

The Research and Practice of Mixed Teaching in Design Courses under the Concept of "New Five Senses"

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Abstract

Under the background of educational informatization, this paper puts forward the innovative concept of "new five senses in the field of education", aims at awakening and activating students' sense of vision, hearing, touch, smell and heart. At the same time, design courses will cooperate with industry, carry out project training, establish a service chain and incubator for college talents who with design majors, and jointly build social practice resources. Through school enterprise cooperation, we can achieve an open and independent network teaching environment and establish a shared resource database for online professional teaching.

Keywords

New five senses; Design courses; Mixed teaching; Practice strategy.

1. Research Background of Design Hybrid Curriculum

1.1. Analysis on the Situation of Implementation of Mixed Teaching

In recent years, the research results on Hybrid Teaching in China are very rich. In the journal paper database of China National Knowledge Infrastructure, 345 articles are published on core journals, which includes 179 papers has published in CSSCI. These articles can be retrieved with the theme of "hybrid teaching", "hybrid teaching" and "hybrid teaching mode". Among these achievements, about 60% of these researches are empirical researches on the field of design and practice of mixed teaching model. In addition, it also includes research on teachers' mixed teaching ability, learning analysis, theoretical basis of mixed teaching and so on. [1]

1.2. International Research Situation

The rising stage of online teaching: since the open curriculum movement (OCW) in 2001, Harvard University and MIT in the United States have set off a wave of online education courses. In China, mixed teaching is a concept which was first put forward by Professor Kekang He of Peking University at the 7th Global Chinese computer education application conference held in 2003. He believes that mixed teaching should not only give full play to the leading role of teachers, but also give full play to students' initiative, enthusiasm and creativity. [2] This is also the teaching characteristic of early mixed teaching, focusing on the core role of technology in the process of teaching and learning.

The development stage of research and practice: since the establishment of Hubei University Sharing Alliance network teaching platform, it has stimulated the change of mixed teaching methods. At this time, the three characteristics of mixed teaching of "fundamental reform and redesign of teaching mode" are put forward: A. from teacher-centered to student-centered; B. Enhance the interaction between students and students, students and teachers, students and content, students and external resources; C. Adopting the evaluation mechanism which combining formative evaluation and summative evaluation.

"Internet plus education" stage: In 2019, China's State Council issued two documents, China's educational modernization 2035 and the implementation opinions on the construction of first-class undergraduate courses, which gave new development to the concept of mixed teaching. According to the 48th CNNIC statistical report on the development of China's Internet, it shows China's Internet penetration rate has reached 71.6%, forming the largest digital society in the world. The main purpose of "Internet plus education" is to promote the deep integration of information technology and education and teaching. Therefore, the teaching of design hybrid practical courses must realize the diversification of teaching forms, the universality of teaching terminals, the fragmentation of knowledge learning, the task of teaching process and the three-dimensional evaluation system. [3]

1.3. Analysis on the Development Trend of Hybrid Curriculum in Design Field

Design courses focus on practice and application. Therefore, in the teaching system of introducing online courses, hybrid teaching can be carried out, in other words, in the classroom, we can not only just explain knowledge, but also focus on specific design applications and establish a new curriculum system. [4] Based on organizational behavior, this paper discusses the reform of mixed teaching model at the school level, and constructs and applies the mixed teaching readiness index in the university context. This kind of mixed teaching method organically combines online and offline learning methods, organically combines students' autonomous learning with teachers' key teaching, and organically combines learning, case design, discussion and evaluation. Students become independent learners and important participants, while teachers become guides and enlighteners to grasp the whole learning process. In addition, compared with the simple students' Online Autonomous Learning, this mixed teaching method is more systematic, which structure and links are more perfect.

2. Significance of Research

2.1. Building A Hybrid Efficient and Dynamic Classroom and Forming A Sustainable Teaching Model

Under the background of the deep integration of information technology and teaching, students' learning enthusiasm and participation are increased through all-round online and offline teaching organization and the application of various teaching means and methods.

2.2. Relying on the Studio Platform, to Form A Perfect Training Practice System

Through the case teaching guided by real projects and network resources, we can put theoretical knowledge into practical application work, and rely on the "studio" platform to strengthen students' understanding of the combination of theory and practice.

2.3. To Achieve A Teaching System That Meets the Needs of Employment and Walk in the Front of the Development of the Related Industry

The University and enterprises jointly formulate talent training programs and adjust professional positioning according to industry and market demand. According to the requirements of graduates' employment group, schools and enterprises jointly build a teaching system that meets the employment needs.

2.4. By Thinking about the Ideological and Political Construction of the Curriculum, It Can Help Form A Good Cultural Influence

Pay attention to ideological and political education in the curriculum. Under the collaborative innovation concept of social practice teaching, in the process of integrating practical cases, interpret the essence of Chinese traditional culture, deeply excavate intangible cultural heritage

culture in combination with representative cases, carry forward Chinese traditional culture and cultivate students' feelings of home and country.

3. Implementation Scheme of Mixed Curriculum for Design Specialty

3.1. Research Object

In the talent training scheme constructed by the Application-oriented Education Concept with Outcome Based Education (OBE) as the core, it puts forward multidimensional training objectives and requirements from ideology and morality, general knowledge, professional skills and professional norms to information literacy, communication and teamwork. The mixed teaching practice of design specialty courses is based on the long-term development of students' professional ability. In order to help students fully receive all kinds of teaching information, our research team puts forward the innovative concept of "new five senses of teaching" through in-depth teaching practice, and gives "awakening and activation" closely around the five senses of students' vision, hearing, touch, smell and heart. [5]The teaching content is divided into a series of project tasks, and the three levels of aims are listed, which concludes knowledge objectives, skill objectives and quality objectives, in order to cultivate the ability of design students to work independently and cooperatively, enhance students' interest in autonomous learning, and train design students to master work ideas and methods through autonomous learning, so as to effectively improve students' professional skills and the comprehensive quality of dealing with practical problems.

3.2. Innovation of Mixed Curriculum Design of Design Courses Conclusion

3.2.1. Visual Sense, Teaching System Visualization

Taking the lead in arranging the online course content and pay attention to its integration with information technology. In the process of teaching, combine art and technology, modern teaching means and professional connotation knowledge, so as to display the teaching content in an all-round way. Students can not only learn face-to-face with teachers in the traditional classroom, but also use information technology to enhance teacher-student interaction, student interaction, self-study and sharing, so as to improve students' autonomous learning ability.

3.2.2. Auditory Sense, Immersive Teaching Scene

Guided by practical cases, enrich classroom teaching content in multiple dimensions. Integrate the business-space-design practice project cases which made by the studio into the corresponding chapters to enrich the specific teaching contents. And conduct in-depth course research in the industry to realize the teaching objectives at different levels by project-oriented teaching.

3.2.3. Tactile Sensation, Diversified Teaching Platform

Curriculum innovation focuses on enriching students' feelings and promoting the long-term development of students' professional ability. Conduct in-depth industry research, take project-oriented teaching as the guidance, and realize the teaching objectives at different levels. Combined with the professional ability requirements of commercial space designers, the specific teaching contents of each chapter are summarized. It includes online teaching topics, chapter tests, comprehensive discussions, data sharing, final tests, training exercises, teaching feedback, etc.

3.2.4. Olfactory Sensation, International Professional Vision

Student centered, with clear problem orientation. Build a professional and curriculum development direction with international vision, interdisciplinary and interdisciplinary integration and development. Continuously analyze and summarize the annual teaching results, improve teaching methods and innovate practice in the whole teaching and research team, so

as to lead learning by competition. And timely incorporate the new cases in the process of teaching and research practice into the new teaching plan, especially make use of the network platform to make the radiation of innovative achievements wider.

3.2.5. Heart Feeling, Comprehensive Cultural Infiltration

Pay attention to ideological and political education in the curriculum. Through the collaborative innovation concept of social practice teaching, interpret the essence of traditional culture in the process of integrating practical cases, and deeply excavate intangible cultural heritage culture in combination with representative cases, so that students can fully feel it.

3.3. Mixed Teaching Practice Strategy of Design Courses

3.3.1. Clarify Professional Characteristics and Establish Curriculum System

A new concept of mixed courses of design major based on University Alliance: analysis of differences between objectives and students + online learning effect feedback + online and offline coordination + large-scale turnover. In the design course, learning, design, discussion and evaluation are organically combined, which solves the limitation of fixed time and place of traditional classroom teaching, and expands the time and space for design teachers and students to carry out teaching activities.

3.3.2. Deepen the Connotation of Curriculum and Optimize the Teaching Process

Problem oriented, firmly grasp the learners' thinking. The mixed teaching mode integrating online teaching can not only ensure the advantage of traditional teaching, but also realize remote real-time and non-real-time two-way interactive communication. Build a three-dimensional teaching resource system, subdivide MOOC knowledge points according to different professional needs, select different key points, optimize, replace, expand and increase, and reengineer courses by classification. Extensive learning + in-depth learning (online learning + offline comprehensive training), formulate diversified test and evaluation standards, respect the characteristics of design specialty and students' personality, pay attention to post skill evaluation and assessment of knowledge understanding and application ability, give full play to the guiding function and incentive function of evaluation, and promote the improvement of students' professional ability and innovation consciousness.

3.3.3. Multi-level Platform Support to Expand the Practice Path

Unify and improve the teaching organization and management, so as to establish the curriculum benchmark. Combined with the advantages of mobile teaching and school enterprise cooperation practice design project, the course teaching content can fully reflect the professional characteristics and promote students' employment and future career development.

3.3.4. Keep up with the Forefront of the Industry and Have An International Vision

All teachers in the team need to remain highly sensitive to the enterprise industry, timely integrate international cutting-edge knowledge and urgently needed post skills into curriculum projects and online courses, and the utilization and sharing of cross resources of different courses can timely expand students' horizons and enrich students' knowledge. The first mock exam is to promote students' self-learning consciousness and ability, and to design the sensitivity of the sense of smell. It also solves the traditional mode that teachers can only assist students' learning through classroom guidance.

3.3.5. Concludes Patriotism and Ideological and Political Education, and Carries Forward the National Culture

Mixed Teaching constructs a new relationship between teachers and students. In the process of mixed teaching, it not only retains the vivid face-to-face interaction scene between teachers and students in traditional teaching, but also can use the real-time and non-real-time

communication carried out by the network interactive platform. Through the intimacy of the relationship, the key points of knowledge in the design courses are related to the ideological and political elements. Through the poverty alleviation practice projects and the in-depth excavation of intangible cultural heritage, the traditional Chinese culture is imperceptibly promoted and the students' feelings of home and country are cultivated.

4. Conclusion

The formulation of teaching objectives of design mixed practical courses under the concept of "new five senses" is completed after in-depth course investigation, analysis and determination of students' quality, knowledge and ability requirements in art design. Its purpose is to enable design students to effectively master the skills and abilities required for design posts, understand the aesthetic standards of environmental design and international cutting-edge development trends, and be able to carry out relevant professional design practice independently. By changing the teaching concept, the new connotation of teaching demonstration can be excavated; Take advantage of the inter school curriculum group to jointly build and share high-quality resources; With the help of interdisciplinary curriculum group, a new model of curriculum teaching will be constructed; Innovating teaching practice with "new five senses" as the key means; Adopt multi-dimensional effect evaluation to ensure continuous improvement of teaching. Only by training design talents with scheme design ability and deepening design ability, certain Chinese traditional culture and diversified international vision, can we realize the sustainable development of professional ability and improve the comprehensive professional quality of design students when they go to work in the future.

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