

Construction and Research of Intelligent Learning Environment for Art Education Based on “Internet Plus”

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Abstract: With the continuous development of education informatization, intelligent education has become a new hot spot, new field and new trend in education, leading the rapid development of education modernization. Art education is a new discipline. It is different from the other education-related disciplines. It has the characteristics of difference and flexibility, which are also the reason why it has not been well integrated with technology. We need to explore the construction of an intelligent learning environment for art education on the basis of the current “internet plus” Educational background to promote the sustainable development of art intelligent education.1. introduction

1. Introduction

At present, the research and application of smart classrooms in most art schools are in their infancy. The construction of smart classrooms has basically been at the stage of developing or purchasing classroom platforms. Some schools simply put online lesson plans, multimedia courseware, and teaching videos in place for general classroom teaching, and some of them directly apply quality courses to the network. Therefore, the smart classrooms of the art discipline have focused too much on equipment upgrades, network courseware, and multimedia presentations. It is still the traditional teaching concept inherently, just covered by a networked appearance, and does not reflect the teaching process of the smart classrooms including interaction, monitoring, evaluation and feedback. The course did not start from the essence of the teaching model of smart classrooms, so the overall quality was not high, and the market was caught in serious imitation and a lack of interaction design, evaluation and feedback.

At the same time, with the exposure of some shortcomings of information technology and network teaching in art education, some teachers in art colleges showed a lot of resistance. For example, some students relied too much on computers in the design, and they used software to piece together existing graphics in a framework that complied with the general rules to complete a well-designed but non-personal design work. The existing works they used as reference were original. A lack of imagination and the fact that students spend more time to deliver their computer effects than to conceive a design solution when designing a work, severely stifled the ephemeral design inspiration in finding out the solution. Computer operation training replaced modelling ability training. It became a common phenomenon. In addition, in online teaching, teachers cannot directly communicate with students face-to-face, leading to a lack of interaction; as online teaching has higher requirements on students' active learning but no strict requirements on teachers, some students who were less active in learning were put in the position of passive learning, and hence it was difficult for them to obtain good learning effect.

2. Functions of Art Education

The most basic feature of art is its aesthetic value. Artists express their aesthetic consciousness and feelings through art, and appreciate the perception and the aesthetic needs through art appreciation. Art education has the characteristics of subtleness. Through art activities, a person feels the influence of truth, kindness, and beauty. It causes changes in thoughts and feelings as well as attitudes to life. Art education is to appreciate excellent works of art and to deepen students'

understanding of social life. Art reproduces social life through images [1]. Excellent works of art have concentrated and condensed the historical and practical experience and essence of human social development, which embodies the creator's personal understanding of social life and is often praised as “the mirror of social life” [2].

Since the 1990s, the demand for design practitioners has kept increasing. Professor Matthias of the Kassel School of Art in Germany made a summary of the current state of Chinese art and education in *It looks spectacular: Chinese art education from 1990 to 2005*. From the title of the article, we see the 15-year art education in China “looks spectacular”, and indeed it is “meaningful”. The contradiction between the large number of students and insufficient resources has existed in Chinese universities for a long time. However, it will be costly and time-consuming in the construction of traditional classroom teaching and thus the contradiction cannot be solved in a short time. In summary, it is urgent to build a smart learning environment for art education.

3. The Concept of “Internet Plus” Education and Intelligent Learning Environment

3.1 Education in Internet Plus

In 2015, Chinese Premier Li Keqiang first proposed “Internet plus”, meaning that a new era of cross-border integration has arrived. At present, traditional teaching classrooms can no longer meet the needs of students' individualized and diversified learning. How should schools and teachers respond to the problem? It will be a focus in Chinese education.

As we all know, the classroom, as a main component of education, is a place for constructing and disseminating knowledge. With the rapid development of China's economy, the learning environment has been evolving, from relying on “blackboard + chalk” to “computer + projection” modern multimedia classrooms. Accordingly, the teaching modes are also changing. At the same time, in the context of “Internet plus”, and next-generation information technology, the concepts of “smart education” and “smart teaching” have also been proposed. The purpose is to build a smart teaching environment through intelligent technology, and to expand ubiquitous, intelligent, interactive, and environment-friendly relationship among teachers and students, so as to develop teaching and learning activities, cultivate high-level talents in the new century, and achieve fairness and personalization in education.

According to the research, we believe that “Internet plus” education is to use the Internet model to reshape the content and system of education on the basis of a clear understanding of the nature of education, rather than simply moving offline education to online. “Internet plus” presents new system and new structure. The essence of “Internet plus” is fragmentation and reconstruction, which embodies the “view” of technology [3]. The fundamental point of “Internet plus” education is not to break the traditional system of education itself, but it is to make education more personalized, integrated and ubiquitous, thus promoting people's wisdom. “Intelligent learning environment” focuses more on the wisdom of “teaching” and “learning.” At present, the construction of intelligent campuses in some colleges and universities only emphasizes the intelligence of management and environment, but ignores the intelligence of teaching and learning.

3.2 Intelligent Learning Environment

So far, there has not been a very clear concept of the intelligent learning environment. Therefore, the intelligent learning environment to be studied in this paper is mainly to integrate the relevant laws of learning into the intelligent learning environment, and to explore the changes that laws can lead to the intelligent education environment. It needs to reconstruct the campus informatization on the basis of the digital campus, that is, to establish a smart campus and create a space-time campus environment with certain wisdom, so as to facilitate the users in the campus to set up seamless connection with the Internet by means of various smart terminals [4]. Students can also learn and absorb knowledge in an orderly way. Dynamic balance: it can realize the self-regulation of teachers and students, maintain their normal functions, and help teachers and students to overcome and eliminate external interference and limiting factors, in a bid to maintain the stability and

sublimation of education. In the specific teaching process, if the boring teaching contents can be embellished with new technologies and knowledge to reflect the social development trend, the students' learning attitude will change positively.

4. Exploration on Construction of Intelligent Learning Environment for Art Education on the Back of Internet Plus

4.1 The Goal of Building an Intelligent Learning Environment

The intelligent learning environment for art education constructed in this article is a new form of learning that solves problems encountered in traditional teaching, enhances classroom decision-making analysis and interaction capabilities, and improves classroom teaching quality and efficiency. It can implement dynamic learning analysis and evaluation. By using big data learning analysis technology to provide dynamic assessment and feedback, teachers can quickly make dynamic diagnostic evaluations of the entire process of student learning and reorganize teaching and process structure. By the adoption of the intelligent classroom information platform, the communication between teachers and students becomes fast and three-dimensional. At the same time, it will push the learning resources in time if needed.

4.2 Content of the Construction of Intelligent Learning Environment

The construction of intelligent learning environment for art education based on “Internet plus “ is a new teaching form based on data learning analysis and mobile learning terminal use. It is an information-based classroom teaching system composed of platforms, people, and their activities, as shown in Figure 1.

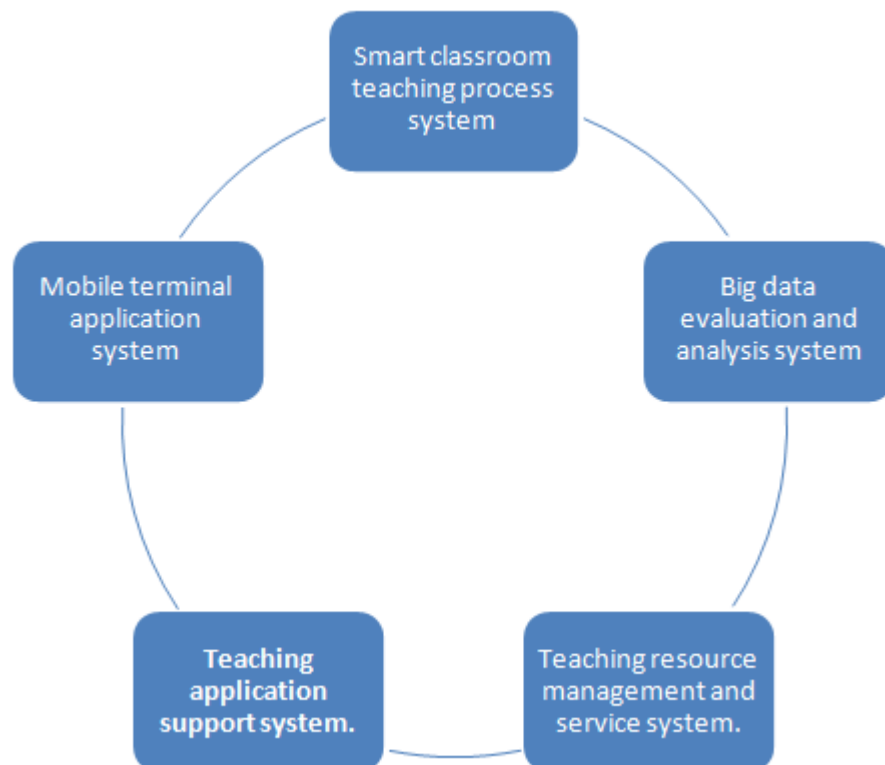


Fig.1 Intelligent Learning Environment t for Art Education

The “Intelligent Learning Environment t for Art Education “ is composed of five parts: teaching process, mobile terminal, application support, big data evaluation and resource service.

Smart classroom teaching process

The teaching process is an application manifestation of smart classrooms. It consists of spiral

closed loops before, during, and after class. Usually, the pre-class links include academic analysis, preview assessment, and teaching design. The intra-class links cover topic introduction, inquiry learning, real-time detection, and summary improvement. The post-class links encapsulate homework, micro-lesson guidance, and reflection evaluation.

1) Smart mobile terminals for teachers and students

It provides teachers with “teaching” and students with “learning” application tools, and implements communication and information service support methods for pre-, during-, and after-school teaching.

2) Teaching application support system

The system is a teaching application support platform for smart classrooms, providing intelligent terminal learning, management, and application service functions, including micro-lesson production, micro-lesson applications, learning resource push, communication tools, third-party APP applications, and so on.

3) Big data evaluation and analysis system

This system is the core subsystem of a smart classroom. Based on big data learning analysis, it provides formative, summative, and diagnostic evaluation services for the quality of learning and teaching, including test systems, teaching quality evaluation systems, and dynamic learning evaluation analysis systems.

4) Teaching resource management and service system

It provides management and service support for learning resources based on curriculum standards, general electronic teaching materials, various question bank systems, dynamic teaching data, and educational management information.

5. Conclusion

In the context of today's Internet + education, the construction of an intelligent learning environment is conducive to improving the learning effect of students and promoting the development of students' comprehensive quality. In the process of building an intelligent learning environment, we need to pay attention to basic conditions and technical support. Art education is different from other disciplines. There seem to be some situations that are not well adapted to the information age. However, in the “Internet plus “ era, our pursuit is a free, human-enabled, individual, and open demand. Here, art and technology, art and the Internet coincide. In such a highly intelligent learning space based on an intelligent learning environment, the changes of learning style, the diversity of learning methods, and the effect should be obvious. When art education is more deeply integrated into the “Internet plus “ wave, the integration and innovation of technology and art education, and the establishment of an intelligent environment that stimulates the interest of teachers and students in learning, can create opportunities for students to grow and function. Only in this way can the functions of promotion and integration for university education, teaching and campus management services come into full play.

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