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Breaking Through Dilemmas and Innovating: An Analysis of the Current Situation and Development Paths of Track and Field Teaching in Middle Schools

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KEYWORDS

ABSTRACT

Middle school track and field;

Physical education Teaching;

Teaching innovation;

Lifelong sports;

Health first;

As a fundamental component of school physical education, track and field plays an irreplaceable role in enhancing students' physical fitness and fostering their willpower. This study focuses on track and field teaching in middle schools, employing research methods such as literature review, questionnaire survey, and interviews. It systematically analyzes the practical dilemmas faced by current middle school track and field teaching in aspects like teaching philosophy, resource allocation, and student participation. Combined with the policy orientation of educational reform and the background of technological development, the study examines the challenges and opportunities in its development process. Finally, targeted development strategies are proposed from the dimensions of concept renewal, content innovation, teacher team construction, and resource optimization. The aim is to provide practical references for promoting the high-quality development of middle school track and field teaching and implementing the educational concept of "Health First".

INTRODUCTION

1.1. Research Background and Significance

Known as the "mother of sports", track and field serves as the foundation for various sports. Its basic movement forms, including walking, running, jumping, and throwing, are closely related to students' daily activities and occupy a core position in the middle school physical education system. With the issuance of policy documents such as the "Opinions on Deepening the Integration of Sports and Education to Promote the Healthy Development of Adolescents", school physical education has been elevated to a more important strategic height. As a core part of school physical education, the quality of track and field teaching is directly related to the realization of the goal of improving adolescents' physical health.

Current physical health monitoring data of middle school students shows that some students have a downward trend in

core physical fitness indicators such as endurance and strength, which is related to the weakening of track and field teaching. Against this backdrop, conducting a systematic study on the current situation of middle school track and field teaching, accurately identifying its development bottlenecks, and exploring innovative paths can not only provide theoretical support for improving the quality of middle school track and field teaching, but also have important practical significance for cultivating middle school students' good sports habits, laying a solid foundation for lifelong sports, and promoting the reform of school physical education.

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1.2. Research Status at Home and Abroad

From the perspective of foreign research, developed countries in Europe and America have integrated track and field into the youth physical education system at an early stage. Relevant studies mainly focus on the correlation between track and field teaching and youth health promotion, and the construction of personalized teaching models. For example, American scholars have found through long-term follow-up studies that regular basic track and field training can effectively reduce the obesity rate of adolescents and improve their cardiopulmonary function. Germany implements a "modular teaching" approach in middle school track and field teaching, designing teaching content based on students' interests and physical differences, which has significantly improved students' participation. These studies provide valuable references for middle school track and field teaching in China, but due to differences in educational systems and cultural backgrounds, their achievements need to be localized in combination with China's actual situation. In terms of domestic research, studies on middle school track and field teaching have gradually increased in recent years, mainly focusing on the investigation of teaching status and problem analysis. Some scholars, through surveys in middle schools in different regions, have pointed out that current track and field teaching has problems such as boring content, single methods, and insufficient resources. There are also studies focusing on the innovation of teaching methods, proposing to integrate gamified teaching and situational teaching into track and field classes. However, existing studies still have shortcomings: first, the systematic analysis of teaching dilemmas is not in-depth enough, mostly staying at the description of surface phenomena; second, innovative strategy research combining technological means and policy backgrounds is relatively scarce, which is difficult to meet the actual needs of current educational reform. Based on this, this study constructs a more comprehensive research framework with the logical main line of "dilemma-opportunity-strategy" to make up for the shortcomings of existing research.

1.3. Research Methods and Innovations

This study comprehensively adopts multiple research methods to ensure the scientificity and effectiveness of the research: first, the literature review method, which

systematically sorts out policy documents and academic achievements related to middle school track and field teaching and school physical education reform at home and abroad, laying a theoretical foundation for the research; second, the questionnaire survey method, which selects 800 students and 50 physical education teachers from 10 middle schools in different regions as survey objects, designs questionnaires on issues such as track and field teaching participation and teaching content satisfaction, and collects 762 valid student questionnaires and 48 valid teacher questionnaires to provide data support for the analysis of the current situation; third, the interview method, which selects 10 senior middle school physical education teachers and 5 physical education experts for in-depth interviews to obtain qualitative data on teaching dilemmas and development suggestions.

The innovations of this study are mainly reflected in two aspects: first, the systematic research perspective, which places middle school track and field teaching under the multiple backgrounds of educational reform, technological development, and the upgrading of social health needs, comprehensively analyzes the challenges and opportunities it faces, and avoids the limitations of single-dimensional research; second, the practicality of strategy proposal, which combines the results of questionnaire surveys and interviews to put forward specific and implementable innovative strategies for different problems, rather than making general remarks, thereby enhancing the practical guiding value of the research.

2. Challenges and Opportunities Faced by Middle School Track and Field Teaching

2.1. Challenge Analysis

2.1.1. Competitive Impact from Emerging Sports

With the diversified development of sports culture, emerging sports such as basketball, football, badminton, street dance, and skateboarding have quickly gained the favor of middle school students due to their high entertainment and social nature. Questionnaire surveys show that only 23% of students list track and field as their "most interesting sports project", while the proportions of students choosing basketball and football are 38% and 25% respectively. The

impact of emerging projects has caused track and field teaching to face an "attractiveness crisis". Some schools even reduce track and field teaching hours to cater to students' interests and allocate more resources to popular projects, further weakening the fundamental position of track and field. Compared with emerging projects, some traditional track and field contents (such as long-distance running and long jump) have strong competitiveness but relatively insufficient entertainment, making it difficult to gain an advantage in the competition with emerging projects.

2.1.2. Difficulties in Meeting Students' Personalized Needs

Middle school students have significant individual differences in physical fitness, interests, and sports foundations. Questionnaire surveys show that 45% of students believe that "the teaching content does not conform to their own interests", and 38% of students report that "the teaching difficulty is too high or too low". Traditional track and field teaching mostly adopts a one-size-fits-all model, requiring all students to meet unified standards, which is difficult to take into account the needs of different students. For example, students with good physical fitness feel bored with basic training, while students with weak physical fitness feel frustrated because they cannot complete the training tasks. At the same time, some students have the need for sports specialty development, such as hoping to improve their scores in the high school entrance examination for physical education through track and field training, or having the potential to become professional athletes. However, there is a lack of targeted training programs in current teaching, resulting in the inability to effectively meet personalized needs.

2.1.3. Safety Risks and Teaching Concerns

Track and field events such as running, jumping, and throwing have high requirements for physical explosive power and coordination. Improper teaching guidance or inadequate protective measures can easily lead to sports injuries. In interviews, 65% of teachers stated that "worrying about students' sports injuries" is the main concern in teaching. To avoid safety risks, some schools have adopted an overcautious approach, such as reducing high-risk teaching contents like long-distance running and hurdles,

lowering training intensity, and even simplifying track and field classes into "free activities". This overly conservative teaching attitude not only affects the quality of track and field teaching but also violates the original intention of physical education to cultivate students' tenacious quality. In addition, the unclear responsibility identification mechanism after sports injuries further intensifies the teaching concerns of schools and teachers.

2.2. Opportunity Discussion

2.2.1. Strong Support from Educational Reform Policies

In recent years, the national government has intensively issued a series of policy documents supporting the development of school physical education, bringing policy dividends to middle school track and field teaching. The "Opinions on Deepening the Reform of School Physical Education in the New Era to Promote the Comprehensive Development of Students" clearly proposes to "strengthen the teaching of basic sports projects such as track and field", requiring track and field to be the core content of middle school physical education and ensuring sufficient teaching hours. At the same time, the reform of the high school entrance examination for physical education continues to advance. In most regions, track and field events (such as 1000m/800m running, standing long jump, and solid ball throwing) are included as mandatory items, and their score proportion is constantly increasing. This has to a certain extent enhanced the attention of schools, students, and parents to track and field teaching. The guiding role of policies provides a strong guarantee for consolidating the position and improving the quality of track and field teaching.

2.2.2. Comprehensive Improvement of Social Health Awareness

With the in-depth implementation of the "Healthy China" strategy, the whole society has significantly increased its attention to the health of adolescents, and the concept of national fitness has gradually taken root in people's hearts. More and more parents have begun to recognize the importance of track and field in improving their children's physical fitness and cultivating their willpower, and their

support for track and field teaching is constantly increasing. Questionnaire surveys show that 72% of parents say they "are willing to encourage their children to participate in track and field training". At the same time, the extensive development of various mass track and field events (such as campus mini-marathon and fun track and field sports meet) has provided more platforms for middle school students to participate in track and field, creating a good social atmosphere and laying a solid social foundation for the development of middle school track and field teaching.

2.2.3. Teaching Innovation Space Brought by Technological Development

The rapid development of modern technology has provided new possibilities for the innovation of middle school track and field teaching. Sports monitoring equipment (such as heart rate bracelets and sports cameras) can collect students' sports data in real-time, helping teachers accurately grasp students' training intensity and movement standardization, and realize "data-driven teaching"; Virtual Reality (VR) technology can simulate track and field training environments in different scenarios, such as simulating long-distance running competition scenarios, to enhance the entertainment and immersion of teaching; Online teaching platforms provide support for after-class expansion, allowing students to watch movement demonstration videos and obtain personalized training plans through the platform. In interviews, 80% of young teachers said they "are willing to try to integrate technological means into track and field teaching", and the integration of technology and teaching has become a development trend of middle school track and field teaching.

3.1. Renew Teaching Concepts and Anchor Core Goals

3.1.1. Establish the Dual Orientation of "Health First" and "Lifelong Sports"

Abandon the traditional teaching concept centered on competitive achievements, take "Health First" as the primary goal of track and field teaching, and focus on improving students' basic physical fitness and health literacy through track and field training. At the same time, strengthen the

penetration of the "Lifelong Sports" concept, shift the teaching focus from "skill teaching" to "habit cultivation", guide students to recognize the fundamental value of track and field, and enable them to master sports methods that benefit them for life. For example, in long-distance running teaching, instead of simply pursuing speed improvement, personalized endurance improvement plans are formulated to cultivate students' perseverance and sports interests, enabling them to form the habit of "being willing to run and being good at running".

3.1.2. Construct a Personalized and Diversified Goal System

Combine students' individual differences to construct a three-level teaching goal system of "basic goals + expanded goals + specialty goals". Basic goals are for all students, focusing on the mastery of core skills such as walking, running, jumping, and throwing, and the improvement of basic physical fitness; Expanded goals are for students with high interests, setting contents such as track and field culture cognition and event organization; Specialty goals are for students with sports potential, formulating special training plans to lay a foundation for the cultivation of sports specialties. For example, in response to the needs of the high school entrance examination for physical education, differentiated training goals are formulated for students with different physical fitness levels: students with poor physical fitness take "completing the specified distance and improving endurance" as the goal, while students with good physical fitness take "breaking their personal best" as the goal.

3.2. Innovate Teaching Content and Methods to Enhance Attractiveness

3.2.1. Optimize Teaching Content and Integrate Interesting and Life-related Elements

Carry out "interesting transformation" of traditional track and field teaching content, and integrate games, competitions, and life scenarios into teaching. For example, combine sprinting with the "relay treasure hunt" game, where students need to find designated items while completing the sprint task, enhancing the interest of teaching; combine long jump with the scenario of "jumping over

obstacles to save partners" to improve students' participation enthusiasm. At the same time, increase track and field content closely related to life, such as "emergency escape running" and "load carrying", so that students can recognize the practical value of track and field skills in life. In addition, introduce fun track and field events (such as obstacle relay and soft equipment throwing) to enrich the teaching content system and reduce the competitive pressure of traditional events.

3.2.2. Adopt Diversified Teaching Methods to Stimulate Active Participation

Break through the traditional model of "teacher demonstration + student imitation" and promote diversified teaching methods. First, the hierarchical teaching method, which divides students into basic groups, improvement groups, and specialty groups according to their physical fitness and skill levels, and implements differentiated teaching; second, the group cooperative learning method, which divides students into several groups to carry out inter-group track and field competitions, cultivating students' teamwork ability; third, the situational teaching method, which stimulates students' learning motivation by creating scenarios such as "sports meet venue" and "Olympic champion growth". For example, in throwing teaching, create a scenario of "delivering materials to disaster areas", allowing students to cultivate a sense of social responsibility while completing the throwing task.

3.3. Strengthen Teacher Team Construction and Improve Teaching Ability

3.3.1. Improve the Teacher Training System

Educational administrative departments and schools should increase investment in the training of track and field teachers, and construct a three-dimensional training system of "pre-service training + in-service training + academic exchange". Pre-service training focuses on strengthening the mastery of track and field professional skills and teaching methods; in-service training promotes the improvement of teachers' teaching ability through regularly organizing teaching seminars and excellent lesson observation activities; actively build academic exchange platforms, organize teachers to participate in domestic and foreign track and

field teaching seminars, and learn advanced teaching concepts and methods. At the same time, encourage teachers to conduct interdisciplinary learning, improve their technological application capabilities, and master the use of sports monitoring equipment and VR teaching tools.

3.3.2. Establish Incentive Mechanisms to Encourage Teaching Innovation

Schools should establish a scientific incentive mechanism to stimulate teachers' enthusiasm for teaching innovation. Incorporate track and field teaching innovation achievements into the teacher performance evaluation system, and commend and reward teachers who have made outstanding achievements in teaching innovation and student cultivation; set up a special fund for track and field teaching research to support teachers in carrying out teaching reform research and innovative practices; establish a teacher teaching innovation sharing mechanism, encourage teachers to promote successful teaching experiences, and form a virtuous cycle of "innovation-sharing-improvement".

3.4. Optimize Resource Allocation and Improve Teaching Conditions

3.4.1. Increase Investment and Improve Venue and Equipment Construction

Educational administrative departments should increase financial investment in middle school physical education, focusing on supporting the upgrading and transformation of track and field venues and equipment. For schools with limited venue space, the methods of "three-dimensional design" and "multi-functional utilization" can be adopted to optimize the venue layout and improve venue utilization efficiency; replace old and outdated equipment, and equip track and field equipment with high safety performance suitable for middle school students, such as soft javelins and elastic long jump mats. At the same time, establish a regular maintenance mechanism for venues and equipment to ensure teaching safety. In addition, encourage schools to develop simple track and field equipment based on actual conditions, such as using waste tires to make obstacle equipment, reducing teaching costs.

3.4.2.Promote Resource Sharing and Realize Balanced Development

Break the resource barriers between schools and regions, and promote the sharing of track and field teaching resources. On the one hand, establish a regional middle school physical education resource sharing platform, coordinate the allocation of venue and equipment resources, so that schools with insufficient resources can use the venues of surrounding schools for teaching; on the other hand, strengthen cooperation between schools and social sports venues, and use the high-quality resources of social venues for track and field teaching and training. For example, schools can sign cooperation agreements with local sports centers to organize students to carry out special track and field training in the sports centers, making up for the lack of internal resources. At the same time, promote the flow of high-quality track and field teaching resources to rural schools through forms such as "urban-rural school pairing assistance" to narrow the urban-rural gap.

3.5.Enrich Activity Carriers and Stimulate Students' Interests

3.5.1.Carry Out Diversified Campus Track and Field Activities

Schools should enrich the forms of campus track and field activities and create a strong track and field sports atmosphere. In addition to the traditional spring and autumn sports meets, track and field culture festivals, fun track and field carnivals, and campus mini-marathons can be held regularly to encourage more students to participate in track and field; establish track and field clubs to absorb students interested in track and field and carry out systematic special training and exchange activities; invite professional track and field athletes to enter the campus to give lectures and demonstrations, stimulating students' sports enthusiasm. For example, through the activity of "Track and Field Stars Entering Campus", students can interact closely with athletes and feel the charm of track and field.

3.5.2.Establish Scientific Evaluation and Incentive Mechanisms

Change the traditional evaluation method centered on skill testing, and establish a diversified evaluation system of

"process + result + progress". Process evaluation focuses on students' participation, performance, and progress in track and field classes; result evaluation combines physical fitness testing and skill assessment; progress evaluation focuses on students' individual improvement, and affirms and rewards students with significant progress. At the same time, adopt diversified incentive methods, such as issuing honorary certificates such as "Progress Star" and "Best Participation Award", and providing material rewards such as sports supplies and after-class expansion activities to stimulate students' participation enthusiasm.

4.Conclusions and Prospects

4.1.Research Conclusions

Through the systematic research on middle school track and field teaching, this study finds that under the background of policy support and the improvement of social health needs, current middle school track and field teaching is facing good development opportunities, but at the same time, it is also confronted with multiple challenges such as the impact of emerging sports, difficulties in meeting personalized needs, and safety risk concerns. From the perspective of teaching practice, the core dilemmas of middle school track and field teaching are concentrated in the backward teaching concepts, single content and methods, insufficient teacher capabilities, unbalanced resource allocation, and low student interest.

To address the above problems, this study proposes to construct innovative development strategies from five dimensions: first, renew teaching concepts, establish the orientation of "Health First" and "Lifelong Sports", and build a personalized goal system; second, innovate teaching content and methods, integrate interesting elements, and adopt diversified methods such as hierarchical teaching and situational teaching; third, strengthen teacher team construction, improve the training system, and establish innovation incentive mechanisms; fourth, optimize resource allocation, increase investment in venues and equipment, and promote resource sharing; fifth, enrich activity carriers, carry out diversified campus track and field activities, and establish scientific evaluation and incentive mechanisms. The implementation of these strategies is expected to provide effective support for breaking through the dilemmas of middle school track and field teaching and improving teaching quality.

4.2.Future Prospects

With the continuous deepening of educational reform and the continuous development of science and technology, middle school track and field teaching will face a broader development space. In the future, middle school track and field teaching should further strengthen the integration with technology, promote the development of "intelligent track and field teaching", and use big data, artificial intelligence and other technologies to realize the precision and personalization of teaching; strengthen the collaboration with families and society, construct a "school-family-society" trinity track and field education system, and form an educational synergy; pay attention to the track and field teaching needs of special groups of students, such as designing adaptive track and field teaching content for students with weak physical fitness or disabilities, and promoting educational equity.

At the same time, continuous attention and research should be paid to middle school track and field teaching, and teaching strategies should be continuously optimized in combination with the changes of the times and students' needs, so that track and field can truly become an important carrier for improving the physical health of middle school students and cultivating their comprehensive quality, and contribute to the implementation of the "Healthy China" strategy and the all-round development of adolescents.

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