

RESEARCH ON CLASSROOM TEACHING REFORM OF "WEB DYNAMIC WEB DESIGN" BASED ON OBE CONCEPT UNDER THE BACKGROUND OF "CURRICULUM IDEOLOGY AND POLITICS+"

XiaoYin Yi^{1,2,*}, Qian Huang³

¹Chongqing Key Laboratory of Public Big Data Security Technology, Qijiang 401420, Chongqing, China.

²Chongqing College of Mobile Communication, Qijiang 401420, Chongqing, China.

³Chongqing College of Electronic Engineering, Shapingba 401331, Chongqing, China.

Corresponding Author: XiaoYin Yi, Email: 17323415956@189.cn

Abstract: In the process of teaching the course "Web Dynamic Web Design", we delve deeply into the integration of curriculum ideology and politics with the OBE (Outcome-Based Education) concept in various aspects such as course content, teaching methods, and teaching evaluation. Emphasizing the integration and development of ideological and political knowledge with the OBE concept in classroom teaching, we aim to construct experimental projects, skill points, and ideological and political elements for the "Web Dynamic Web Design" course based on the OBE concept under the background of "Curriculum Ideology and Politics+." This approach focuses on improving teaching methods and teaching quality, thereby enhancing the efficiency of the "Web Dynamic Web Design" classroom teaching.

Keywords: Curriculum Ideology and Politics; OBE Concept; Web Dynamic Web Design; Teaching Reform

1 INTRODUCTION

With the reform and development of the education sector, traditional teaching methods can no longer meet the needs of the "Web Dynamic Web Design" classroom. In higher education institutions, one of the core courses for computer science majors is dynamic web design. Through the study of technical courses, students can gain flexible mastery of website development and web design. The content that needs to be mastered in this course includes database application management, static web design, PHP, programming language design, ASP, and JSP, among others [1]. These topics are quite challenging and the learning content can be rather tedious. If teachers cannot inspire students' initiative to learn, students will be unable to study efficiently. Additionally, most students have strong practical skills when learning technical courses but lack a solid understanding of theoretical knowledge, leading to a lack of interest in professional knowledge acquisition. Based on this, this paper will study the classroom teaching reform of "Web Dynamic Web Design" under the background of "Curriculum Ideology and Politics+" based on the OBE concept, aiming to stimulate students' interest in learning and better integrate them into the classroom.

2 THE MEANING AND GOALS OF OBE CONCEPT AND CURRICULUM REFORMS

2.1 Overview of the OBE Concept

The OBE concept mainly refers to outcome-based education. In the process of student education and training, targeted teaching designs and plans are developed according to the students' learning content, enabling students to acquire certain abilities based on course requirements. Additionally, the OBE concept constructs the curriculum system according to objectives and designs expected assessments to ensure that the entire learning process meets the anticipated standards. These standards primarily include two core elements: one is setting learning goals, and the other is designing reasonable classroom content to motivate students to complete the guidance, design, and explanation of classroom knowledge [2, 3]. The teaching content designed under the OBE concept does not focus on students' attitudes towards learning but rather on enabling students to learn how to flexibly apply knowledge. This approach breaks through the traditional education model that emphasizes the knowledge imparted by teachers alone, ensuring that students can proficiently apply their skills to solve problems after graduation.

2.2 Connotation and Objectives of Curriculum Reform

2.2.1 Connotation

Under the background of curriculum ideological and political education, influenced by the OBE (Outcome-Based Education) concept, the fundamental task of the "Web Dynamic Page Design" course is to cultivate socialist new youth with both ability and political integrity. The entire course teaching is a systematic project, involving the cultivation of computer science professionals and the tradition of socialist core values. Under the "Curriculum Ideological and Political +" background, the core of professional course teaching based on the OBE concept is the transmission of professional knowledge. It deeply explores the ideological and political elements within the connotation of the "Web

Dynamic Page Design" course, and transforms social responsibility, moral education, innovation ability, and theoretical awareness into students' own qualities and professional skills during the course teaching.

2.2.2 Goal

Cultivate high-quality Web development talents: Through the reform of the "Web Dynamic Page Design" course, the aim is to enable students to grasp the basic principles and technologies of dynamic web design and development, to independently complete the design and development of Web applications, and to become high-quality professionals who meet the needs of society.

Enhance students' comprehensive qualities and professional abilities: The course reform not only focuses on the cultivation of students' professional skills but also emphasizes the improvement of their comprehensive qualities, including innovation ability, teamwork ability, professional ethics, and social responsibility. By integrating ideological and political education with professional education, the goal is to cultivate well-rounded talents with both ability and political integrity.

Promote students' self-directed learning and lifelong learning abilities: The curriculum reform based on the OBE concept emphasizes the cultivation of students' self-directed learning ability and lifelong learning awareness. Through clear learning objectives and diversified teaching methods, the aim is to stimulate students' interest and initiative in learning, enabling them to maintain continuous learning and development in an ever-changing technological environment.

Achieve continuous improvement in teaching quality: Through a scientific evaluation system and a continuous teaching improvement mechanism, the goal is to constantly optimize teaching content and methods, ensuring a steady improvement in teaching quality. By gathering student feedback and reflecting on teaching practices, timely adjustments and improvements to teaching strategies are made to ensure the effective achievement of teaching objectives.

3 THE IMPORTANCE OF THE "WEB DYNAMIC PAGE DESIGN" CLASSROOM UNDER THE BACKGROUND OF "CURRICULUM IDEOLOGICAL AND POLITICAL +"

Integrating curriculum ideological and political education into the "Web Dynamic Page Design" course can help students establish correct values and professional ethics. Through ideological and political education, students can not only master professional knowledge and skills but also follow the core values of socialism in their future careers, possessing a high sense of social responsibility and professional conduct. This is of great significance for cultivating technical talents who are socially responsible and morally upright.

3.1 Contribute to the Improvement of Students' Code of Conduct

Under the background of "Curriculum Ideological and Political +", carrying out teaching reforms in the "Web Dynamic Page Design" classroom includes enhancing the understanding of the core values of socialism in the teaching design. This aims to cultivate students to become socialist builders with both professional ethics and professional competence. Additionally, in the "Web Dynamic Page Design" classroom, the focus is on improving students' professional ethics, helping them establish good behavior standards, and increasing their sense of social responsibility, which is of significant importance and plays a crucial role.

3.2 Inspire Patriotic Awareness to Enhance Students' Work Ethic

We are in an era of rapid scientific and technological development. Through ideological and political education, students can combine their personal career development with national interests, providing support and assistance for scientific and technological progress. "Web Dynamic Page Design" engineers need to follow theoretical ethical standards. In classroom teaching, it is essential to strengthen ethical principles, stimulate students' innovative awareness and thinking, and actively encourage and support students in mastering new technologies, thereby contributing to the development of the "Web Dynamic Page Design" industry. Additionally, under the guidance of teachers, students can flexibly master professional knowledge, consciously practice the core values of socialism, comply with laws and regulations, and enhance their professional ethics [4].

3.3 Promoting the Development Of Students' Comprehensive Abilities

Through the integration of "Curriculum Ideological and Political Education+" and OBE concept, the curriculum reform not only focuses on students' technical abilities but also pays attention to their comprehensive qualities, such as teamwork, innovative thinking, and social adaptability. Such teaching reform can help students better adapt to the future professional environment and become versatile talents with comprehensive abilities.

3.4 Meeting the Societal Demand for High-Quality Talents

There is a growing demand in society for versatile and high-quality professionals. The curriculum reform under the "Curriculum Ideological and Political Education+" framework, based on the OBE concept, can cultivate talents who not

only possess solid professional skills but also have strong ideological and political qualities, better meeting the needs of society.

4 THE "WEB DYNAMIC PAGE DESIGN" CLASSROOM TEACHING MODEL BASED ON THE OBE CONCEPT UNDER THE BACKGROUND OF "CURRICULUM IDEOLOGICAL AND POLITICAL +"

Currently, in computer science courses, "Web Dynamic Page Design" is receiving increasing attention. How to integrate professional education with curriculum ideological and political education and the OBE concept has become a question that higher education educators need to consider. The traditional "Web Dynamic Page Design" classroom teaching model is a cramming style, where the teacher dominates the class, explains professional knowledge, and analyzes the entire process of professional practice. This results in insufficient exchange of professional knowledge and practical operation by students, affecting the quality and effectiveness of teaching. Therefore, universities need to reform the "Web Dynamic Page Design" classroom teaching model based on the OBE concept under the background of "Curriculum Ideological and Political +." This reform aims to enhance students' professional abilities, allow students to better understand the current international dynamics of "Web Dynamic Page Design" technology, and improve their ability to conduct cross-cultural technical exchanges. In this way, students can better adapt to the realistic needs of "Web Dynamic Page Design" in the context of globalization, creating a classroom teaching model that more closely aligns with the development of the current era, as shown in Table 1.

Table 1 The "Curriculum Ideological and Political +" Classroom Teaching Model Based on the OBE Concept

Course Flow	teaching session	Main activities		Curriculum Civics and OBE Conceptual Strategies
		teacher	student	
Guided preparation	Pre-teaching	Selection of "guided learning" cases based on students' realities	Preview the content of the lesson	In-depth analysis of the actual course content and selection of practical cases
	Self-learning	Theoretical instruction for students	Develop an understanding of specialized theoretical knowledge	Improve students' independent learning ability
Learning Interaction	Cooperative Inquiry	Publishing Practice Assignments	Sort out task characteristics and work with group members to complete practical tasks	Improve students' ability of solidarity and cooperation and practical ability
	Guided Training	Examining the results of practice for evaluation and feedback	Completing practical tasks, reviewing and reflecting	Flexibly apply professional knowledge to practice and improve comprehensive ability

5 ISSUES IN THE CLASSROOM TEACHING OF "WEB DYNAMIC WEB DESIGN" UNDER THE BACKGROUND OF "COURSE IDEOLOGY AND POLITICS PLUS"

5.1 The Teaching Model is Monotonous and Lacks Primary and Secondary Teaching Coordination

According to relevant information, students can play an important role in the explanation of classroom knowledge and improve their ability to discern knowledge in their professional fields by exploring and previewing the content before studying specialized knowledge. If students have a basic understanding of professional knowledge before taking the "Web Dynamic Web Design" course, they can better identify the difficult points in the course and delve deeper into them after the teacher's systematic explanation in class, thereby enhancing the effectiveness of the course teaching [5, 6]. However, at present, the teaching methods for the "Web Dynamic Web Design" course still primarily rely on traditional lectures by professional teachers, supplemented by PPT or chalkboard writing. Under this traditional educational approach, students do not explore the knowledge outside of class, making it difficult for them to investigate professional knowledge from multiple angles and comprehensively during the teacher's lecture, and thus, they cannot internalize the knowledge. Therefore, using a single traditional educational method in the "Web Dynamic Web Design" classroom cannot cultivate students' innovative thinking and practical abilities.

5.2 Traditional Course Content is Outdated, and the Development of Ideological and Political Textbooks is Insufficient

The traditional "Web Dynamic Web Design" course content is outdated, and the development of ideological and political textbooks is insufficient, which is mainly reflected in two aspects. On one hand, there is a lack of research on new technologies in the professional courses; on the other hand, the current textbooks do not delve deeply into political elements. As an important medium for students to learn professional skills, the integration of ideological and political

elements in the "Web Dynamic Web Design" textbook can better achieve the goal of efficient ideological and political education. However, the current "Web Dynamic Web Design" textbook does not contain rich ideological and political educational value, and the teaching does not resonate with students' professional identity [7].

5.3 Teachers have a Weak Awareness of Ideological and Political Education Reform

In the context of ideological and political education, the main goal of teaching the "Web Dynamic Web Design" course is to stimulate the ideological and political functions within professional technical courses and to achieve a response and practice of the ideological and political knowledge system and values in the professional course. Whether the ideological and political awareness of professional technical course teachers can meet the expected standards is primarily reflected in the greatest difficulty of ideological and political teaching reform in the "Web Dynamic Web Design" professional course, which is how to integrate ideological and political content with professional knowledge in "Web Dynamic Web Design." Most professional technical teachers focus on practical teaching while neglecting theoretical teaching during the teaching process. This issue leads to a weak awareness of ideological and political education reform among teachers, making it difficult to promote the development of "Web Dynamic Web Design" classroom teaching under the "curriculum-based ideological and political education" framework [8].

6 PATHWAYS FOR REFORMING CLASSROOM TEACHING OF "WEB DYNAMIC WEB DESIGN" BASED ON THE OBE CONCEPT

6.1 Setting Instructional Goals and Integrating Content

The "Web Dynamic Web Design" course needs to emphasize the cultivation of students' innovation, practical, communication skills, and values on the basis of traditional teaching, enabling students to possess good professional qualities. Throughout the content of the "Web Dynamic Web Design" course, teaching needs to take the software development life cycle as the main thread, fully integrating the requirements of ideological and political education, and carrying out project management, team collaboration, and web dynamic web design project practice [9]. This ensures that students not only master the professional knowledge of "Web Dynamic Web Design" but also enhance their sense of social responsibility and moral sense. Figure 1 shows the web dynamic web design under the OBE concept.

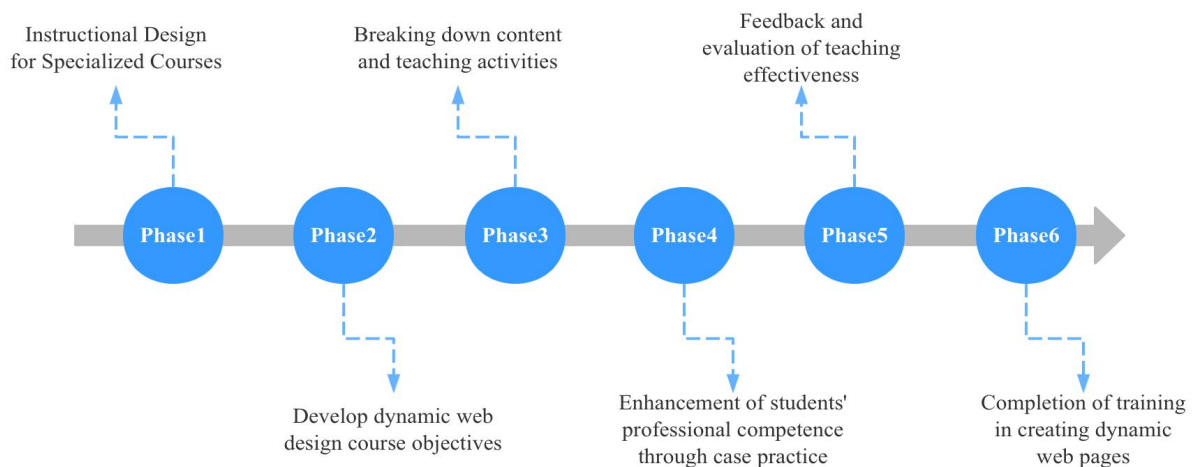


Figure 1 OBE Concept of Web Dynamic Web Design

6.2 Design of Teaching Methods

In the teaching reform of the "Web Dynamic Web Design" course based on the OBE concept, it is necessary to emphasize the cultivation of students' professional abilities. According to the characteristics of the course, diverse teaching reflections should be used to help students improve their ideological and political literacy. Teachers can design the teaching of the "Web Dynamic Web Design" course from the following aspects:

Case Method: Analyze typical "Web Dynamic Web Design" engineering cases in the classroom. This allows students to think about the social responsibilities they will bear in their profession after entering the workforce, thereby improving their judgment and decision-making abilities.

Discussion and Debate: Actively organize students to discuss hot topics in the field of "Web Dynamic Web Design" and use databases to summarize user needs and behaviors. This enhances students' communication skills and fosters critical thinking.

Role-Playing: Have students simulate roles to understand the principles that "Web Dynamic Web Design" engineers need to follow in their work through role-playing.

Flipped Classroom: Transform the traditional teaching model into a student-centered teaching model. Students can use online resources to complete pre-class preparation. Those with strong learning abilities can leverage online courses on "Web Dynamic Web Design" for more in-depth study.

Project-Driven Teaching: In software engineering projects, students naturally encounter ideological and political elements within "Web Dynamic Web Design" issues. This helps students enhance their technical abilities while improving their ideological and political literacy.

Feedback and Evaluation: Continuously evaluate students' ideological and political literacy and professional ethics in "Web Dynamic Web Design." Timely evaluations help students make necessary improvements.

6.3 Hands-on Project Design for "Dynamic Web Design"

Taking the HTML form items in the web front end as an example, it is necessary to teach how to use the built-in request object in the backend to obtain the corresponding data entered by the user through the `getParameter()` method. During practical operations, most students are unable to complete the tasks, and some even do not understand the entire operation process. In this context, teachers can use user login or registration as a case study, explaining the process through images or demonstrations to give students a preliminary understanding of the entire operation. This approach can stimulate students' interest in learning, encouraging them to actively participate in practice and learn to use the request built-in object, enabling users to enter data in the HTML form.

6.4 Post-course Analysis and Evaluation

The reform of the "Web Dynamic Web Design" course teaching based on the OBE concept mainly focuses on the achievement of students' professional abilities. After the teacher's guidance in the classroom, students should still be able to independently complete "Web Dynamic Web Design" projects. In the post-class evaluation, the teaching objectives and content are closely connected to ensure the accuracy of the evaluation data.

7 CONCLUSION

In summary, both ideological and political education and the OBE concept have certain feasibility and necessity in the teaching of the "Web Dynamic Web Design" course. Integrating these two concepts into the curriculum for teaching reform, revising the course teaching process, and clarifying learning objectives allow teachers to design targeted teaching strategies. This approach enables students to possess not only good professional ethics but also professional technical skills, meeting the societal demand for versatile talents.

COMPETING INTERESTS

The authors have no relevant financial or non-financial interests to disclose.

FUNDING

This article is supported by the teaching reform research project of Chongqing College of Mobile Communication titled "Web Dynamic Web Page Design" (Project No. 23JG2138).

REFERENCES

- [1] Cheng Linlin. Research and Practice on SPOC Blended Teaching Model Combined with Ideological and Political Education Concepts: A Case Study of "Web Design" Course in Higher Vocational Software Major. *Journal of Guangdong Communication Polytechnic*, 2023, 22(04): 98-102.
- [2] Yang Zhiqin. Research on Teaching Strategy Optimization of "Web Design" Course under OBE Education Concept: A Case Study of Yunnan University School of Tourism and Culture. *Wireless Internet Technology*, 2020, 17(03): 98-99.
- [3] Denicolo V, Polo M. Duplicative research, mergers and innovation. *Economics Letters*, 2018, 166: 56-59.
- [4] Li Shengyong. Exploration of Teaching Reform of "HTML5+CSS3 Web Design" Course Based on OBE Concept. *Journal of Yangtze River Engineering Vocational and Technical College*, 2022, 39(02): 39-42+62.
- [5] Zhu Jinjing. Exploration of Classroom Teaching Reform of "HTML5+CSS3 Web Design" Based on CDIO-OBE. *Contemporary Education Practice and Teaching Research*, 2020, (13): 114-115.
- [6] Xian Guoming, Ming Xiunan. Cross broad merger and innovation of acquiring firms. *Journal of Financial Research*, 2018(8): 155- 171.
- [7] Zhao Huiling, Li Bo, Bao Jie. Research and Practice on Teaching Reform of Higher Vocational Website Design Course Based on OBE Concept under New Engineering Background. *Heilongjiang Education (Higher Education Research and Evaluation)*, 2021, (03): 39-41.
- [8] Yan Xiaoyong, Sun Han, Hu Xiayun, et al. Teaching Research on Task-Driven Website Principles and Design Course under OBE Concept. *Software Guide*, 2023, 22(04): 198-202.

- [9] Lu Xiqiao. Exploration of Teaching Reform of "Web Page Production" Course in Higher Vocational Colleges under New Curriculum Reform. *Computer Knowledge and Technology*, 2022, 18(26): 144-146+150.
- [10] Huang Qiang, Li Rong. Exploration and Practice of Teaching Reform of Java Website Development Course Based on OBE Concept. *Journal of Guangdong Agricultural and Commercial Vocational Technology College*, 2022, 38(01): 66-70.