

Exploration and Practice of teaching reform of Computer major in higher vocational colleges based on the concept of OBE

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Abstract: The concept of OBE education is an important educational theory that conforms to the demands of modern vocational education reform. It has important application value in the teaching reform of computer major in higher vocational education. It can effectively solve the problems of backward teaching mode, obsolete teaching content, single assessment and evaluation in the current teaching of computer major, and then promote the reconstruction of the training system of computer professionals. On this basis, this paper carries out research, through deepening the application of OBE education concept, respectively from the aspects of teaching objectives, teaching content, curriculum thinking and politics, teaching strategies, teaching evaluation and other aspects of computer teaching reform strategies and methods, in order to improve curriculum quality and teaching effectiveness.

Key words: OBE concept; Higher vocational colleges; Computer major; Teaching reform

With the popularization and application of the new generation of information technology, the modern society has an increasing demand for computer-related talents. In order to meet the current demand of enterprises for computer application-oriented talents, higher vocational colleges should comprehensively promote the integration of OBE education concept and computer professional teaching, so as to comprehensively improve students' professional skills and practical literacy, and obtain better employment development potential and opportunities.

I. Overview of OBE concept

OBE concept, the results-oriented theory, is an idealized education model that takes teaching output results as the center to guide teaching reform and optimization development. American education scholar Specti first put forward this educational idea, emphasizing that learners should be regarded as the central subject in teaching activities, and teaching strategies and methods should be adjusted according to their learning results, so as to achieve the educational purpose of promoting individual development and meeting the growth needs of learners. In the current process of vocational education reform, the application of OBE concept has a broader space and way. Teachers can cut into the aspects of teaching organization form, teacher role transformation, curriculum teaching optimization, teaching quality testing and teaching evaluation upgrade, and build a results-oriented computer professional talent training system.

II. Problems faced by the teaching of computer major in vocational colleges

1. The traditional teaching mode is outdated

In the traditional teaching of computer majors, "explanation + practice" is the teaching method adopted by most teachers. In the integrated teaching activities, teachers occupy the dominant position. They explain the curriculum knowledge for a long time, and then assign practice tasks for students, so that students can practice according to the knowledge, principles, operation methods and processes taught by teachers. Although this teaching method has a relatively stable teaching efficiency, the overall teaching process is boring. On the one hand, it is impossible to establish the dominant position of students. The whole teaching activity is completed by teachers, and students lack the learning space for active communication, free expression and cooperative exploration. On the other hand, the long-term implementation of this teaching method will gradually affect students' enthusiasm in learning and their initiative to participate in activities, which will not only affect the development of students' thinking ability and creative consciousness, but also make students tired of learning.

2. Weak pertinence of teaching content

Computer courses are rich in content and have high practical requirements. For example, in the course "Website Front-end Development Technology", students are required to master the knowledge of webpage making, HTML label, CSS style, CSS text layout, Bootstrap, JavaScript and other related courses. However, in the current teaching content design, teachers often separate theoretical knowledge from practical projects, which makes students unable to understand its practical significance in the theoretical learning stage, but forget the theoretical basis in practice. At the same time, due to the complex and rich content of computer courses, the existing class hours cannot meet all the content of students' learning, and the teachers do not optimize and integrate according to the development requirements of students, job needs, employment goals, etc., nor do they combine the typical work tasks of enterprises with course knowledge, thus making the course content lack of pertinency and key elements. Which limits students' personalized development.

3. Single assessment and evaluation method

In the traditional evaluation and assessment mode of computer major, the evaluation content is generally "peacetime score (30%) + final score (70%)" two parts, and peacetime score mainly according to the students' attendance, homework and class performance of three aspects. Such assessment system still has typical characteristics of final evaluation, neither the process and links of students' learning into the evaluation content, nor highlight the differences and personalities between students, resulting in most students' normal scores are relatively close, and as long as the final exam time to study for a period of time, you can get a relatively good final score. As a result, the evaluation

results of students are unscientific, unreasonable and not objective, and it is impossible to effectively feedback the learning defects of students and the design defects of teaching activities, and it is difficult to achieve the effect of feedback optimization.

III. The teaching reform strategy of computer major in higher vocational colleges under the OBE concept

1. adhere to the post ability docking, the construction of professional core curriculum teaching objectives

Under the concept of OBE, the computer major must be results-oriented in teaching. From a macro perspective, the job skills of students after employment are the learning goals and learning results that students should achieve. Therefore, in order to comprehensively improve the employment level of computer majors, it is necessary to promote the accurate docking of job skills and the development of students' ability. Thus improving the teaching objectives of the core courses of the major.

First of all, for higher vocational colleges, their curriculum and personnel training must be based on serving local economic development. Therefore, higher vocational colleges need to comprehensively investigate and understand the job groups for computer professionals in the region, understand the requirements and standards for students' skills in different positions, and then adjust the core curriculum teaching objectives according to the job skills, so as to ensure that students in different directions can have the comprehensive ability and accomplishment of employment development.

Secondly, we should insist on promoting the integrated construction of "post course competition certificate", take the cultivation of students' vocational core literacy as the central goal, and establish a teaching goal construction mechanism of "multiple standards and precise learning situation" based on job skills, national/provincial curriculum standards, vocational skills competition projects, and the content of "1+x" skill certificate examination. To further promote the docking relationship between post ability standards and curriculum Settings.

In addition, it should also be based on the analysis of learning situation, clarify the development goals and learning difficulties of individual students, and build a tripartite reform mechanism of "promoting teaching + promoting learning + promoting reform" by summarizing and integrating the learning results of students, so as to achieve the cultivation goal of core skills and theoretical knowledge according to the actual needs of students.

2. Accurately analyze students' learning situation and reconstruct teaching content based on post skills

Under the guidance of OBE education concept, teachers of computer science in higher vocational colleges need to pay more attention to students' individual development and needs, so as to establish a corresponding accurate analysis mechanism by comprehensively understanding students' learning situation in the actual teaching process, grasp students' actual learning status, learning ability and learning results, and promote the reconstruction and improvement of teaching content based on this.

First of all, it is necessary to analyze the physical and mental characteristics of students, grasp the common misunderstanding of students' thinking, and the learning obstacles that most students are prone to encounter. At the stage of higher vocational education, students' thinking development and emotional growth are in the formative stage, not only their ability and character are not stable and mature, but also have a certain degree of plasticity and innovation. Only by understanding the advantages and defects of students, can we gradually optimize the teaching plan in the teaching design.

Secondly, it is necessary to analyze the current knowledge level and ability quality of students, so as to grasp the knowledge, skills and experience basis of students. On this basis, we can ensure that the course content, theoretical basis and assigned project plan of the teacher are in line with the students' ability category.

Thirdly, it is necessary to analyze the individual differences of students, including intellectual performance, thinking quality, learning habits, knowledge reserve, etc., so that heterogeneous groups can be established in teaching activities, so that students can complement each other in learning.

Finally, in the reconstruction of teaching content, teachers should, on the one hand, introduce the real cases provided by the cooperative enterprises into the textbook content, reconstruct and integrate the existing curriculum system through the school-based curriculum, talent training plan and curriculum standards and other elements developed by the school-enterprise cooperation, and then design the curriculum knowledge system based on the real work flow of the enterprise. Form a task-driven, case-guided and context-created curriculum system to meet students' needs and improve their internalization and perception ability.

3. Deepen the ideological and political construction of the curriculum, and promote the implementation of the fundamental task of cultivating virtues and talents

Under the guidance of the fundamental task of cultivating people by virtue, the implementation of OBE education concept needs to be based on the premise of curriculum ideological and political construction. In the current demand for talents in the computer industry or related enterprises, the moral quality of students is also a crucial influencing factor. Therefore, on this basis, it is also necessary for teachers to adhere to the implementation of the concept of three-in-one education and integrate ideological and political elements into each teaching link.

First of all, we should adhere to the connection between computer courses and the society, through labor education, traditional culture, red culture and other activities and contents, cultivate students' correct career outlook, labor outlook and practice outlook, and be able to use their labor behavior to contribute to the prosperity and strengthening of the people, cultural self-confidence, and national rejuvenation.

Secondly, we should adhere to the connection between computer courses and positions, and urge students to establish a work attitude of

excellence and unswerving work spirit through the contents of craftsman spirit, professional ethics and industry norms.

Finally, we should insist on the connection between computer courses and culture, and strengthen students' artistic accomplishment through the innovative expression, application and development of the excellent traditional culture of the Chinese nation.

4. Break through the key and difficult points of teaching, and realize the innovation of teaching strategy and teaching model

In the process of the development of information-based education, higher vocational colleges should also promote the integrated development of "Internet +OBE concept", so as to create a hybrid computer professional course model, and build an environment and space for students to learn independently and deeply.

First of all, vocational colleges should promote the development and application of high-quality online courses on the basis of blended teaching. For example, it is possible to build a high-quality course of "Front-end Website Development Technology", so as to provide high-quality resources for independent learning for computer students and relevant industry employees or target employees.

Secondly, teaching methods and strategies should be comprehensively improved. On the one hand, we should adhere to task-driven, division of labor, project task and other teaching methods, and establish the student body so that students can form learning results in independent exploration and cooperative exploration. On the other hand, it is necessary to break down the problems exposed in the learning process based on students' achievements, and then supplement and improve the teaching purpose through sharing, summarizing and evaluating.

In addition, diversified teaching means should be created, such as gamified teaching, role playing activities, peer experience sharing, etc., so as to enhance students' interest and sense of experience in learning, and further promote the implementation of teaching goals such as multidisciplinary integration and cultivation of professional core qualities.

5. Pay attention to students' professional development, and establish a multi-dimensional teaching evaluation system

Under the concept of OBE, the construction of teaching evaluation system is very important, and it is a key link for teachers to obtain students' learning results and evaluate students' abilities. In view of the traditional evaluation system, schools should promote the construction and development of multi-dimensional evaluation model.

First of all, we should optimize the teacher evaluation system, adhere to the goal-oriented, reverse design the evaluation content, and implement the evaluation activities forward. That is, teachers should set evaluation content and standards according to students' job employment goals, implement evaluation results according to students' actual learning situation and results, and then urge students to improve themselves according to the differences between the results and standards.

Secondly, an enterprise evaluation system should be introduced to evaluate the phased performance and final results of students' internship in the internship link, so as to scientifically demonstrate the quality of students' internship, vocational skills, occupational habits and professional accomplishment.

Finally, the student evaluation system should be implemented. In the self-assessment, students are required to evaluate their theoretical application ability, skill attainment level and moral quality on the basis of self-knowledge, self-reflection and self-experience. In the group evaluation, the group leader evaluates the group members according to their performance in the project task, division of labor, fineness of completion, degree of task completion, mastery of professional skills, etc. In group evaluation, students need to evaluate the performance of group members, group contribution, mutual guidance and other aspects.

IV. Conclusion

To sum up, in the process of modern vocational education reform, the concept of OBE education has become a key basis for promoting the reform of computer professional teaching and the construction of personnel training system. In view of the problems faced in the teaching of computer majors in higher vocational colleges at the present stage, we should build a professional teaching model that meets the needs of students and achieve the goal of results-oriented education by adhering to post ability docking, accurately analyzing students' learning situation, deepening curriculum ideological and political construction, breaking through teaching key and difficult points, and establishing a multi-dimensional evaluation system.

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