

Research on teaching reform of “web front end development” course based on OBE concept

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Abstract: Web front-end development technology is a practical and technical course, and it is also a necessary skill for students to go to work. Combined with the development in recent years, we can see that the demand for web front-end development talents is increasing, and higher requirements are put forward for their professional ability. Teachers need to actively carry out teaching reform, introduce the concept of OBE into the web front-end development technology course, set course objectives, optimize teaching content, and implement results oriented teaching. It is of great help to improve the quality of teaching. However, in the actual teaching, the guiding role of this concept has not been fully utilized, making the teaching effect still have great room for improvement. Based on this, this paper explores the teaching reform of “web front-end development” course based on OBE concept, aiming to discuss the teaching reform strategy with the majority of colleagues and improve the comprehensive ability of students.

Key words: OBE concept; Web front end development; Teaching reform; Higher Vocational Colleges

In recent years, with the rapid development of Internet technology, the degree of globalization is getting higher and higher, and the degree of information sharing has reached a new peak, which has changed people’s way of life and work. What follows is the demand for front-end development talents of the website, which makes the talent training work in Colleges and universities face new challenges. “Web front-end development” as an important course to cultivate students’ ability of Web front-end development, its importance is self-evident. However, with the progress of information technology, some problems have been exposed in the teaching work, which requires teachers to explore a new teaching mode to improve students’ professional skills. Therefore, it is of great practical significance to explore the teaching reform of “web front end development” course based on OBE concept.

1. Analysis of education mode under the concept of OBE

OBE idea advocates the idea of building a curriculum system based on results, students and reverse thinking, which first appeared in the United States and Australia in the 1980s. Under the concept of OBE, how students learn is more important than what they ultimately learn, which fully reflects the concept of results oriented. For teachers, to carry out teaching based on OBE concept, more attention should be paid to the following question: what should students ultimately gain through learning? Why should students get these gains? How to innovate the teaching content and mode to help them achieve these gains? In short, the teaching work under the OBE concept requires teachers to do enough lesson preparation work, have a clear understanding of the students’ final professional ability and the skill level they should achieve, and can find appropriate teaching programs to achieve the expected teaching goals.

OBE is an education mode oriented to the needs of the industry and focusing on the cultivation of students’ vocational skills. Teachers need to fully analyze the teaching needs, conduct a comprehensive analysis of skills training, industry post needs, and build a new curriculum system guided by achievements and professional abilities. It is precisely because of this feature that higher vocational colleges apply the OBE concept to the teaching reform of the “web front-end development” course, which can be combined with the requirements of students’ Graduation ability as the goal of teaching, which is of great help to improve the quality of talent training, and can also promote the development of the teaching reform of the “web front-end development” course.

2. Analysis of the current situation of the teaching of “web front end development” course

The talent training work of higher vocational colleges needs to combine the development needs of local enterprises and cultivate practical and technical talents. This requires higher vocational colleges to continuously innovate the teaching mode of “web front-end development” course guided by the talent market, so as to ensure that the teaching content and talent training direction closely follow the needs of enterprises. However, with the rapid development of the computer field, the industry has put forward higher requirements for talents. At the same time, with the promotion and popularization of OBE concept, many problems have been exposed in teaching work, affecting the improvement of teaching quality.

First of all, in terms of teaching objectives and models, many teachers do not pay attention to depth, but pay more attention to the selective design of teaching content according to the requirements of the examination. In this way, there will be a lot of content of “mastering, understanding and understanding” in teaching, which does not pay enough attention to the cultivation of students’ professional ability. The singleness of teaching mode is also a major factor leading to the deviation of teaching objectives. For example, some teachers in the classroom are self-centered and fail to mobilize the enthusiasm and initiative of students, which leads to their often passive acceptance of knowledge and also affects the formation and improvement of students’ professional ability.

Secondly, in terms of teaching content, the course “web front-end development” includes the basic knowledge of front-end development such as HTML, CSS, JavaScript, jQuery, etc., but there are few cutting-edge front-end framework technologies. In addition, the degree of convergence between web courses is not enough, and there are relatively few teaching cases of front-end and back-end interactive development, resulting in the lag of teaching content. Under such a teaching mode, the development skills mastered by graduates are not

practical, and it is even difficult to transform the knowledge learned into application ability.

Finally, in terms of teaching evaluation, some higher vocational colleges still use the traditional assessment mode, which is supplemented by classroom performance and dominated by written examination, and lack of judgment on the formation of students' ability and level. Affected by this, many teachers of the "web front-end development" course will adhere to the "examination oriented" teaching idea, while students will think that listening carefully and reviewing well can reach the standard, which will affect the formation of students' professional ability and is not conducive to solving the problem of the mismatch between teaching direction and market demand.

3. Strategy of reforming the course of "web front end development" based on OBE concept

3.1 Do a good job in the top-level design of the course and clarify the teaching objectives

Under the concept of OBE, teachers of "web front-end development" course in higher vocational colleges can conduct in-depth research on students and related enterprises from the school orientation, industry development needs and enterprise employment standards. In these preliminary preparations, teachers can comprehensively analyze the survey results and talent training programs, master the professional skills that students should master and the level they should reach after graduation, reasonably position and optimize the teaching objectives, change the previous situation of only focusing on explaining professional knowledge, and focus on cultivating students' professional ability. For example, in view of the lack of cutting-edge front-end framework technologies such as HTML, CSS, JavaScript and jQuery mentioned above, teachers can integrate Web page development content, and require students to master at least one of the current popular front-end framework technologies. On this basis, students are encouraged to ask teachers to learn more new technologies and methods by querying information. In short, under the concept of OBE, teachers need to focus on the formation and improvement of professional skills according to students' professional development needs, and position the teaching goal of each class on the ability training, so as to achieve the purpose of teaching reform.

3.2 Reform teaching content around ability training

Combined with the OBE teaching philosophy, teachers of the "web front end development" course need to promote the formation and improvement of students' professional ability according to the changes of social needs. In this regard, teachers can make full use of the educational resources in the school enterprise cooperation, constantly optimize the teaching content, introduce the real development projects of enterprises, and achieve the goal of cultivating students' professional ability. For example, when guiding students to explore the application of the web front-end framework, teachers can take the real case of the enterprise as the teaching content to fully connect classroom teaching with the actual needs of the society. This can not only complete the basic teaching tasks, but also exercise students' professional ability. Compared with the traditional teaching content, the application of real cases is easier to promote the improvement of students' ability. In addition, teachers can consciously design some comprehensive inquiry content. For example, with the help of the combination of old and new knowledge, integrate and expand the relevant teaching content, establish a perfect curriculum system, let students establish a knowledge framework in their brain, find the links between various parts of knowledge, help them to achieve flexible application when developing websites, and transform knowledge into application ability, so as to achieve the goal of teaching reform based on OBE.

3.3 Promote the improvement of students' ability and reform the teaching mode

Teaching mode is the key content of teaching reform, which is related to the quality of talent training. Under the concept of OBE, teachers of the "web front-end development" course need to focus on exploring how to actively innovate the teaching mode around the demand of improving ability.

1. invite the front-line web front-end development engineer of the enterprise to explain some practical contents to the students, change the mode based on theoretical knowledge, and enhance the practicability of classroom teaching content.

2. give full play to the advantages of information-based teaching equipment, introduce high-quality online learning resources, and meet the personalized growth needs of students. With the integration of information technology, teachers of this course can design more diversified teaching modes, such as introducing micro class video, constructing online and offline hybrid teaching mode, etc., to provide students with rich learning materials, and fully participate in the teaching work, which is conducive to divergent students' thinking and promote the improvement of their comprehensive ability. The introduction of information technology conforms to the characteristics of the "web front-end development" course, gives full play to the flexibility and convenience of information technology, promotes the formation and improvement of students' comprehensive ability, and is highly consistent with the teaching reform under the concept of OBE.

3. introduce highly interactive teaching modes, such as project-based teaching method, group cooperation teaching method, etc., and use micro class video to realize interaction with students before and after class. For example, the application of micro lecture in pre class preview can help students check the preview effect with the help of online learning materials and online tests; The application in the after-school link can help students consolidate and expand their ability by arranging group inquiry projects. For such a practical and technical course as "web front-end development", enhancing the frequency of interaction between teachers and students is the key link to promote students' ability. Therefore, to reform the course based on the OBE concept, teachers need to pay attention to the frequency of classroom interaction, so as to highlight the dominant position of students and develop their ability to acquire knowledge independently.

Taking project teaching as an example, teachers should follow the principle of OBE concept, adopt the "intermittent" and "step-by-step" teaching mode, let students learn to repair the breakpoints between knowledge points, and organically integrate cases with the help of project-based teaching. Declarative low-level knowledge in textbooks can be used as an element in teaching cases, and students can also be guided to learn autonomously in projects through experiments and assignments. Compared with the traditional teaching mode, the project-based teaching under the OBE concept breaks away from the principle of gradual progress, highlights the dominant position of students,

makes them become knowledge explorers, and has a positive help for the formation of applied thinking and innovative thinking.

Taking the case teaching method as an example, in the process of screening cases, teachers need to take students' abilities as the starting point, choose different case contents according to different students' abilities, and then formulate teaching strategies of business alienation. In this regard, teachers can classify from three aspects: basic teaching cases, core teaching cases and expansion teaching cases. According to the students' ability levels, different cases are cited to highlight the "student-centered", so that students can achieve new improvement and expansion on the basis of their own ability.

3.4 Reform of teaching evaluation system based on OBE concept

Under the concept of OBE, higher vocational colleges need to reform the teaching evaluation system, clarify the assessment methods of courses, the reference basis and evaluation methods of teaching evaluation, and evaluate students' web design and development ability in a more reasonable and scientific way. For example, in assignments, experiments and final examinations, we should focus on assessing students' application ability and avoid assigning some learning tasks that are not practical and practical. In the theoretical teaching environment, higher vocational colleges can use the network platform to record students' performance through big data technology, evaluate students' learning attitude and daily performance through data, and form systematic and complete assessment data; When designing the final examination paper, we can focus on the computer examination, and test students' development ability by completing the web design task. Through the reform of the teaching evaluation system of "web front-end development" course, higher vocational colleges have changed the train of thought of teachers, designed teaching programs to improve students' practical application ability, and applied teaching methods with strong interactivity and practicality. At the same time, in order to achieve the assessment objectives, students also need to adjust their learning mode, effectively master the web front-end development technology, and achieve the graduation standard through genuine talent and practical learning.

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In a word, under the concept of OBE, teachers of the "web front end development" course can change the traditional concept of education, focus on improving students' application ability, and innovate the teaching mode. By doing a good job in the top-level design of the course, clarifying the teaching objectives, focusing on the ability training, reforming the teaching content, promoting the improvement of students' ability, reforming the teaching mode and the teaching evaluation system based on the OBE concept, we can achieve the goal of improving the ability oriented reform of the teaching mode and improve the quality of talent training in higher vocational colleges.

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