 Challenges and coping strategies in sports promote intellectual development

Sports are full of challenges and uncertainties, and students need to make decisions and coping strategies in an ever-changing environment. Such challenges and coping strategies can stimulate college students' creativity and innovative thinking and develop their problem-solving abilities. In sports, students need to learn to observe, analyse, judge, and adapt their strategies, a process that promotes cognitive and problem-solving skills in academic learning and other areas.

4.4 Social interaction in sports promotes intellectual development

As a social activity, sports can promote social interaction and cooperation among college students. In team sports, students need to learn to cooperate, communicate, and manage the team with others, and this social interaction can develop non-cognitive abilities such as teamwork, communication, and leadership. These non-cognitive abilities are very important in academic learning and future career development, which can help students better adapt to the social environment and
cope with challenges. Through social interaction, college students are also able to expand their interpersonal network, accumulate social resources and social capital, and lay a solid foundation for future development.

4.5 **Optimisation of brain neural network by sports promotes intellectual development**

Sports have a positive impact on the optimisation of the brain's neural network. Participating in sports can promote the growth and connection of neurons in the brain, and improve the brain's information processing ability and cognitive ability. This optimisation of the neural network not only improves the cognitive abilities of college students, such as attention and memory, but also enhances their creativity and innovation, and fosters a more flexible and open mindset. This kind of neural network optimisation is of great significance to the development of college students in academic learning and other fields.

4.6 **The association between health promotion and intellectual development in physical education and sports**

There is also a close connection between the health promotion of sports and intellectual development. Through participation in sports, university students can exercise, strengthen their bodies, improve their physical functions and immunity, so that they can better cope with the pressures and challenges of study and life. Physical health also plays an important role in promoting intellectual development. A healthy body can provide sufficient energy and nutrients, and provide a good environment for the growth and connection of neurons in the brain. Therefore, promoting physical health through sports can help college students' intellectual enhancement and development.

5. **Path of promoting the intellectual education of college students based on the "five education" of physical education and sports**

5.1 **Change the concept of education and strengthen the integration of physical education and intellectual education**

Colleges and universities should change the traditional concept of education, fully understand the importance of sports in the overall development of education, strengthen the integration of sports and intellectual education, and take sports as an important platform for comprehensive quality education of college students. At the same time, the educational concept of "health first" should be established, and physical education and health should be taken as one of the important goals for the cultivation of college students, so as to promote the mutual penetration and integration of physical education and intellectual education.

5.2 **Optimise the curriculum and increase the proportion of physical education courses**

Colleges and universities should optimise the curriculum, increase the proportion of physical education courses, and provide students with more opportunities and time for sports. In the curriculum, it should pay attention to the combination of physical education and intellectual education, incorporate physical education and sports into the professional curriculum, and realise the organic integration of physical education and professional courses. At the same time, diversified sports courses should be offered to meet the interests and needs of different students and stimulate their interest and enthusiasm in participating in sports.

5.3 **Strengthen the construction of teachers and improve teachers' physical education and teaching ability**

Colleges and universities should strengthen the construction of teachers, improve teachers' sports literacy and teaching ability, and cultivate a team of physical education teachers with professional literacy and strong teaching ability. Teachers should have a solid foundation of sports theory and professional skills, and be able to scientifically guide students to play sports and improve their sports skills and physical fitness. At the same time, teachers should pay attention to their own continuous learning and improvement, actively participate in various training and learning activities, and improve their professionalism and teaching ability (Zhu Lei & Yang Wei, 2022).

5.4 **Innovative teaching methods and means to improve students' interest and participation in learning**

Colleges and universities should innovate teaching methods and means, and adopt diversified teaching methods and approaches to improve students' learning interest and participation. For example, it can adopt a variety of teaching methods
such as contextual teaching, case study teaching, inquiry-based teaching and so on to guide students to actively participate in sports and improve their learning effect. At the same time, modern information technology means, such as multimedia technology, network technology and so on, should be actively introduced to enrich the teaching means and content and improve students' learning interest and participation.

5.5 Improve the evaluation system and scientifically evaluate students' sports performance and comprehensive quality

Colleges and universities should improve the evaluation system, scientifically evaluate students' sports achievements and comprehensive quality, and provide students with comprehensive and objective evaluation reports. In the evaluation system, it should focus on the overall development of students, treat sports achievements and academic achievements equally, and establish a diversified evaluation index system. At the same time, a variety of evaluation methods and approaches should be used, such as self-evaluation, mutual evaluation, and practical evaluation, to fully understand students' learning and comprehensive quality.

5.6 Create a good campus sports culture atmosphere to stimulate students' enthusiasm for sports and awareness of participation

Colleges and universities should create a good campus sports culture to stimulate students' enthusiasm and participation. For example, various sports competitions and activities can be held to encourage students to actively participate in them and cultivate their teamwork and competitive awareness. At the same time, sports knowledge lectures, sports culture festivals and other diversified activities can be carried out to enrich students' after-school lives and improve their knowledge and understanding of sports.

5.7 Strengthen international exchange and cooperation, and learn from advanced foreign experience in physical education

Colleges and universities should strengthen international exchanges and cooperation, learn from advanced foreign experience and methods of physical education, and improve their own physical education level. They can carry out cooperation and exchange activities in the field of physical education with foreign colleges and universities, send students to each other, learn from each other, and develop together. At the same time, we can also introduce foreign advanced physical education concepts and teaching methods such as American general education to inject new vitality into the cause of physical education in China.

6. Conclusion

Based on the perspective of "five education", physical education has a far-reaching impact on the path of college students' intellectual development. Colleges and universities should prioritize the role of physical education in comprehensive development education. They should actively promote the reform and innovation of physical education teaching and offer students more opportunities to engage in physical education and sports. This will assist students in achieving holistic development and future professional growth.

References


