Applied Research of Multimedia Technology in Dance Teaching

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Abstract: The application of multimedia technology in dance teaching has enhanced the interest of dance classroom teaching, enhanced the students' aesthetic ability of dance, enhanced the enthusiasm and initiative of dance learning, and enhanced the scientificity and effectiveness of dance accompaniment. The main applications of multimedia technology in dance teaching include multimedia courseware, digital audio technology, network video technology, streaming media technology, virtual reality technology and software development technology. In practical application, it is necessary to keep a clear understanding, give full play to the superiorities of multimedia technology, avoid negative effects, make reasonable arrangements according to the actual situation of students, plan the teaching content and process, make classroom teaching efficient and orderly, and maximize the value of multimedia technology in dance teaching.

1. Introduction

Multimedia technology stores and manages various kinds of information such as language, data, audio and video through a computer, enabling users to exchange real-time information through a variety of senses and computers. The content displayed and carried by multimedia technology is actually a product of computer technology development. "Multimedia" is compared with "single media". "Multi" means more media devices, more media functions and more software systems, which bring more sensory stimulation to people, as well as the application and intersection of multiple fields. "Media" includes not only the traditional communication media, but also the integration of multiple media collections, the organic combination of multiple media software and hardware, the control environment of real-time interaction, and the interaction of different media, including sound, text, image, animation, video and other forms. From the perspective of education, modern multimedia technology refers to the combination of multiple media dominated by computers. It is a new type of technology based on the combination of various media, and conducts a series of data integration processes through the collection, induction, processing, storage, transformation and reproduction of teaching information, so as to effectively convey educational information by using various information such as text, graphics, sound and animation in teaching. It enriches the teaching method and transforms the various sensory media into the inherent transmission form of the teaching content, mobilizing the students' enthusiasm for learning.

Dance is the most unique artistic expression in artistic aesthetics. It can not only express emotions but also reach beauty. It will express time and space and express harmonious rhythm. It not only beautifies the art of human body movement, but also transcends appreciation of the beauty of the body and soul. In the field of art education, dance occupies a dominant position, which not only can effectively train students' physical quality, but also enhance students' personal temperament and improve students' aesthetic ability. Dance education technology is the driving force for the progress of dance teaching and the embodiment of the teaching level of dance teachers. Advanced education technology can improve the teaching level and teaching performance, so that the teaching work is relatively stable at a good level. On the contrary, it will lead to disorder and confusion in teaching. Traditional dance teaching is a way of teaching by words and deeds, which is mainly to impart dance theoretical knowledge and demonstrate and explain movements. The

theoretical knowledge mainly adopts illustrations and words, and the teaching method is tedious, so it is impossible for students to understand the essence of dance. Action demonstration depends on the teacher's presentation in class. Without class, students cannot watch the teacher's presentation. The teaching process is dominated by teachers, with too much emphasis on individual role, and students lack of opportunities for independent innovation, which hinders the improvement of dance skills. Modern educational technology is the product of the development of science and technology, and multimedia technology is the core part of it. The application of advanced information technology and rich resources in dance teaching will have a profound impact on improving the quality of dance teaching and inheriting dance culture.

2. Superiorities of Multimedia Technology in Dance Teaching

In the era of rapid development of information, multimedia technology has entered the public life and has been widely used in dance teaching. It already has a strong teaching function. The combination of traditional teaching methods and multimedia teaching makes dance teaching realize real value, exert its greatest advantage and bring the most powerful guarantee. The advantages of multimedia technology applied to dance teaching are mainly reflected in the following aspects: First, improve the fun of dance classroom teaching. Using multimedia technology to build a complete dance teaching system, dance teachers show students the history, culture, connotation and movement related to dance, so that students can have a deep understanding of dance culture, actively participate in the learning of dance courses, and improve the interest of dance teaching. Second, enhance students' aesthetic ability of dance. Multimedia technology contains rich images and video, and teachers collect professional dance beautiful pictures and videos based on the specific content of dance teaching to, and encourage students to use basic theoretical knowledge of appreciation, in a particular situation, feel the charm of dance culture, and stimulates the student to dance the inspiration of innovation, improve the students' dance aesthetic level. Third, enhance the enthusiasm and initiative of dance learning. The application of multimedia technology has the characteristics of high speed information transmission function and large capacity of learning content, which can transmit more teaching information to students in a short time and increase the efficiency of teaching content and course transmission. For the dance movements that are difficult to learn, the dance movements can be broken down and practiced repeatedly through video, so as to reduce the learning difficulty. Learning the dance in a relaxed environment will improve both the interest in learning and the initiative in practicing the dance. Fourth, enhance the scientificity and validity of dance accompaniment. Dance training is inseparable from rehearsals, music accompaniment and teacher guidance. If teachers use instrumental accompaniment, they may neglect the guidance of students. With the introduction of multimedia technology, teachers can guide and correct students' actions while playing accompaniment music. The combination of the synthesized vocal sound accompaniment and the piano accompaniment makes the accompaniment music more appealing, and enhances the effect and learning efficiency of the music accompaniment.

3. Main Application of Multimedia Technology in Dance Teaching

Multimedia technology has been widely used in dance teaching, and it includes the following six aspects:

(1) Multimedia Courseware. Multimedia courseware is a computer software that is designed according to the purpose of teaching and reflects the teaching content and teaching strategies under the guidance of certain learning theories. Multimedia courseware must be designed strictly according to the requirements of the syllabus and the teaching needs, and be made into the course software by means of various media and hypertext structure. Compared with other teaching media, multimedia courseware has many advantages: Interactivity. It breaks through the unidirectional limit of information transmission and realizes two-way communication and human-computer interaction; Integration. The teaching content and the manifestation form are various, in carries the

information aspect to realize the true multimedia; Intelligent. It can make judgments according to students' reactions, conform to human cognitive rules, and facilitate students' associative thinking; Information transmission network, transmission timely and reliable, high efficiency. The advantage of multimedia courseware is incomparable to the traditional educational means. It solves many problems in the collective coordination of dance teaching and shows the image, intuition and vividness of dance. Playing FLASH animation, students can understand and master the teaching content vividly, and participate in the process of feeling, expressing and creating dance effectively.

(2) Digital audio technology. Dance is a comprehensive art, and the relationship between dance and music is inseparable. Music creates auditory images with beautiful sounds, and dance creates visual images with beautiful movements, which combine to form the dancing art flowing in time and space. Dance is a flowing sculpture, and dance is accompanied by music. They are complementary and interdependent, weaving together a beautiful flower of art. Music and dance are a pair of complementary unity, a good music can make the dance vocabulary concise, concentrated and full of emotion, hint the dance movement and emotional connotation, make the dance thought and action more rich. Audio technology has experienced many years of development, digital technology has become the main mode. Due to its high performance, convenience and small size, digital audio equipment is widely used in audio system, network multimedia and digital broadcasting. Digital audio technology expands the artistic expression space and display field of sound. The application of digital audio technology in dance teaching expands the imagination of dance and increases the appreciation of dance, which will definitely cause profound changes in dance teaching and enable students to obtain more dance information in limited time.

(3) Network video technology. Traditional dance teaching adopts the "oral teaching" method, including oral explanation and demonstration. Teachers show their accomplishment in language, thought, culture and art in oral and personal teaching, and pay attention to heuristic teaching, so that students' artistic quality can be improved in the training. Therefore, the traditional teaching method conforms to the law of dance teaching and is also the most basic method of dance teaching. However, the number of students and teaching time of the professor are limited, and the movements are instantaneous. In the process of review, students often find it difficult to recall the difficulties and the rhythm of the movements taught by the teacher. With the continuous development of science and technology, video teaching emerges at the right moment. Video is recorded and uploaded to the network for communication, which has the characteristics of fast transmission speed and resource sharing. It is very suitable for the teaching of dance art and other action guidance. The network video teaching method can achieve resource sharing. Students learn dance through video, which is not limited by time and place. The communication speed is fast, students can watch it independently, and the dance teaching effect is better. Through the dance network video teaching, the advantages of time fragmentation and resource sharing will be exerted to stimulate students' interest in learning and cultivate students' self-learning ability.

(4) Streaming media technology. Streaming media technology is the continuous image and sound information, after dealing with the compression on the web server, from the video server to the user's computer order or each package in real-time transmission, allows users to download and watch or listen to, but don't wait to download the zip file to your computer to watch network transmission technology. In this technology, a buffer is created on the computer of the user, and the next segment of data is used as buffer before playing. When the actual connection speed of the network is less than the speed consumed by playing, the player program will take the data in the buffer, which can avoid the interruption of playing and ensure the playing quality. Computer image processing capabilities and network communication technologies continue to mature, and video live broadcast and on-demand broadcast enter a period of rapid development, providing a new way for dance teaching. Dance popularization education is mainly for non-dance students and amateur dance enthusiasts, and cultivates the ability in dance aesthetics, dance training and basic performance. The application of streaming media technology is of great significance in improving the informationization level of dance teaching and promoting the popularization of dance art.

(5) Virtual reality technology. Virtual reality technology involves a lot of complex subjects,

integrating sensor technology, network technology, artificial intelligence, computer graphics and other technologies, and through the computer to show the image of realistic three-dimensional effect picture, so as to provide more possibilities for information technology imaging. At present, this technology is not only loved by people in many fields, but also has appeared the trend of regular use. Virtual reality technology applied in dance teaching has the following functions: First, the demonstration function. OpellGI technology is used to input dance demonstration into the system, and the system makes 3d animation of dance movements, demonstrating the dances to be learned from different angles and speeds. Second, motion capture. Capture the movements of students during dance practice, find out the shortcomings, compare the students' dance movements with the standard dance movements, find out the differences, and correct the feedback. Third, learning feedback. Through a variety of ways to learn behavior feedback, put forward guidance. Observe the students' dance movements, find out the differences marked as red, and then calculate the statistics to give an accurate score evaluation.

(6) Software development technology. The software development technology is used to construct the digital dance teaching system. The main functions are as follows: First, the Internet link system. Provide support for the communication, viewing, discussion, uploading and downloading of dance resources. Get dance teaching information resources through the Internet, and provide rich materials for dance teaching. Second, the dance digital image acquisition and preservation system. The teaching materials, performances, and styles of dance materials are preserved in a digital way, transforming the immediacy of dance art into permanent, providing a basis for further study of dance activities. Third, the dance digital image editing and reproduction system. From the fleeting performance space to the editing and reproduction system that can be operated repeatedly, the dance digital information is effectively restored and a new perspective is obtained. Fourth, the dance digital image analysis and research system. The teachers use the relevant dance digital information for analysis and research, find the problems in the dance teaching process, study new teaching methods, seek new teaching rules, optimize the dance teaching process, deepen the dance movement research and scientific dance teaching research, so as to improve the dance teaching level.

4. Negative Effect of Multimedia Technology in Dance Teaching

Multimedia technology is applied to dance teaching, which gives full play to the advantages of rich teaching resources, easy storage and carrying, saving lecture time, enhancing teaching effects, diversifying teaching methods, and vivid teaching content. However, "science and technology is a double sword", while gaining great benefits, it also brings a variety of disadvantages and produces a lot of negative effects: Students pay too much attention to audio-visual materials and ignore the teacher's action demonstration and language explanation; Students' over-reliance on multimedia resources weakens their thinking ability; Teachers single-mindedly pursue the technical content of multi-media and ignore the advanced teaching ideas and teaching models; Multi-media resources have too strong sensory stimulation, which affects the training of students' abstract thinking ability and is not conducive to the overall improvement of teachers' comprehensive quality; Too much information load affects students' understanding and digestion of knowledge. Information technology can not replace teachers, but replace or assist teachers to complete repetitive or impossible work. Teachers should reduce the negative effects of multimedia and play the role of modern information technology in teaching to achieve the purpose of improving the effectiveness and efficiency of teaching activities.

5. Conclusion

Multimedia technology has the characteristics of large information content and fast transmission speed, which has certain advantages in dance teaching, saving teaching time, improving the quality and efficiency of teaching. However, the foundation of each student is different, and the fast pace of teaching makes it difficult for students with weak foundation to adapt. The increasing density of

teaching information dissemination aggravates students' sense of inadaptability. Therefore, teachers must keep a clear understanding when introducing multimedia technology to assist dance teaching, reasonably arrange the teaching content and process according to the actual situation of students, so as to make classroom teaching efficient and orderly. Teachers play a leading role in dance teaching, enable students to master dance theory knowledge more systematically, supervise students' dance training, set up student-oriented classroom links, and adopt dance teaching strategies more suitable for students' characteristics based on the actual situation. In the teaching practice of using multimedia technology, it is necessary to give full play to the important role of teachers in dance teaching, combine with the development needs of society and industry, explore new teaching strategies, and maximize the value of multimedia technology in dance teaching.

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