

Research on the Optimization Path of Track and Field Teaching Strategies under the Guidance of Core Literacy

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Abstract: *Against the backdrop of continuous education reform and the emphasis on cultivating core competencies, track and field teaching, as an important component of physical education, plays a crucial role in optimizing teaching strategies to enhance students' core competencies. This study focuses on the optimization path of track and field teaching strategies under the guidance of core competencies, aiming to provide theoretical support and practical guidance for improving the quality of track and field teaching and promoting students' comprehensive development. Firstly, by reviewing the current research status at home and abroad, the shortcomings of current research on track and field teaching strategies are identified, and the starting point of this study is determined. Next, we will delve into the theoretical foundation of core competencies and track and field teaching, elaborating on the connotation and composition of core competencies, as well as the goals and characteristics of track and field teaching, and exploring the intrinsic relationship between the two. By using methods such as questionnaire surveys, this study analyzes the current situation of track and field teaching under the guidance of core literacy, and identifies problems in teaching implementation, the manifestation of core literacy cultivation, and the influencing factors of teaching strategy implementation. Based on this, an optimization path is proposed from four dimensions: teaching objectives, teaching content, teaching methods and means, and teaching evaluation. In terms of teaching objectives, follow the principles of scientificity, optimize different dimensions of objectives, and effectively connect them with curriculum standards; In terms of teaching content, select, transform, and innovate content based on principles such as interest, and achieve deep integration with core competencies; In terms of teaching methods and tools, diversified teaching methods should be used, modern teaching tools should be introduced, and innovative practices should be encouraged. This study emphasizes the importance and effectiveness of optimizing track and field teaching strategies under the guidance of core competencies. Through the implementation of a series of optimization paths, it is expected to improve the pertinence and effectiveness of track and field teaching, better cultivate students' core competencies such as sports ability, healthy behavior, and sports ethics, and contribute to the reform of physical education and the comprehensive development of students.*

Keywords: Core competencies; Track and field teaching; Athletic ability; Healthy behavior; Sports ethics.

1. INTRODUCTION

In the current wave of educational reform, the cultivation of core competencies has become a core issue in the field of education. Core literacy not only reflects the new requirements for talent cultivation in the new era, but also serves as an important cornerstone for students to adapt to future society and achieve comprehensive personal development. Physical education, as an indispensable part of the school education system, plays a unique and irreplaceable role in cultivating students' core competencies. As a fundamental project of physical education, athletics has multiple characteristics such as competitiveness, fitness, and education, and contains rich educational value. It has significant significance in improving students' physical fitness, willpower, and teamwork ability.

2. ANALYSIS OF THE CURRENT SITUATION OF TRACK AND FIELD TEACHING UNDER THE GUIDANCE OF CORE LITERACY

2.1 Investigation on the Implementation of Track and Field Teaching

To comprehensively understand the implementation status of track and field teaching under the guidance of core literacy, we designed a detailed survey questionnaire and conducted in-depth research on track and field teaching in multiple schools. The survey results show that although most schools have included athletics in their physical education curriculum, the arrangement of class hours is relatively limited, making it difficult to meet the needs of students for systematic learning of athletics knowledge and skills. In terms of teaching content, traditional events such as sprinting and long jump still dominate, while emerging track and field events and interesting content are not fully integrated, resulting in a single teaching content that is difficult to stimulate students' interest in learning.

In terms of teaching methods, some teachers still rely mainly on traditional explanations, demonstrations, and repetitive exercises, lacking innovation and diversity, and unable to fully mobilize students' enthusiasm and initiative. In addition, there are certain problems with the allocation of teaching venues and equipment. Some schools have outdated track and field facilities and a shortage of equipment, which affects the normal development and quality of teaching.

2.2 Reflection of Core Literacy Cultivation in Track and Field Teaching

In terms of cultivating core competencies, although track and field teaching has shown some progress, there are still significant shortcomings. In terms of cultivating athletic abilities, teachers place more emphasis on imparting skills, while neglecting the comprehensive improvement of students' physical fitness and athletic performance, resulting in a lack of flexibility and adaptability for students in practical application. In terms of cultivating healthy behaviors, there is insufficient guidance on exercise safety, health knowledge, and good exercise habits in teaching, and students lack awareness of self-protection and health management. In terms of cultivating sports ethics, although athletics itself has the advantages of cultivating teamwork spirit, competitiveness, and resilience, teachers have not fully explored and utilized these elements in the teaching process, resulting in a lack of systematic and targeted moral education for students, and the cultivation of appropriate moral character has become a mere formality.

2.3 Factors affecting the implementation of track and field teaching strategies

There are multiple factors that affect the implementation of track and field teaching strategies. Teacher factors are crucial, as some teachers have outdated teaching philosophies, insufficient understanding of core competencies, and lack the ability to innovate teaching methods and tools, making it difficult to effectively implement teaching strategies. The student factor cannot be ignored, as there are significant individual differences among students, including physical fitness, interests, and learning attitudes, which pose certain difficulties for the unified implementation of teaching strategies. In addition, insufficient teaching resources are also important influencing factors, such as the lack of teaching venues and equipment, as well as limitations in teaching funds, which restrict the optimization and innovation of teaching strategies. At the same time, schools do not attach enough importance to track and field teaching, and lack effective management and evaluation mechanisms, which to some extent affects the implementation effectiveness of teaching strategies.

3. OPTIMIZATION OF TRACK AND FIELD TEACHING OBJECTIVES UNDER THE GUIDANCE OF CORE LITERACY

3.1 Principles for Setting Track and Field Teaching Objectives Based on Core Competencies

Setting track and field teaching objectives under the guidance of core competencies should follow the principles of scientificity, comprehensiveness, pertinence, and operability. The principle of scientificity requires that goal setting should conform to the laws of track and field sports and the characteristics of students' physical and mental development, based on professional knowledge and educational theories in the field of sports, to ensure that goals are reasonable and effective. For example, one cannot blindly pursue high difficulty goals without considering the actual physical fitness and athletic ability of students. The principle of comprehensiveness emphasizes that goals should cover all aspects of core competencies, not only focusing on improving students' track and field skills, but also emphasizing the cultivation of healthy behavior and sports ethics, promoting students' comprehensive development. The principle of targeting means setting specific and clear goals based on the characteristics of students of different age groups and levels, so that every student can gain something from track and field teaching. The principle of operability requires goals to be measurable and achievable, achievable through specific teaching activities, and easy for teachers to evaluate and adjust during the teaching process.

3.2 Optimization of Teaching Objectives in Different Dimensions

In terms of athletic ability goals, specific requirements should be clearly defined to improve students' track and field skills, physical fitness, and athletic performance. Not only should students master the correct track and field techniques, but they should also improve their physical fitness such as speed, strength, and endurance through targeted training, so that they can perform at their best level in different track and field events. In terms of health behavior goals, it is necessary to cultivate students' healthy lifestyle, exercise habits, and self-protection

awareness. For example, teaching students to arrange exercise time and intensity reasonably, master warm-up and relaxation methods before and after exercise, and how to avoid injuries during exercise. The goal of sports ethics needs to shape students' sportsmanship, teamwork spirit, and competitive awareness. Through track and field competitions and training, students learn to abide by rules, respect their opponents, dare to challenge themselves, cultivate perseverance and good sportsmanship.

3.3 Connection between teaching objectives and curriculum standards

The teaching objectives of athletics must be closely aligned with the standards of physical education and health curriculum to ensure the standardization and consistency of teaching. We need to conduct in-depth research on the requirements for track and field teaching in the curriculum standards, and refine the overall and specific objectives in the curriculum standards into various aspects of track and field teaching. For example, the curriculum standards emphasize the cultivation of students' interest and hobbies in sports, and the teaching objectives of athletics can be set to stimulate students' interest in athletics through diverse teaching methods and interesting teaching content. At the same time, teaching objectives should reflect the timeliness and foresight of curriculum standards, and innovate teaching content and methods in combination with the current development trend of physical education and the requirements of core competencies. In the teaching process, we should always be guided by the curriculum standards, constantly adjust and improve teaching objectives, so that track and field teaching can better serve the comprehensive development of students and contribute to the overall goal of physical education.

4. OPTIMIZATION OF TRACK AND FIELD TEACHING CONTENT UNDER THE GUIDANCE OF CORE LITERACY

4.1 Principles for Selecting Track and Field Teaching Content

Under the guidance of core competencies, the selection of track and field teaching content should follow the principles of fun, practicality, systematicity, and timeliness. The principle of fun is crucial. Although athletics itself has competitive charm, traditional teaching can easily make students feel bored. Therefore, it is necessary to choose content that is full of fun and can stimulate students' interest. For example, fun track and field relay races, obstacle running games, etc., allow students to participate in track and field sports in a happy way, and improve their learning enthusiasm. The principle of practicality requires teaching content to be close to students' real-life situations and effectively improve their physical fitness and athletic abilities. Practical exercises such as correcting daily running posture and training jumping skills enable students to truly apply what they have learned to their daily lives. The principle of systematicity emphasizes that teaching content should be logical and hierarchical, gradually advancing from foundation to improvement. For example, first teach the basic movements and essentials of sprinting, then gradually increase the difficulty and intensity for systematic training. The principle of timeliness requires teaching content to keep up with the pace of the times, integrate modern athletics concepts and emerging projects. Introducing popular fitness running, outdoor cross-country running, and other content to make track and field teaching more contemporary.

4.2 Transformation and Innovation of Traditional Teaching Content

The traditional track and field teaching content has some drawbacks and needs to be reformed and innovated. For traditional track and field events, the difficulty can be reduced and the fun can be increased to meet the needs of different students. Taking long-distance running as an example, traditional long-distance running training is monotonous and boring. It can be transformed into campus oriented off-road running, with multiple check-in points set up on campus to allow students to complete check-in tasks within a specified time. This not only increases the fun of the exercise, but also exercises students' sense of direction and teamwork ability. It is also possible to introduce emerging track and field events or expand teaching content to enrich teaching resources. For example, developing emerging projects such as scooter racing and soft javelin throwing can not only attract students' attention, but also cultivate their innovation and adaptability. At the same time, modern technology is utilized to innovate and showcase traditional teaching content, such as analyzing the technical movements of excellent athletes through videos, allowing students to learn more intuitively and improving teaching effectiveness.

4.3 Integration of teaching content and core competencies

The deep integration of teaching content and core competencies is the key to optimizing track and field teaching. In terms of athletic ability, the teaching content should focus on cultivating students' comprehensive athletic abilities, not only improving track and field skills, but also enhancing physical fitness and athletic performance. For example, when teaching long jump, in addition to teaching the correct long jump posture, it is also necessary to arrange strength training, explosive power training, etc., to comprehensively improve students' athletic ability. In terms of cultivating healthy behaviors, teaching content should include knowledge of sports safety, healthy lifestyle habits, and other related topics. For example, explaining sports precautions before each track and field class, teaching students how to prevent sports injuries, and cultivating good exercise habits. In terms of shaping sports ethics, it is necessary to explore the moral education elements in track and field sports, such as cultivating students' teamwork spirit through team relay races, guiding students to abide by rules and respect opponents during competitions, and cultivating students' competitiveness and perseverance. By integrating core competencies into teaching content, track and field teaching not only imparts knowledge and skills, but also promotes students' comprehensive development.

5. OPTIMIZATION OF TEACHING METHODS AND TOOLS FOR TRACK AND FIELD UNDER THE GUIDANCE OF CORE COMPETENCIES

5.1 Application of Diversified Teaching Methods

Under the guidance of core literacy, the application of diversified teaching methods is crucial for improving the effectiveness of track and field teaching. The demonstration method of explanation is the basic method of track and field teaching. Clear and accurate explanations and standardized demonstrations by teachers can help students quickly understand the essentials of movements. For example, when teaching hurdle techniques, teachers explain in detail the steps, rhythm, and force points of hurdles, while conducting standard demonstrations to allow students to intuitively experience the movement form. The practice rules are the key to students mastering skills, consolidating what they have learned through repeated practice. But the practice methods should be diversified, such as group exercises, competition exercises, etc. Group exercises can promote communication and cooperation among students, while competition exercises can stimulate students' competitive awareness and improve their enthusiasm for practice. Game based teaching method can increase the fun of track and field teaching by integrating track and field skills into games, such as relay skipping rope running, obstacle relay races, etc., allowing students to improve their athletic abilities in a relaxed and enjoyable atmosphere. The problem exploration method can cultivate students' thinking ability and self-learning ability. Teachers can raise questions related to athletics, such as "how to improve the reaction speed of short distance running", guide students to explore independently, cooperate and communicate, and find solutions to problems.

5.2 Introduction of modern teaching methods

Introducing modern teaching methods is an inevitable choice for athletics teaching to adapt to the development of the times. Multimedia technology can enrich teaching resources. Teachers can play videos of excellent athletes' competitions, action decomposition videos, etc., allowing students to learn technical movements more intuitively and deepen their understanding of movements. For example, when learning triple jump, playing a slow motion video allows students to clearly see the details of each step. Virtual reality technology can create realistic sports scenes for students, allowing them to conduct track and field training and competitions in a virtual environment, enhancing their immersion and experience in learning. Sports monitoring technology can provide real-time feedback on students' exercise data, such as heart rate, speed, step frequency, etc. Teachers can adjust their teaching plans based on this data to achieve personalized teaching. For example, monitoring students' heart rate changes during running through smart wristbands and arranging exercise intensity reasonably. Online teaching platforms break the limitations of time and space, allowing students to learn and communicate anytime, anywhere. Teachers can publish teaching resources, assign homework, and provide online Q&A, improving teaching efficiency.

5.3 Innovative Practice of Teaching Methods and Means

Encouraging teachers to carry out innovative practices in teaching methods and tools is the key to promoting the development of track and field teaching. The group cooperative learning method is an effective innovative practice that divides students into groups to jointly complete athletics learning tasks, such as planning relay competitions and mutual learning of athletics skills. In group cooperation, students learn to communicate and

collaborate, cultivate team spirit and sense of responsibility. The inquiry based learning method allows students to actively explore track and field knowledge and skills. Teachers ask questions or projects, and students explore through research, experiments, discussions, and other methods. For example, exploring the impact of different starting positions on sprint performance, students can draw conclusions through experiments and data analysis to improve their self-learning ability and innovative thinking. In addition, distinctive track and field teaching courses and activities can be developed based on local cultural characteristics and the actual situation of the school, such as holding campus track and field cultural festivals, conducting outdoor track and field training, etc., to stimulate students' learning interest and creativity, and promote the cultivation of core competencies.

6. CONCLUSION

This study focuses on optimizing track and field teaching strategies under the guidance of core competencies, which has important practical significance. Through current situation analysis, it is found that there are deficiencies in goal setting, content selection, method application, and evaluation implementation in current track and field teaching, which have affected the cultivation of students' core competencies. Based on this, an optimization path is proposed from three dimensions: teaching objectives, content, and methods, emphasizing that goal setting follows scientific principles and is aligned with curriculum standards, content selection focuses on principles and integrates core competencies, and methods and means are diverse and innovative in practice. These optimization strategies help to improve the pertinence and effectiveness of track and field teaching, and better cultivate students' athletic abilities, healthy behaviors, and sportsmanship. In the future, further in-depth research and practice are needed to continuously improve the teaching strategies of track and field, and contribute more to the reform of physical education and the comprehensive development of students.

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Author Profile

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