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Application and Effect Analysis of Digital Teaching Tools in College Dance Teaching

Xiaoxue Liu

Taishan University, Tai'an, Shandong 271000, China

Abstract: In order to explore the application effect of digital teaching tools in college dance teaching, this study uses case analysis and empirical evaluation methods to analyze the specific application methods and teaching effectiveness of various digital tools in dance teaching. The research focused on dance courses at several universities in the country and abroad, collecting data through feedback from teachers and students. The results show that the rational use of digital teaching tools can significantly improve teaching interactivity and students' learning motivation, and also promote the rapid improvement of students' dance skills. However, teachers' proficiency in the use of these tools and support for the resources remain key factors influencing their effectiveness. The study recommends that the training of teachers and the investment of educational resources should be strengthened to maximize the potential of digital tools in dance teaching.

Keywords: Digital Teaching Tools; University Dance Teaching; Teaching Effectiveness; Case Analysis; Empirical Evaluation.

1. Introduction

With the rapid development of information technology, digital teaching tools have been widely used in the teaching of various subjects, including art education. As an important part of art education, the teaching mode and method of college dance teaching are also constantly exploring and introducing new technical support. The application of digital teaching tools can not only enrich teaching methods, but also improve teaching efficiency and students' interest in learning. However, there is still a lack of research on the specific application effects and influencing factors of these tools in dance teaching. Therefore, this study aims to fill this gap and explore the application and effect of digital teaching tools in college dance teaching.

2. Theoretical Basis of Digital Teaching Tools

Digital teaching tools refer to various software and hardware tools that use digital technology to support and use in teaching activities to improve teaching effectiveness and efficiency. These tools can be broadly divided into several categories: first, teaching management tools, such as learning management systems (LMS), online examination systems, etc., for course management and evaluation, second, teaching content tools, such as e-books, online tutorials, simulation experiment software, etc., to provide rich learning materials, third, interactive communication tools, such as video conferencing software, online discussion boards, etc., to promote interaction between teachers, students and students, and fourth, innovative teaching tools, such as virtual reality (VR), Augmented reality (AR) technology, etc., to provide an immersive learning experience. At present, digital teaching tools have been widely used in all levels and types of education. From primary school to higher education, these tools not only transform the way teaching is done, but also enhance students' motivation and engagement in learning. In higher education, especially during the pandemic, digital teaching tools have shown their irreplaceable importance, making remote teaching possible. In addition, these tools are playing an increasingly important role in non-formal and continuing education, making learning more flexible and personalized. The teaching advantages of digital teaching tools are mainly reflected in the following aspects: first, they can provide personalized learning paths and resources to adapt to different students' learning speed and style, second, through interactive and visual learning methods, they can improve students' learning interest and effectiveness, third, digital tools make teaching resources more abundant and accessible, students can learn anytime, anywhere, and finally, these tools provide real-time feedback and evaluation, which helps teachers better monitor students' learning progress and effectiveness. In conclusion, digital teaching tools can effectively support and enhance traditional teaching methods, bringing revolutionary changes to modern education.

3. Characteristics and Needs of College Dance Teaching

3.1. Basic Characteristics of University Dance Teaching

University dance teaching is diverse and systematic in China. First of all, it covers a variety of dance styles from classical Chinese dance, ethnic folk dance to modern dance and street dance. For example, the Beijing Dance Academy offers a full range of dance education, from classical Chinese dance to modern dance. Secondly, the teaching content includes not only the training of dance skills, but also the courses of dance theory, dance history, stage performing arts, etc., aiming to cultivate students' all-round ability. In addition, the teaching process emphasizes the cultivation of innovative and creative thinking, and encourages students to create dances and participate in various dance competitions, such as the National Collegiate Dance Competition.

3.2. Problems and Challenges in College Dance Teaching

There are also some challenges in the teaching of dance in domestic universities. First of all, high-level dance education resources are unevenly distributed geographically, mainly concentrated in some higher art schools in large cities, such

as the Shanghai Theater Academy and the Central Academy of Drama, and it is difficult for students in remote areas to obtain the same quality of educational resources. Secondly, because dance teaching is highly dependent on practice and teacher-student interaction, the traditional teaching model faces challenges under special circumstances such as the epidemic. In addition, there is a growing need for personalized instruction, but there is still room for improvement in terms of faculty and technical support, especially for students with special needs.

3.3. Analysis of the Needs of Digital Tools for Dance Teaching

In response to these challenges, the application of digital tools is particularly important. First of all, digital tools can provide a wealth of video tutorials and interactive platforms to help students learn and practice different styles of dance. For example, Beijing Dance Academy uses its online teaching platform to provide dance lesson videos from basic to advanced, so that students can learn systematically from home. Second, using video analytics and virtual reality technology, teachers can remotely monitor students' dance moves and provide precise guidance and feedback. For example, using the AI-powered dance analysis software "Dance Assistant", teachers and students can analyze the accuracy and expressiveness of dance movements in detail. In addition, digital tools can facilitate communication and collaboration among students, and through the establishment of online dance communities, students can share their own dance videos and get other people's comments and suggestions, such as the Dance Starry Sky platform. These tools not only help solve some problems in traditional dance teaching, but also open up new ways for the development of dance education, and enhance students' independent learning ability and innovation ability.

4. Examples of the Application of Digital Teaching Tools in College Dance Teaching

4.1. Domestic Application Case Analysis

In China, many art schools have begun to adopt digital teaching tools to improve dance teaching. For example, an art school uses its self-developed online learning platform to provide students with dance courses from basic to advanced. The platform integrates video instruction, motion capture, and real-time feedback systems, enabling students to receive professional dance instruction from any location. In addition, the Central Academy of Drama has created an immersive dance learning environment through virtual reality technology, where students can simulate stage performances in a virtual space, improving the realism and interactivity of the performances. The introduction of this technology not only improves the quality of teaching, but also greatly enriches the learning experience of students.

4.2. Specific Application Methods of Digital Teaching Tools

The application of digital teaching tools in dance teaching mainly includes video teaching resources, teachers can record various dance teaching videos, and students can play them back at any time for self-learning and practice. Motion capture and analysis, using motion capture technology to record students' dance movements, analyze them through professional software, and provide precise technical guidance and suggestions for improvement. Virtual Reality (VR), through VR headsets and related equipment, allows students to enter a virtual dance studio to practice, providing a more realistic simulation of dance scenes. Online real-time feedback, using video conferencing tools such as Tencent Meeting, teachers can comment on students' real-time dance performances and realize remote teaching interaction. The use of these tools makes dance teaching more flexible and efficient, while also providing students with more diverse learning options.

4.3. Analysis of Teaching Effectiveness and Student Feedback

The application of digital teaching tools has greatly improved the efficiency and quality of dance teaching. According to a survey of students at an art school, the majority of students believe that video instruction and movement analysis tools have enabled them to understand the details of dance movements more clearly, speeding up their learning progress. At the same time, the application of VR technology makes the learning process more vivid and interesting, and enhances the learning motivation of students. However, some students reported that over-reliance on technology may reduce face-to-face communication with teachers and classmates, affecting the social experience of dance learning. Therefore, it is necessary to find the right balance between the application of technology and traditional teaching in future teaching, so as to ensure the rational use of technology while maintaining the humanistic care of education.

5. Evaluation of the Effect of the Application of Digital Teaching Tools

5.1. Effect Evaluation Methods and Indicator System Construction

In order to comprehensively evaluate the effectiveness of digital teaching tools in dance teaching, it is recommended to adopt a variety of evaluation methods and construct a comprehensive index system. The evaluation methods mainly include quantitative analysis and qualitative analysis. Quantitative analysis can be done through the measurement of learning outcomes (e.g., test scores, skills test results), while qualitative analysis focuses on gathering feedback from students and teachers, classroom observations, and case studies, among other things. The suggested indicator system should include learning effectiveness, learning efficiency, student satisfaction, teacher adaptability and technical reliability, so as to comprehensively evaluate the practical application effect of teaching tools.

5.2. Evaluation of Teaching Effectiveness

For example, an art school uses a variety of digital teaching tools, including video teaching, motion capture technology, and virtual reality. By comparing the students' dance skills assessment results before and after the implementation, the data shows that the students' technical mastery has been significantly improved. In addition, through a questionnaire survey of students and teachers, the majority of students expressed a high level of satisfaction with the learning

experience of using digital tools, believing that these tools greatly helped them better understand and practice dance movements. Teachers also reported that while it took time to adapt to the new technology initially, the tools significantly improved the efficiency and quality of teaching in the long run.

5.3. Problem and Challenge Analysis

Although digital teaching tools have shown positive effects in dance teaching, they also face some problems and challenges in the process of practical application. For example, some teachers and students have difficulties using technology, especially older teachers and students with a weaker technical base, who need additional training and time to adapt. In addition, high-quality motion capture equipment and VR equipment are more costly, which is a significant financial burden for some underfunded institutions. While digital tools provide convenience, over-reliance can reduce face-to-face interactions between students, affecting teamwork and social skills development. When using digital tools, it is also important to ensure that students' personal data and learning records are properly protected against data breaches or misuse. In conclusion, although digital teaching tools have revolutionized dance teaching and significantly improved the quality and efficiency of teaching, they also need to address issues such as technology adaptation, cost, social interaction, and data security. Future developments should focus on the integration of technology with traditional teaching methods and the effective management of these challenges.

6. Suggestions on Strategies to Improve the Effectiveness of Dance Teaching in Universities

6.1. Strengthen the Customized Development of Digital Teaching Tools

Dance teaching requires highly personalized teaching tools to meet the needs of different dance genres and teaching methods. It is recommended that universities cooperate with technology development companies to develop customized digital teaching tools that are more in line with the characteristics of dance teaching. These tools should include more accurate motion capture technology, interactive interfaces that are more suitable for teaching dance, and a richer library of dance resources. At the same time, the needs of students at different stages of learning and at different skill levels should be taken into account to make the tools more flexible and easy to adapt.

6.2. Improve Teachers' Ability to Use Digital Tools

Teachers are the key to the success of digital teaching. It is recommended that universities organize regular professional training to improve teachers' understanding and operation of emerging digital teaching tools. In addition, a teacher technical support team can be set up to help solve technical problems encountered in the teaching process. Increasing teachers' technical confidence and proficiency can more effectively integrate digital tools into their daily teaching.

6.3. Enhance Student Interaction and Engagement

While digital tools provide convenience, face-to-face interaction is still an integral part of dance instruction. It is recommended to design more activities to promote interaction between students, such as online dance competitions, virtual dance workshops, etc., while using digital teaching tools. In addition, social media and a learning management system (LMS) can be leveraged to enhance students' sense of engagement and community belonging, encouraging students to support and communicate with each other in the learning process.

6.4. Suggestions on Policy and Financial Support

In order to ensure the widespread application and sustainable development of digital dance teaching tools, policy and financial support are needed. It is recommended that the education department and higher education institutions set up a special fund to support the digital transformation of dance education. This includes funding the development of dance teaching software, purchasing high-quality teaching equipment, and providing technical training to teachers. At the same time, policymakers should consider developing standards and guidelines to ensure the effectiveness and security of digital teaching and learning tools.

By implementing these strategies, the quality and effectiveness of dance teaching in universities can be effectively improved, while ensuring that teachers and students can take full advantage of modern technology to improve the overall level of dance teaching.

7. Conclusion

This study explores the application and effect of digital teaching tools in college dance education. The study found that these tools can significantly improve teaching efficiency and student learning outcomes, especially in the precise learning of technical movements and the mastery of complex dance combinations. Through empirical analysis, we have observed that students are highly receptive to digital teaching tools, and teachers are discovering new possibilities in teaching methods through the use of these tools. In addition, the study points out the technical, cost, and interactive challenges encountered during implementation. Although this study provides useful insights, there are some limitations. First of all, the research sample is mainly limited to certain regions and universities, and may not be fully representative of all dance education backgrounds. Secondly, there is less quantitative data in the study, and more experiments and data are needed to further analyze the specific learning effectiveness of digital tools. Future studies could expand the sample to include different regions and different types of dance disciplines. At the same time, more research can be explored on the impact of digital teaching tools on dance creativity and expressiveness, and how these tools can better serve students with different learning styles and needs. Based on the findings of this study, it is suggested that higher education policymakers should pay attention to the digital transformation of dance education. First of all, the policy should support the technical renewal and resource sharing of the dance profession, such as promoting the exchange and sharing of high-quality teaching resources through the

establishment of a digital platform for dance education. Second, financial investment in the digitalization of dance education should be increased, including funding equipment procurement and teacher training. In addition, the policy should also encourage collaborative research between universities to explore best practices and innovative approaches to digital teaching in dance education. Finally, it is recommended to develop relevant standards and evaluation mechanisms to ensure the quality of teaching tools and the effectiveness of teaching outcomes. In short, digital teaching tools have brought unprecedented opportunities for dance education, but their wide application and in-depth development still require policy support, technological innovation and continuous exploration of educational practice. The future of dance education will rely more on the integration and innovation of science and technology to adapt to the changing educational needs and challenges.

References

[1] Ye Ziyi. Exploration and Innovation: On Digital Technology in the Perspective of Dance Teaching[J]. Ingenuity, 2023(4):57-59.

[2] Bai Shi, Li Yanda. Exploring the application of digital technology in the blended dance teaching mode in colleges and universities[J]. Drama House,2023(13):135-137.

[3] Research on the application of digital technology in sports dance teaching[J]. Cross-Country World,2023,18(19):227-229.

[4] Hu Yitian.Application of digital technology in college dance teaching[J].Reading friends,2023(3):240-242.

[5] Wang Xiaojing.The innovative path of college dance teaching method under the background of "Internet+"[J].China National Expo.2020,(18).

[6] Yang Xiaodan.Research on the practice path of dance teaching in colleges and universities supported by digital technology [J]. Art Science & Technology.2023,36(18).