



Research on Intelligent Classroom Teaching of Film and Television Animation Course

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Abstract. This article through the organic integration of intelligent classroom and Chaoxing online teaching platform, respectively from the “teachers, intelligent classroom and network platform, students” three dimensions and “before class, in class, after class” three stages, the film and television animation course intelligent classroom teaching mode to practice exploration, build online hybrid intelligent teaching mode. Integrate Chinese excellent cultural elements and VR/AR technology, reconstruct project-based teaching content and diversified assessment and evaluation methods, better cultivate students’ practical creation ability of film and television animation projects, So as to better promote the development of animation culture education.

Keywords: animation course · animation education · intelligent classroom · intelligent teaching

1 Content Introduction

The research on intelligent classroom teaching of film and television animation courses is a model under the deep integration of intelligent classrooms and network platforms. According to the actual needs of animation professionals in enterprises, combined with the application of future animation and AR/VR, digital and intelligent, and the meta universe in the educational industry scene, it optimizes the content of curriculum teaching [1], pays attention to knowledge transmission and thinking inspiration, and integrates curriculum ideological and political education and mass entrepreneurship and innovation education for re design, classification integration, and project-based reconstruction, At the same time, we will develop and expand online teaching resources in order to achieve moral character building and innovative ability training.

First of all, according to the orientation of the course teaching objectives, optimize the teaching content of the film and television animation wisdom class, re design, classify and integrate the course content, project reconstruction into the excellent Chinese cultural elements, and focus on the cultivation of innovative application ability [2]; Then improve the course teaching resources, combine teaching courseware materials with teaching videos, and combine teaching projects with work creation to create complete

online teaching resources; Secondly, we should build a teaching interaction model. Relying on the “Superstar Network Teaching Platform” and combining with the intelligent classroom, we should establish a intelligent teaching interaction model for the curriculum, highlight the “intelligent” teaching characteristics, give play to the advantages of mixed interactive teaching, “co-exist with more, complement and blend”, meet the needs of students for fragmented learning, and achieve the goal that students are not limited by time and space to learn [3]; Finally, improve the evaluation method of course teaching and enhance the effect of animation teaching.

2 Literature Review

In the context of National Education Informatization 3.0, all universities are committed to the reform and innovation of intelligent classroom teaching. Generally speaking, scholars’ research on intelligent classroom can be divided into two aspects. The first aspect is from the perspective of teachers’ teaching, which believes that the intelligent classroom is to build a student-centered participatory classroom. Teachers can flexibly and intelligently choose new teaching strategies to enable students to achieve the internalization of knowledge and skills and intelligent learning. The second aspect is from the perspective of learners’ learning. Intelligent classrooms rely on big data and intelligent learning environment to make students’ learning develop in an all-round, personalized and diversified way, and promote students’ intelligent, lifelong and all-round development [4]. At present, many scholars more agree with the perspective of learners. However, at present, there are many problems in classroom teaching, such as insufficient attention from teachers and students, insufficient teaching ideas, teaching models and methods to keep pace with the times, and unsatisfactory teaching results. Classroom teaching needs to be reformed and innovated to achieve the goal of intelligent classroom teaching.

Education informatization 3.0 is building a new future. As the carrier of intelligent classroom teaching, intelligent classroom is the inevitable outcome of the development of education and teaching informatization to a certain stage. Specifically, the intelligent classroom is based on the service of the education cloud platform. Teachers and students establish an intelligent learning environment through the software and hardware platform. Teachers can comprehensively follow up and optimize all teaching links before, during and after class, effectively carry out personalized self-study before class, intensive teaching and more practice during class, and consolidate innovation after class [5]. The technical direction includes animation and AR/VR, digital and intelligent, and the gradual maturity of the application of meta universe in the educational industry [6]. The intelligent classroom teaching research of film and television animation course is student-centered, with the help of modern information technology, to cultivate students into “all-round development people” with certain creativity.

3 Research Method

This paper conducts intelligent classroom teaching research based on the deep integration of intelligent classroom and network platform, aiming to give full play to the

dominant position of animation courses, enhance real-time communication and interaction between teachers and students, so as to improve students' learning enthusiasm, and truly realize intelligent teaching and learning [7]. To provide a feasible reference for the construction of relevant courses in order to achieve high-quality teaching results.

- (1) Preliminary preparation stage: based on the reference materials, a intelligent classroom teaching reform plan for film and television animation courses was drawn up with the research object of Grade 20 and Grade 21 of digital media specialty; Fully demonstrate the project research contents, possible difficulties and other aspects, analyze and discuss the research status at home and abroad, sort out the theoretical basis and key technologies, organize teachers in the project team to carry out learning and training, and actively participate in the project research in combination with their respective teaching characteristics.
- (2) Specific implementation stage: construction of online and offline hybrid intelligent teaching mode.

The first stage is the optimization of network teaching resources. According to the orientation of the teaching objectives of the course, optimize the teaching content of the course, and upload the video, pictures, audio and video and other resource packages of the course micro lesson to the Superstar online teaching platform in the form of SPOC, which contains the excellent Chinese cultural elements.

The second stage is the overall design of intelligent classroom teaching. Make full use of the existing environment of the intelligent classroom to build a teaching system model, mainly from the teaching scene construction, role construction, teaching scene construction three aspects of detailed analysis of the intelligent classroom construction plan.

The third stage is the multiple evaluation of classroom teaching effect. Increase the proportion of process assessment, including sign in, task point learning, preemptive answer or selection, in class quiz, questionnaire, extended learning, discussion, homework, etc. Creation of staged works in the mid-term exam will be included in the assessment, and the proportion of comprehensive innovative works at the end of the period will not exceed 50%.

- (3) Feedback and summary stage: summarize the problems and effects of the intelligent classroom teaching mode of film and television animation courses, analyze the next research and practice direction, and promote the application of the results in the teaching practice of similar courses.

4 Research and Discussion

Relying on the Internet, big data and other information technologies, the intelligent classroom has changed the classroom teaching mode, dynamically collected students' learning data through the online teaching platform, made real-time feedback and evaluation by teachers, and pushed intelligent learning resources to achieve an efficient, personalized and innovative intelligent classroom. Based on the OBE concept, this paper integrates the intelligent classroom into the teaching reform process of film and television animation courses, designs specific teaching reform plans from multiple aspects

such as teaching goal orientation, teaching content design, teaching mode and method, and teaching effect evaluation, comprehensively applies image processing technology, 3D modeling technology, virtual roaming technology, etc., and excavates the excellent traditional Chinese cultural elements such as spring culture, red culture, intangible cultural heritage, etc., Take Jinan Spring Culture Tourism Animation, Jie fang ge Red Exhibition Animation, Digital Shadow Play Art Performance, etc. as the design project cases of film and television animation works, enrich 3D animation resources, and open up communication channels for leading excellent culture, with the help of Internet plus subject skill contest and new media platform for wide dissemination [8]. VR and AR interactive experience. In the era of intelligent media and the background of the meta universe, we should continue to promote the deep integration of VR/AR technology and animation, better inherit Chinese culture, and enhance cultural confidence. At the same time, we should cultivate students' independent learning ability and innovation ability, turn "knowledge" into "wisdom" [9], meet students' needs for intelligent learning, and promote students' lifelong learning and intelligent growth.

A variety of hybrid teaching based on intelligent classrooms and online platform micro course resources is a revolution in the traditional classroom teaching methods of teachers and students. It mainly solves the problem of organic integration of teaching scene, role and teaching scene in the three stages of "before class, during class and after class".

- (1) Pre class preview: the teacher will record the content of key and difficult points in each class, and the video of micro class will be introduced to the online teaching platform before class. The students will use the fragmented time to preview online knowledge points before class, which will cause students to think. The students will enter the class with questions, which will arouse students' interest in exploring problems, and help them grasp knowledge in multiple directions.
- (2) Guided learning in class, teachers adopt PBL problem oriented project-based classroom teaching, and the teaching mode of "flipped classroom" combined with "teaching while practicing, intensive teaching and more practice, combination of teaching and practice, and focusing on practice", giving full play to the favorable environment of the intelligent classroom to control the classroom progress, deeply tap knowledge, guide students to realize the understanding and absorption of film and television animation knowledge and work creation practice, complete classroom teaching and discussion, and assign homework after class.
- (3) After class guidance and expansion, students submit animation project works on the platform, and teachers submit online evaluation according to the works and learning situation, classify the common points of students' feedback, and conduct online discussion and hierarchical guidance according to the project situation through discussion groups, so that students can understand knowledge and skills more thoroughly and form a higher level of cognition.

5 Study Results

The film and television animation course is based on the intelligent classroom and online teaching platform for interactive hybrid teaching, with three dimensions of "teachers,

intelligent classroom and online platform, and students”, and the organic integration of three stages of “pre class, in class, and after class” [5]. Before the class, online learning was conducted in the form of SPOC through online teaching platform micro lesson videos, expanding resources, etc. During the class, interactive discussion was conducted in the intelligent classroom with the teaching mode of “flipped classroom” combining “practice while teaching, intensive teaching and more practice, combination of teaching and practice, and focusing on practice” [10]. After the class, animation homework was designed through interdisciplinary knowledge combined with professional frontier development. The multiple evaluation of intelligent classroom teaching effect adopts the “non-standard answer” assessment method, and increases the proportion of process assessment, covering multiple interactive communication activities such as questionnaire, extended learning, discussion, homework, etc. The creation of staged works in the mid-term examination is included in the assessment, and the proportion of comprehensive innovative works at the end of the period is not more than 50%.

The results show that: through the three stages three dimensional teaching, with students as the center, make full use of modern information technology records, analyze the combination of virtual and real space, thus increase the breadth and depth of students ‘knowledge, broaden the students’ vision, cultivate the students’ ability of independent thinking and mastery, compared with the traditional classroom teaching effect is better.

6 Conclusion

Through the research on intelligent classroom teaching of film and television animation courses, we will achieve all-round intelligent classroom teaching research, such as teaching goal orientation, content design, mode and method, and effect evaluation. We will focus on interdisciplinary and professional frontier development, strengthen the application of Chinese cultural elements in animation creation, strengthen the construction of a mixed teaching mode of interaction between teachers and students in intelligent classrooms and network platforms, and reform the diversified assessment methods of courses, Pay attention to knowledge transmission and thinking enlightenment, integrate the ideological and political education and mass entrepreneurship and innovation education of the curriculum, and achieve moral character shaping and innovation ability training. However, the depth and breadth of the research is limited. In the future, it is still necessary to continue to strengthen the in-depth integration research and practice of Chinese culture and animation curriculum construction, new technology and intelligent classroom. In order to better cultivate students’ ability to comprehensively use knowledge and film and television animation creation ability.

Acknowledgments. This paper is one of the milestones of the 2021 special project of the Chinese Higher Education Society of China, “Research on the Integration of Chinese Culture” into Animation Courses in Universities in the Context of “the Belt and Road” (21SZYB27).

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