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Research on the Application Methods of Short Video APP in Physical Education Teaching in Colleges and Universities

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Abstract: *With the rapid evolution of the Internet, short video applications have gradually emerged as prominent players in the educational realm, characterized by their unique dissemination features and widespread utility. Higher education's physical education segment, as an integral component of education, faces a myriad of challenges, including inadequate instructional resources and monolithic teaching formats. Leveraging its advantages of fragmentation, strong interactivity, and rapid dissemination, short video applications offer novel solutions to these issues within higher education's physical education curriculum. This paper, through literature review, questionnaire surveys, and case analysis, explores the current application of short video applications in higher education's physical education and identifies existing challenges. It subsequently proposes a series of application methods and strategies. The research indicates that constructing a resource library of short video applications for physical education, designing physical education models based on short videos, establishing a scientific evaluation system, and enhancing oversight and guidance in short video physical education are crucial measures for effectively elevating the quality of higher education's physical education. These application methods not only enrich instructional resources and stimulate students' interests but also enhance the efficiency of instructional management, providing robust support for the modernization reforms of higher education's physical education.*

Keywords: *Short Video App; College Sports; Application Methods*

1. Introduction

The rapid advancement of internet technology has profoundly transformed the manner in which people live and learn. As a nascent form of social media, short video applications have swiftly gained global popularity due to their brevity, compelling nature, and robust interactivity. Within the realm of education, short video apps have demonstrated significant potential, particularly in the context of college physical education. The traditional model of college physical education often relies heavily on classroom-centric instruction, which is beset with limitations such as scarce instructional resources, insufficient teacher-student interaction, and low student engagement. The advent of short video apps offers a novel opportunity for college physical education. By enriching instructional resources and providing diverse learning content, these apps can enhance student interest and engagement through interactive features, thereby elevating both the quality and efficacy of instruction. Thus, a comprehensive exploration of the application methods and strategies of short video apps in college physical education holds substantial theoretical and practical significance.

2. Relevant Theoretical Basis of Short Video APP Applied to Physical Education Teaching in Colleges and Universities

2.1. Characteristics and advantages of short video APP

The distinctive features and advantages of short video apps are particularly pronounced in their application to physical education within higher institutions. This application model not only shatters the temporal and spatial constraints of traditional teaching but also significantly enriches educational resources. Short video apps typically present content in durations ranging from a few seconds to several minutes, a fragmented format that aligns seamlessly with the fast-paced lifestyles of modern students, enabling them to efficiently acquire and digest knowledge during fragmented moments. Additionally,

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these apps boast a robust interactive element, allowing students to engage in the learning process through commenting, liking, and sharing. This interactivity substantially enhances students' interest and motivation, fostering a more active participation in physical education courses. The platform offers a diverse array of content, including instructional videos, demonstration movements, and sports tips—elements that are challenging to provide in traditional classrooms. This variety of educational resources not only meets the diverse needs of students but also aids in their better understanding and mastery of athletic skills [1]. However, the most significant advantage of short video apps lies in their swift dissemination, rapidly transferring the latest sports knowledge and teaching methodologies to a broad audience of educators and students, ensuring they can promptly access cutting-edge information. Given these attributes and benefits, the prospects for the application of short video apps in higher education physical education are exceedingly promising. Nonetheless, it is crucial to judiciously harness these advantages while mitigating potential issues and challenges.

2.2. Constructivist learning theory

The constructivist learning theory posits that learning is an active process of construction, wherein students not only absorb the knowledge imparted by their instructors but also construct meaning through their own explorations and practical engagements. This theory asserts that the learner's prior experiences and existing knowledge serve as the foundation for the construction of new understanding, and the instructional process should be designed to create authentic contexts that foster the learner's initiative and sense of engagement. The application of short video apps in university physical education aligns seamlessly with the core tenets of constructivist learning theory. Students can access a myriad of demonstration videos showcasing various athletic movements on these platforms, which not only exhibit professional techniques but also provide enriched contextual information and practical insights. As students view these videos, they can synthesize their personal experiences and prior knowledge to progressively build a profound comprehension of athletic skills. Additionally, the interactivity of short videos enables students to engage in discussions and commentary with both instructors and peers, enhancing the allure of learning and facilitating the reinforcement and deepening of their understanding through interaction. Instructors can also leverage short video platforms to assign tasks and activities, encouraging students to participate actively by applying their skills and solving problems to achieve learning objectives. In this manner, students shift from being passive recipients to becoming the principal agents of their learning, effectively realizing autonomous learning and knowledge construction. This innovative pedagogical approach not only heightens students' interest in learning but also aids them in mastering athletic skills more effectively through practical application, thereby elevating their overall competencies. Hence, the integration of short video apps in university physical education signifies not merely a technological innovation but also a transformative shift in educational philosophy.

2.3. Microclass Teaching Theory

Micro-lesson teaching theory has found extensive application in the field of education, particularly in higher education sports teaching, due to its concise and condensed nature, focused content, and versatility. Micro-lessons typically refer to instructional videos lasting a few minutes, which can distill and refine knowledge points, allowing students to efficiently grasp core content in a short period. In higher education sports teaching, micro-lessons are particularly well-suited for demonstrating and explaining technical movements, enabling students to repeatedly watch and deepen their understanding and memory of key points after class. Compared to traditional classroom instruction, micro-lessons better accommodate the diverse learning needs of students, especially those requiring additional practice and individual guidance. Short video apps serve as an ideal platform for micro-lessons, supporting various video formats and facilitating sharing and interaction. Instructors can use short video apps to publish micro-lesson videos, allowing students to learn anytime and anywhere, significantly enhancing the autonomy and convenience of learning. Additionally, the commenting and interactive features of short video apps provide students with opportunities for feedback and exchange, enabling teachers to promptly understand student learning progress and adjust teaching strategies. The integration of micro-lesson teaching theory with short video apps not only improves instructional effectiveness but also stimulates students' enthusiasm for learning, allowing them to continuously enhance their sports skills in a relaxed and enjoyable environment. This innovative teaching method not only aligns with the modern educational development trend but also offers new ideas and methods for the reform and innovation of higher education sports teaching [2].

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3. Application Status and Problems of Short Video APP in College Physical Education Teaching

3.1. Such as technical obstacles

Technical impediments constitute an ineluctable issue in the application of short video apps within university physical education, where some instructors and students may lack the proficiency in utilizing new technologies. This not only diminishes the efficacy of instruction but also augments their sense of frustration. For instance, certain educators may encounter technical challenges such as editing and uploading while creating and disseminating short videos, necessitating additional time and effort to learn and adapt. Moreover, disparities in device capabilities and network environments may result in video playback issues such as stuttering or slow loading, thereby impacting students' viewing experiences and learning outcomes. Additionally, the incomplete development of information infrastructure in some universities, coupled with a dearth of essential technological support and training, restricts the application of short video apps. These technical barriers not only hamper the full utilization of educational resources but may also affect instructors' teaching enthusiasm and students' motivation. In this context, technological support and training are paramount. Only by addressing these issues can short video apps truly become effective auxiliary tools in university physical education, aiding educators and students in achieving their instructional objectives more effectively. Although technical obstacles present considerable challenges, it is believed that with continuous technological advancements and broader dissemination, these issues will eventually be resolved, heralding a more vibrant and diverse future for university physical education.

3.2. Uneven quality of content

Nowadays, despite the plethora of sports instructional resources available on short video platforms, not all content is suitable for academic settings. Certain videos exhibit rough production quality, inadequate demonstrations, and even incorrect techniques, which not only risk misleading students but may also pose bodily harm. For instance, some short videos might merely present the superficial aspects of an action without delving into its key points and underlying principles. Students attempting to mimic these actions may misinterpret them due to incomplete understanding. Furthermore, the creators of some short videos may not be professional physical education instructors, limiting their experiential and pedagogical expertise, which in turn restricts their ability to provide comprehensive and scientifically sound instructional content [3]. This scenario can lead students to acquire improper or even detrimental sports techniques, adversely affecting their learning outcomes and physical well-being. Additionally, the lack of systematic and coherent educational content can hinder students from developing a comprehensive knowledge base, thereby impeding their progress towards sequential learning objectives. University educators must exercise utmost caution when selecting short video resources to ensure their scientific rigor and professional integrity. The variance in content quality not only impairs educational effectiveness but also potentially undermines students' trust in short video applications as learning tools. Nonetheless, the potential of short video applications in university physical education remains vast, provided that issues pertaining to content quality can be resolved. The future application prospects appear quite promising.

3.3. Difficulty in supervision

Due to the openness of short video platforms and the vast amount of content, it is challenging for educators to systematically screen and review all videos, which can result in some low-quality or even harmful content infiltrating the educational process. For instance, instructional videos posted by non-professionals may contain incorrect demonstrations of movements, misleading students and potentially causing physical harm. Moreover, the rapid pace at which new content is generated on these platforms makes it nearly impossible for teachers, even those with the best intentions, to keep up with the ever-changing landscape. This difficulty in oversight not only exacerbates the workload of educators but also undermines student engagement and trust in the educational content. Another concern is the relatively open interaction environment on these platforms, where negative comments and feedback can adversely affect students' mental health. For example, disparaging remarks may undermine students' self-confidence, causing confusion and anxiety during their learning journey. The lack of oversight can also lead to copyright issues, where unauthorized content may be disseminated widely, infringing upon the rights of original creators. The presence of these issues necessitates a more cautious and regulated approach to the application of short video apps in higher education physical education. While the advancement of technology has brought convenience, the challenges in oversight

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cannot be overlooked. It is hoped that future technological advancements and platform mechanisms will address these concerns, enabling short video apps to become a robust supplementary tool in higher education physical education fully [4].

4. Application Methods and Strategies of Short Video APP in Physical Education Teaching in Colleges and Universities

4.1. Constructing short video APP sports teaching resource base

Constructing a short video app sports teaching resource library is a significant initiative to enhance the quality of physical education in higher education institutions. These institutions can collaborate with professional sports organizations and renowned coaches, inviting them to produce high-quality instructional videos. These videos should not only demonstrate the correct execution of movements but also elucidate the technical nuances and precautions behind each action, ensuring that students gain comprehensive understanding. Additionally, the school can organize a faculty team to curate and categorize the existing vast array of short videos, establishing a systematic resource library. Each video should undergo rigorous scrutiny to ensure its accuracy and correctness. The resource library should encompass instructional videos for various sports, ranging from foundational movements to complex techniques, catering to the diverse needs of students. Students can use these videos for previewing before and reviewing after classes, thereby enhancing their learning outcomes. Teachers can also flexibly select appropriate video resources according to their teaching plans, integrating them with classroom practice to form a blended teaching model of online and offline instruction. Furthermore, the resource library should be periodically updated to maintain the freshness of its content, preventing students from losing interest due to outdated information. Establishing an interactive platform allowing students and teachers to evaluate and provide feedback on the video content can facilitate the timely identification and correction of issues. The school can also conduct short video production training to enhance the technical capabilities of teachers, enabling them to more effectively utilize the short video app for instruction. The construction of a short video app sports teaching resource library not only enriches teaching resources and elevates the quality of instruction but also stimulates students' interest in learning, making physical education in higher education more modern and diverse [5].

4.2. Design the sports teaching mode based on short video APP

The design of a physical education model based on short video applications necessitates a comprehensive integration of online and offline advantages, creating a rich and diverse learning environment. Universities can develop a series of seamlessly connected courses where students view instructional videos on the short video app prior to class, gaining insights into the upcoming sports activities and fundamental movements. This approach allows students to enter the actual classroom more efficiently, minimizing wasted instructional time. Instructors can adjust classroom teaching priorities based on student feedback and viewing records, focusing on commonly encountered issues through targeted explanations and demonstrations, thereby enhancing the relevance and effectiveness of the instruction. Post-class, students can also utilize the short video app for review, consolidating their learning achievements. For challenging topics and queries, they can pose questions to instructors at any time, who can provide answers through short video responses, significantly elevating the efficiency of learning and student satisfaction. Furthermore, short video apps can host online sports competitions and events, where students capture their own sports videos and upload them to the platform for interaction and competition with peers. This not only boosts student enthusiasm and engagement but also enhances their self-presentation and teamwork skills. Outstanding videos on the platform can be selected as exemplary cases for instructional demonstrations and analyses, aiding students in better comprehending sports techniques and strategies. Instructors can also document students' athletic performances using the short video app, offering personalized guidance and evaluations, ensuring each student receives effective feedback and improvement suggestions. This short video app-based instructional model enriches teaching methods, better addresses students' individual needs, and elevates their sports skills and health levels. I anticipate witnessing more universities actively exploring this model in the future, truly realizing innovations and advancements in physical education.

4.3. Developing the evaluation system of short video APP sports teaching

Crafting a comprehensive evaluation framework for sports instructional content on short video

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applications is pivotal in ensuring pedagogical excellence and maximizing student benefits. This framework should encompass various facets, including the quality of instructional videos, the learning outcomes of students, and the teaching feedback provided by educators. In assessing the quality of instructional videos, an expert review panel should be established to meticulously scrutinize the accuracy and scientific rigor of the video content, thereby guaranteeing that each video furnishes students with correct guidance. Both educators and students can contribute to the evaluation process, offering insights from practical usage, such as video clarity, the standardization of demonstration movements, and the comprehensibility of explanations. Evaluating student learning outcomes can be achieved through regular physical fitness assessments and sporting skill examinations. Educators can then use the test results to analyze the progress of students who have viewed the short videos and promptly adjust their teaching strategies accordingly. Additionally, students can upload their own exercise videos through the short video application, allowing educators to provide online scoring and feedback. This visual evaluation method not only aids students in identifying issues but also enhances their self-confidence and motivation to learn. The evaluation framework should also include assessments of teaching effectiveness. Educators can document and analyze their teaching activities on the short video application, such as video views and student feedback comments, which can reflect the impact of their teaching and student engagement. Tertiary institutions can periodically organize short video instructional competitions to stimulate innovative thinking and enthusiasm among educators, with outstanding instructional videos being recognized and rewarded [6]. Such an evaluation system not only elevates the overall quality of instruction but also fosters positive interaction between educators and students, thereby positioning the short video application as a positive force within collegiate sports education. It is anticipated that more tertiary institutions will proactively advance the establishment and refinement of this evaluation framework, ensuring that students' physical education becomes more scientific and efficient.

4.4. Strengthening the Supervision and Guidance of Short Video APP Physical Education Teaching

Strengthening the oversight and guidance of sports instruction within short video applications is instrumental in ensuring the quality and efficacy of the educational content. This process demands that universities establish a systematic supervisory mechanism to ensure that all instructional videos uploaded meet certain scientific and standardized criteria. For instance, a dedicated review team comprising faculty members from the sports department and relevant technical personnel should be established. These individuals are tasked not only with verifying the accuracy of the video content but also with ensuring that the recording quality and narrative approach align with the cognitive capabilities of the students. The review team could also conduct periodic reviews and updates of the existing video resources to maintain the freshness and relevance of the content, thereby preventing students from losing interest due to outdated materials. Moreover, universities can establish a transparent feedback channel, encouraging students and faculty to voice their opinions and suggestions regarding the instructional videos. This feedback can aid the institution in promptly identifying and rectifying issues within the videos, thereby enhancing the overall educational quality. To further standardize the use of short video applications, universities can develop comprehensive operational guidelines, clearly outlining the considerations that both teachers and students should adhere to, such as selecting appropriate videos and engaging in effective self-study and revision. Simultaneously, the institution should organize regular training sessions to elevate the technological proficiency and instructional capabilities of the faculty, enabling them to harness short video applications more effectively in their teaching, thereby enriching the classroom experience. For students, the university can leverage campus media and physical education classes to disseminate the correct usage methods of short video applications, emphasizing their role as educational tools rather than mere entertainment platforms. This initiative aims to foster healthy study habits and a positive learning attitude. Additionally, universities can implement a tracking system to log students' usage of the short video applications, including the frequency and duration of video views and completed tasks. Such data can provide educators with a deeper understanding of each student's learning progress and challenges, thereby facilitating more personalized guidance and support. Throughout the oversight and guidance process, universities should prioritize communication with students to understand their actual needs and usage experiences. This not only enhances students' satisfaction with their learning experience but also bolsters their enthusiasm for physical education. Oversight and guidance extend beyond the mere control of video content; they encompass the optimization of the entire instructional process. Only by rigorously scrutinizing every facet can short video applications truly become a powerful asset in the realm of university sports education, laying a robust foundation for students' holistic development and healthy lifestyles.

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5. Conclusion

The application of short video apps in college physical education has infused traditional teaching models with a new vitality. However, issues such as technological barriers, uneven content quality, and difficulties in regulation pose challenges to this innovative use. By constructing a resource library for sports teaching through short video apps, designing sports teaching models based on short videos, establishing a scientific evaluation system, and strengthening oversight and guidance for short video-based sports teaching, these obstacles can be effectively overcome, thereby promoting the widespread application of short video apps in college physical education. Looking ahead, with continuous technological advancements and innovative educational philosophies, short video apps are bound to play an increasingly pivotal role in college physical education, offering students a richer, more engaging, and more efficient learning experience, thereby driving the modernization and personalization of college sports education.

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References

[1] Li G ,Geng Y ,Wu T .Effects of short-form video app addiction on academic anxiety and academic engagement: The mediating role of mindfulness[J].Frontiers in Psychology,2024,151428813-1428813.
[2] Yuan B .Application research on the integration of online and offline interest cultivation in college physical education teaching and training[J].Computer Informatization and Mechanical System, 2024,7(6):53-57.
[3] Ya Y ,Bingyue Y ,Guoming Y .Cascade or updown sliding: the influence of interactive interface of short video app on information processing and user experience[J].International Communication of Chinese Culture,2024,11(2):115-132.
[4] Deng Y .Digital Transformation of Physical Education in Colleges and Universities: Theoretical Logic, Practical Dilemma and Practical Approach[J].Journal of Educational Research and Policies, 2024,6(10):49-53.
[5] Qiao H .The role of the O2O blended teaching model in improving the teaching effectiveness of physical education classes[J].Journal of Intelligent Systems,2024,33(1):22.
[6] Limeng Z .Construction of Evaluation Index System of Specialized Teaching Effect of Physical Education in Universities[J].International Journal of Knowledge Management (IJKM), 2024, 20(1):12-13.