

Teaching Construction of Animation Major Based On Mixed Education Teaching Reform

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Abstract: With the advent of the digital age, a revolution is quietly taking place in higher education. The rapid development of digital technology has brought about fundamental changes in the way knowledge is acquired. Blended education, as new education ecology guided by education informationization and centered on learners, has become an innovative mode of talent cultivation in the digital era. In the context of rapid development of mobile Internet, animation major should fully base on the inherent characteristics of animation major to actively explore the role of school-enterprise cooperation mode in the construction of hybrid teach curriculum system of animation major. In order to connect with industry, will introduce more and better cutting edge of knowledge and technology into teaching, push the latest industry developments to students, and take collaborative education enterprise as a breakthrough to construct the mixed education teaching reform, and actively carry out cooperation in various forms to adapt to "anytime, anywhere" way of learning, to promote the depth of the autonomous learning.

1. Introduction

The "Horizon" project launched by the American new media alliance, which is composed of world-renowned research institutions, universities and museums, predicts the development trend of cultural education and other aspects, as well as the development trend of emerging technologies in the field of education, and has a strong impact on the teaching of educational institutions at all levels. The horizon report points out that the main characteristics of higher education in the future are the methods of mixed teaching, such as measuring learning, mixed reality teaching model, adaptive learning, integration of resources across disciplines and institutions, and diffusion of teaching resources.

According to the latest statistics, there were 2,956 colleges and universities nationwide in 2019, most of them offer animation and related majors. Animation major as a relatively new college major in recent years, its market industry development is also changing with each passing day, technological innovation by leaps and bounds. The teaching of animation is also facing diversified development paths, and the mixed teaching reform is the major development direction of the education specialization now and in the future.

2. The Content of School-Enterprise Cooperation is Extensive

Animation major should take the core courses in the talent training program as the construction framework of blended teaching resources, and cooperate with enterprises to build relevant teaching resources. Guided by market demand and industry norms, experts with practical project experience in enterprises and industries will be a powerful supplement to teaching lecturers. Real enterprise projects into the classroom actively expand the practice case library and project library.

In order to promote the transformation of teaching mode and teaching method, animation major should start from the standardization of curriculum standards and put forward basic norms and requirements for curriculum teaching, which are also the basis of teaching management and curriculum evaluation. Introduce collaborative education enterprise projects and experts to teach, practice, and develop relevant assessment content accordingly. Curriculum assessment is not only the main means to reflect the teaching effect of curriculum, but also an important link to evaluate

the quality of school personnel training.

2.1 Project practice. Animation major and collaborative educational enterprises carry out scientific research projects cooperation. Animation major should pay attention to the introduction of real projects in the reform, and animation major should complete certain scientific research projects every year. Its production content can include two-dimensional animation, three-dimensional animation, architectural tour, mascot theme design, product display animation, and animation peripheral product design. Through school-enterprise cooperation, enterprises can transfer real projects to the animation major to complete the production. Relevant enterprises can appropriately reduce the labor cost, teachers can expand their professional horizon and keep up with the forefront of industry development, students can get the opportunity to participate in real projects to exercise, provide help for future employment, and also carry out talent reserve for the needs of enterprises, so that all stakeholders can develop and progress in benign mutual assistance. At the same time, its project process, industry norms and production experience can provide materials and cases for mixed teaching resources.

2.2 Case base construction. Case is an important part of teaching. Through the introduction of enterprise projects, form case resources to strengthen the synchronization of animation teaching and industry development, and to pay more attention to training students' practical skills and experience. Case base content should be updated regularly according to the course features. A complete case base can play a guiding and inheriting role in practical teaching, and also help enterprises to summarize and extract relevant experience of management, as well as provide students with independent learning, expand their learning means, and promote the sharing of successful cases. At the same time, it cultivates students' engineering consciousness, pioneering spirit, innovation ability, scientific style and comprehensive quality, consolidates and deepens the professional learning results, and promotes the transformation of knowledge into professional level and ability.

2.3 Teaching micro video construction. The construction of teaching micro-video resources is the key content of mixed education teaching reform. Teaching micro-video mainly characteristic is short and concise, which is different from the traditional form of video. The introduction of micro-video in teaching can reduce the cognitive load of students, improve the learning efficiency more effectively, and meet the needs of students for autonomous learning on mobile terminals. Teaching micro-video can be recorded, packaged and produced by enterprises with the lecturers as the main speaker. Play the advantages of both schools and enterprises to make micro-video quickly and effectively, and supply and update it timely according to the dynamic changes of the industry and students' feedback, so as to meet the needs of rapid promotion of blended teaching resources.

2.4 Question bank construction. The test questions are the important content of the course examination. According to the teaching content of mixed reform and the production practice of real projects in enterprises, formulate the relevant assessment content. To establish the reform idea of making curriculum assessment content according to the demands of the industry and the market and determining relevant teaching content according to the assessment content, to promote the cultivation of innovative, compound, high-quality and high-skilled professionals. According to the requirements of blended teaching reform, core courses shall develop multiple sets of examination papers, and experts from relevant enterprises shall jointly participate in the preparation of the questions, so as to ensure that the assessment content is at the forefront of the industry, and it can also test students' mastery of knowledge and skills as well as their understanding of industry norms and procedures in the production process of relevant projects.

2.5 Textbook construction. One of the purposes of blended teaching is to enable students to make full use of their spare time and study anywhere and anytime. Animation major can develop AR textbook jointly with cooperative education enterprises according to its own professional characteristics and advantages, considering the convenience and immediacy in the process of professional learning. The course content of animation major is mostly about making dynamic images. Without computer, students can scan the two-dimensional code in the AR series textbook through their mobile phones, intuitively feel the case effect in the textbook, and understand the action mode and key points of knowledge in the case.

2.6 SPOC resource construction. SPOC, that is small restricted online courses, is an online supplement to the classroom micro-video. SPOC lecturer is mainly composed of collaborative education enterprise has extensive experience in project experts, mainly in the online lectures, answer questions, guide, or in-depth enterprise live online, for students to share more project experience and professional skills, stimulate students' participation enthusiasm, improve the students' horizons and expand their knowledge, eventually forming SPOC lecture video, Q&A collection of teaching resources, etc.

2.7 Resource package promotion and follow-up development and update. Through cooperation with collaborative education enterprises, the teaching micro-video resources, case resources and other AR textbooks, material databases and other supporting resources formed by the mixed education and teaching reform are constantly updated to form a course library and resource package module that can be copied, accumulated and promoted.

3. General Guarantee for Resource Construction

In the construction process of animation major for many years, it should have accumulated first-hand experience in online education market, accumulated strong video image production ability and grasp the dynamics of the industry. Animation majors in colleges and universities generally have rich cooperation experience with enterprises. In many years of professional construction process, accumulated a large number of front-line teaching experience and practical ability. On the basis of clear training objectives and graduation requirements, professional ability indicators can be refined and decomposed into courses, projects at all levels and practical links according to the reverse design principle, so as to form a course system structure with clear logical links. At the same time, it can further strengthen the integrated internal daily teaching organization, operation and management in the whole process and all aspects of "teaching, learning, management, insurance and evaluation", and continuously improve the overall quality of teaching management team.

By cooperating with collaborative education enterprises, we can continuously enrich and expand the expert database, absorb visiting professors from universities and industry experts, and build an interdisciplinary faculty with industry characteristics. We should encourage scientific research and teaching research, encourage further training, academic exchanges and provide relevant policy support and beneficial help to train young teachers, to help teachers continuously improve their professional ability, so that professional teachers can achieve good development and results in many aspects.

Animation majors generally set up various studios. Studios are good at introducing real projects of collaborative education enterprises into teaching and practice, and combine them closely with practical courses, paying attention to giving students opportunities to participate in real projects and training students' practical skills.

We should strengthen international cooperation and enhance our capacity for international exchanges and practice. By making practical communication international cooperation projects, with other colleges and universities set up the mechanism of the exchange students abroad, not only make the students get a lot of ascension on the innovation spirit, practice ability and quality, but also make them learn about the foreign cultures through project communication awareness, which improved the language application ability, optimized the learning effect, understand the latest industry trends and master the cutting-edge expertise, expanded the international field of vision at the same time, laid a certain foundation for future employment and entrepreneurship.

4. Strong Support of Hardware and Software Environment

Professional recording studio, equipped with projection equipment, whiteboard, sound, mixer and teaching software and other hardware facilities, can fully meet the teachers' requirements of teaching micro-video real scene shooting and computer recording screen. Multimedia classrooms, equipped with multimedia computers, provide Internet access and network security protection

system; can meet the needs of teachers to use modern educational technology to carry out professional teaching and recording teaching micro-video resources. Animation majors can generally build laboratories in the direction of two-dimensional animation, three-dimensional animation, 3D printing and virtual reality, which can fully meet the overall needs of teachers to carry out professional teaching with modern educational technologies.

4.1 The 3d animation lab is mainly responsible for the experimental teaching of 3d modeling, 3d rendering, 3d animation and other professional courses, including scanner, printer, LCD digital screen, video display table, network camera, SLR camera and other equipment, as well as Maya, Zbrush, Lumion, Mudbox and other animation production software. It can work with educational enterprises to complete real projects such as 3D animation short film, architectural tour animation, product display animation and 3D art design, and form the accumulation of relevant teaching resources.

4.2 The 2d animation lab is mainly responsible for experimental teaching of specialized courses such as lens design and animation motion rules, including scanners, printers, LCD digital screens, video display tables, network camera, SLR cameras and other equipment, as well as Flash, Photoshop, Premiere and other animation production software. It can work with educational enterprises to jointly complete MG animation, picture book design, two-dimensional animation short film, animation modeling design, commercial illustration design, oil painting creation and other real projects, and form the accumulation of relevant teaching resources.

4.3 The post synthesis laboratory can undertake the experimental teaching of special Effects for film and television, animation post synthesis and other professional courses, including professional workstation, monitor, projector, debugging system, mixer, LCD TV and other equipment, as well as Adobe After Effects, Adobe Premiere, Autodesk Maya, 3ds Max, Nuke and other production software.

4.4 Animation peripheral design laboratory, mainly responsible for the art foundation, animation peripheral design and other professional courses of experimental teaching, including electrical kiln, drying box, glazing room, drawing machine, band saw machine, drilling and milling machine, air pump and all kinds of power tools and other equipment, as well as Zbrush, Illustrator, Photoshop, KeyShot and other production software. It can work with educational enterprises to complete real projects such as urban sculpture, pottery modeling, cultural and creative products, animation derivative products, and form the accumulation of relevant teaching resources.

4.5 The 3D printing teaching laboratory is mainly responsible for the experimental teaching of 3D design and printing, digital sculpture and other professional courses, including 3D scanner, color printer, ceramic printer, 3D printer, industrial 3D printer, high-configuration PC and other equipment, as well as Autodesk 3D MAX, Autodesk Maya, Zbrush and other software. It can work with educational enterprises to complete real projects such as 3D scanning modeling, 3D product printing, ceramic modeling design and printing, and form the accumulation of relevant teaching resources.

5. Conclusion

In the process of mixed education reform, "teaching students according to their aptitude" should be carried out based on student-centered and individual differences; In the process of professional construction, should take the initiative to adapt to the social development and technological progress, actively integrate the scientific and technological revolution into industrial transformation, deepen the professional reform, and carry out the reform in accordance with the basic principle of "education oriented, application-oriented"; Re-conceive and design the talent training mode and curriculum system that accord with the characteristics of mixed teaching mode, systematically explore the way of mixed education reform through optimizing and upgrading the talent training program, comprehensively optimize and upgrade the course content, and achieve the purpose of improving the learning effect.

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