

Research on Project-Based Teaching Practice of Visual Communication Design Software Courses in the Context of “Internet+”

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Abstract: With the advent of the “Internet+” era, teaching of visual communication design software courses faces new opportunities and challenges. Centering on project-based teaching methods, this paper explores their application in visual communication design software courses by leveraging teaching resources and technological advantages under the “Internet+” background. Through analyzing the effectiveness of project-based teaching in enhancing students’ ability to solve practical problems, it proposes specific teaching practice strategies and elaborates with real cases. The research results show that project-based teaching can effectively improve students’ learning interest, practical ability, and innovative capacity, providing useful references for the teaching reform of visual communication design software courses in the “Internet+” era.

Keywords: “Internet+”; Visual Communication Design; Software Courses; Project-Based Teaching

1. Introduction

In the “Internet+” era, the deep integration of information technology and education has brought unprecedented changes to teaching. As a highly practice-oriented discipline, visual communication design software courses should keep pace with the times and explore teaching models suitable for the new era. Project-based teaching, as a method guided by real projects, can effectively cultivate students’ practical abilities and innovative thinking, enabling them to better meet social needs. This paper aims to explore how to apply project-based teaching to visual communication design software courses in order to improve teaching quality and cultivate high-quality design professionals.

2. Current Situation of Visual Communication Design Software Course

Teaching in the “Internet+” Era

2.1 Lagging Teaching Content

With the rapid development of technology, new software and tools continue to emerge in the field of visual communication design. However, the content of visual communication design software courses in many universities is updated slowly and cannot reflect the latest industry trends in time. For example, textbooks used in some graphic design courses often lag behind industry development and fail to meet students’ needs for new knowledge. Some courses still focus on traditional software such as Photoshop and Illustrator, while paying little attention to emerging interaction design software and virtual reality (VR) design tools. This lag in content results in a disconnection between students’ acquired knowledge and actual market demands, making it difficult to meet society’s requirements for visual communication design talents [1].

2.2 Single Teaching Model

Traditional visual communication design software teaching often adopts the “teacher explanation–case demonstration–student imitation” model. This one-way knowledge transmission lacks interactivity and practicality, making it difficult to stimulate students’ interest and initiative. Under this model, students are often passive recipients of knowledge, lacking independent thinking and problem-solving abilities. In addition, due to the complexity of software technologies, the teaching process tends to be dull, easily frustrating students’ learning motivation and negatively affecting teaching outcomes [2].

2.3 Insufficient Practical Teaching

Visual communication design is a highly practical discipline, yet the current practice teaching links are insufficient. First, teachers tend to emphasize theory, giving students fewer opportunities for hands-on practice, leaving

them in a passive learning state [3]. Second, practice teaching is disconnected from social demands, and the skills learned in class cannot be directly applied to real work. Finally, practical teaching resources are limited, with a lack of real design projects and enterprise cooperation opportunities, preventing students from receiving comprehensive practical training.

3. Advantages of Project-Based Teaching under the Background of “Internet+”

3.1 Stimulating Students’ Interest in Learning

Project-based teaching is guided by real projects. In the process of participating in projects, students can perceive the practical application value of design, which stimulates their interest and enthusiasm for learning. For example, project-based teaching can be implemented through cooperation with enterprises on real design projects, enabling students to gain an in-depth understanding of market demands, apply their knowledge to solve real problems, and strengthen their sense of achievement in learning [4].

3.2 Cultivating Practical Ability and Innovative Thinking

Project-based teaching emphasizes autonomous learning and hands-on practice. Students are required to think independently and solve problems within the project, which helps cultivate their practical ability and innovative thinking [5]. During the implementation of projects, students are confronted with various complex design problems. Through teamwork and teacher guidance, they learn how to apply the software skills and design theories they have acquired to solve real problems, thus improving their comprehensive application ability.

3.3 Promoting Integration and Sharing of Teaching Resources

In the “Internet+” context, applying project-based teaching in visual communication design software courses not only enhances students’ interest in learning and practical ability but also effectively promotes the integration and sharing of teaching resources. As Xu Yang pointed out in his research, the deep integration of education and the Internet in the “Internet+” environment brings new opportunities for teaching, especially in art-related majors. The Internet’s vast resources and convenience

provide great support for teaching [6]. “Internet+” creates favorable conditions for the integration and sharing of teaching resources. Teachers can use online platforms to access abundant resources, such as online courses, design cases, and software tutorials, integrating them into project-based teaching to provide students with broader perspectives and deeper theoretical knowledge. Meanwhile, students can also make use of online platforms for autonomous learning and communication, broadening their learning channels and improving efficiency.

4. Project-Based Teaching Practice of Visual Communication Design Software Courses in the “Internet+” Era

4.1 Setting Teaching Objectives

In the “Internet+” era, the teaching objectives of visual communication design software courses should shift from traditional knowledge transmission to ability cultivation, focusing on practice, innovation, and teamwork [7]. Specifically, the objectives cover three aspects: knowledge and skills, abilities, and attitudes and values. The knowledge and skills objectives require students to master basic software operations and be proficient in design creation; the ability objectives, through project practice, aim to cultivate students’ problem-solving, innovative thinking, and teamwork abilities; the attitudes and values objectives guide students to establish correct design concepts, cultivate a passion for and responsibility toward their profession, and enhance professional literacy. These objectives are set based on the analysis of existing problems and are closely related to students’ future career needs.

4.2 Implementation Steps of Project-Based Teaching

The project-based teaching practice of visual communication design software courses requires careful design of project selection and implementation processes. Project selection should be closely tied to the characteristics and market needs of the “Internet+” era, focusing on design projects with practical application value and innovation, such as webpage design and mobile application interface design in cooperation with Internet enterprises. Project design should have clear objectives, defined tasks, and specific evaluation standards to ensure students progress in a structured manner [8].

The implementation process is divided into three stages: initiation, implementation, and summary evaluation. In the initiation stage, teachers introduce the project background, objectives, and requirements, organize students into groups, and assign tasks. Students conduct research, collect materials, and develop plans. In the implementation stage, students carry out design tasks according to their plans, while teachers provide guidance. Students report progress regularly and receive feedback and suggestions. In the summary evaluation stage, students complete the project, summarize their experience, and present their results. Teachers evaluate outcomes based on standards, while also encouraging self-evaluation and peer evaluation. This model allows students to learn and practice in real contexts, improving their practical, innovative, and teamwork abilities.

4.3 Integration and Utilization of Teaching Resources

In the “Internet+” era, project-based teaching practice for visual communication design software courses requires integrating both online and offline resources to enhance teaching effectiveness. Online, teachers can use platforms such as Coursera and edX to obtain high-quality resources, supporting autonomous, collaborative, and group learning. Communities and forums such as Zcool and Hukes provide students with design cases and platforms for exchange [9]. Offline, teachers can integrate resources from school libraries and laboratories, offering practice spaces and equipment support. Inviting enterprise experts and industry designers into classrooms for lectures and practical guidance further enriches the teaching process. This online-offline combined teaching model better integrates diverse resources, offering students richer learning experiences.

4.4 Construction of Teaching Evaluation System

The teaching evaluation system in project-based teaching practice of visual communication design software courses should emphasize a combination of formative and summative evaluations. The evaluation should comprehensively assess students’ performance during the project implementation process as well as the quality of project outcomes. For example, the evaluation of project outcomes can include creativity, aesthetics, functionality, and

practicality of the design works. Participation evaluation should focus on students’ enthusiasm, initiative, and teamwork ability during the implementation process. This evaluation method not only comprehensively reflects students’ learning processes and outcomes but also promotes their active participation and teamwork capabilities in projects. In addition, the evaluation subjects should be diversified, including teacher evaluation, student self-evaluation, group mutual evaluation, and enterprise mentor evaluation, to ensure the comprehensiveness and objectivity of the assessment. Through this comprehensive evaluation system, students’ learning enthusiasm can be better stimulated, helping them effectively regulate their learning process, gain a sense of achievement, enhance self-confidence, and cultivate a spirit of cooperation.

5. Case Analysis

5.1 Case Background

Taking the UI Design course of the Digital Media Art Design major at Weifang University of Science and Technology as an example, this course adopts a project-based teaching model in cooperation with Zhongxiang Qingdao Situ Co., Ltd. The project focuses on designing UI for new product launches, aiming to innovate interface design to attract users and enhance user experience. This cooperative model not only provides students with opportunities for practical experience but also enables them to directly participate in real corporate projects, thereby gaining a better understanding of market demands and industry standards. The course integrates high-quality teaching resources online through the “Internet+” platform and emphasizes project-based practical guidance offline, exploring the transformation of the UI design project-based teaching model in the new era. This combination of online and offline teaching not only enriches teaching resources but also improves flexibility and interactivity. Through this project-based teaching model, students can learn and master knowledge through practice, cultivate problem-solving abilities, and lay a solid foundation for their future career development [10].

5.2 Project Implementation Process

The project implementation process is divided into three stages. First, in the project initiation

stage, teachers and enterprise representatives jointly draft the project task book, clarifying design goals and requirements. Students are grouped to conduct project research, understand the latest UI design trends and user needs, and develop project plans. The purpose of this stage is to help students gain a clear understanding of the project, clarify task objectives, and at the same time cultivate their teamwork and market research abilities. Next, in the implementation stage, students carry out UI design according to the project plan, covering aspects such as interface layout, color matching, and interaction design. Teachers and enterprise representatives provide regular guidance and feedback, and students optimize their designs accordingly. This stage is the core of the entire project. Students combine theoretical knowledge with practical skills through hands-on experience to solve real-world problems while developing innovative thinking and problem-solving capabilities. Finally, in the project summary and evaluation stage, after completing the UI design project, students conduct project summaries and present results. Teachers and enterprise representatives evaluate students' project outcomes based on evaluation standards, while encouraging self-evaluation and group evaluation. This stage not only allows students to conduct a comprehensive review of the project but also cultivates their reflection and self-evaluation abilities. The characteristics of this project-based teaching model are significant—it is project-oriented, emphasizing the design of meaningful and challenging projects, enabling students to learn and master knowledge through practical operation. Such a teaching method helps foster students' problem-solving abilities

5.3 Project Outcomes and Reflections

Through this project-based teaching practice, students not only mastered the operation of UI design software but also improved their design thinking and innovative abilities. The project results were recognized by the enterprise, and some students' design works were adopted. During the project implementation process, students learned how to cooperate with enterprises, how to apply design theories to solve real-world problems, and enhanced their practical ability and professional literacy. This project-based teaching model allows students to train in real design projects, effectively

addressing many existing problems in the practical teaching of visual communication design, such as the overemphasis on theory, the disconnection between practice and social needs, and the limited practical teaching resources. Through in-depth cooperation with enterprises, students gain valuable practical experience, laying a solid foundation for their future careers. This teaching model not only enhances students' learning interest and engagement but also cultivates their teamwork spirit and innovative thinking.

6. Conclusion and Prospects

The "Internet+" era has brought new opportunities and challenges to the teaching reform of visual communication design software courses. Project-based teaching, as an effective teaching method, can effectively improve students' learning interest, practical ability, and innovative thinking, thereby cultivating high-quality design talents who can meet social needs. Based on the research and practice presented in this paper, we have summarized application strategies of project-based teaching in visual communication design software courses and verified its teaching effectiveness through real cases. The project-based teaching model emphasizes a practical, project-oriented approach that closely integrates theoretical knowledge with practical operations, enabling students to gradually master professional knowledge and skills during the completion of projects. This model not only stimulates students' learning enthusiasm but also cultivates their teamwork and problem-solving abilities. In the future, we will further optimize the project-based teaching model, strengthen in-depth cooperation with enterprises, and introduce more real design projects to provide students with broader practical platforms. At the same time, we will actively explore teaching innovations under the background of "Internet+," making full use of online resources and technological advantages to continuously promote the in-depth development of teaching reform in visual communication design software courses. In the teaching process, we will continue to adopt diverse teaching methods, such as online interactive platforms, group discussions, and practical projects, to enhance students' participation and interactivity. In addition, we will focus on cultivating students' innovative thinking and professional literacy, enabling them to better adapt to future market

demands.

Acknowledgments

2024 Guangdong Technology College "Quality Engineering" Higher Education Teaching Reform Project — "Teaching Reform and Practice of Visual Communication Design Software Courses in the New Form of 'Internet+' (Project No.: JXGG2024108); 2024 Guangdong Technology College "Quality Engineering" Curriculum Ideological and Political Reform Demonstration Course Project: "Creative Design Thinking and Methods"(Project No.: SFKC202420).

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