Computer Basic Course Teaching Based on Blended Learning

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Abstract. Blended learning is the latest trend in the development of international education. It integrates face-to-face learning in traditional classroom and Online Autonomous Learning Assisted by information technology. Its emergence is of great significance for the reform of the current basic computer teaching. This paper introduces the theory of blended learning. Based on the research of blended learning theory, this paper puts forward a blended learning teaching design mode of computer application foundation course, which is suitable for the current situation of university teaching. It can provide online learning and communication for students and teachers, and improve the shortcomings of traditional teaching mode, so as to help the reform of computer professional teaching development.

Keywords: Blended learning · Basic computer courses · Course teaching

1 Introduction

Nowadays, with the development of Internet and information technology, teaching methods have been improved, which has replaced the previous "chalk + blackboard" mode, making the expression of teaching content more intuitive, increasing the amount of classroom information and improving teaching efficiency. However, the relationship between teaching and learning is still "you teach me to learn". The difference is that the content of the teaching material is made into courseware, the content on the paper is projected to the large screen through the projection instrument, and the "electric irrigation" is adopted. It is still a teacher centered teaching mode, and students are always in the position of passive learning. In this teaching mode, the channel for students to obtain knowledge and information can only come from the teachers in the classroom. Unfortunately, teachers can not teach all the knowledge to students, and students can not learn all the knowledge. In fact, what students lack is how to learn how to learn and how to obtain information related to learning content through various channels. In addition, due to the differences in learning of students from the same learning starting point, it is difficult to adapt to students with different learning abilities by adopting a single teaching organization form, which is not conducive to teaching students in accordance with their aptitude, especially the teaching of "full regular irrigation" is not popular with students. As a result, students' learning initiative is ignored or even suppressed, which directly affects the teaching effect.

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2 A Summary of Hybrid Learning

The development of society and information technology has changed the way we communicate and learn, which inevitably changes the way we think. The form of communication and the management of information challenge our cognitive ability and the teaching paradigm of traditional classroom. The development of Internet promotes the popularity of distance education, and brings new learning form online learning. People define online learning as the process of learners using the Internet to obtain learning materials and complete the learning process through interaction with teachers and other learners. One of the most important problems faced by online learning is whether students can get better learning effect than traditional classroom teaching. The increase of students and the diversification of population structure, as well as the development of lifelong education and information technology, have brought opportunities for the emergence of new teaching models. The president of Pennsylvania State University in the United States thinks that hybrid learning is "the only recognized development trend in higher education today". Hybrid learning combines the advantages of traditional teaching and network teaching, which can effectively make up for their shortcomings, and thus has been favored by the society and the education community. Hybrid learning (BL) is a combination of traditional face-to-face teaching and modern information technology, and is being applied to teaching more and more. Some scholars predict that hybrid learning will become a "regular mode" in curriculum teaching [1].

The elements of hybrid learning can be represented by hexagon formed by two triangles. As shown in Fig. 1, the status of these six elements in hybrid learning is equally important. The six elements are divided into two systems, which support and integrate each other, reflecting the characteristics of hybrid learning.

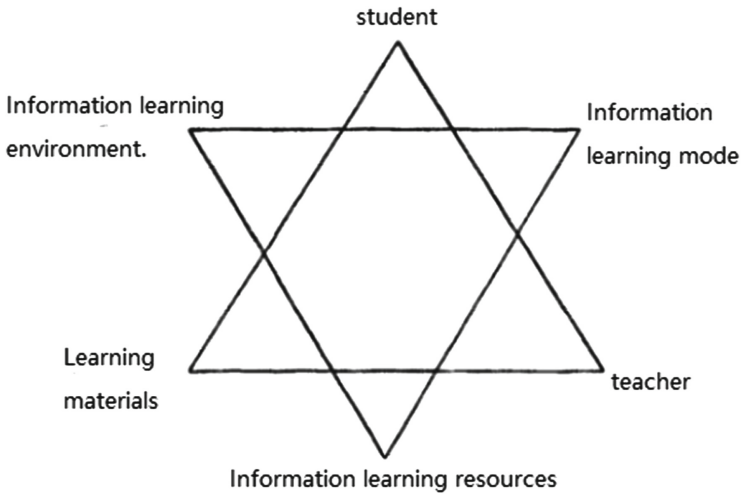

Fig. 1. Six elements of blended Learning

In the information-based learning environment, great changes have taken place in people's learning style. Information learning is different from traditional learning methods. Learners' learning not only depends on Teachers' teaching and textbook learning, but also uses information platform and information resources to carry out negotiation and cooperative learning between teachers and students. Through the collection and utilization of resources, they can explore knowledge, discover knowledge, create knowledge and display knowledge.

After the implementation of blended learning, the main elements of blended learning, including teachers, students and learning materials, have also changed, as shown in Fig. 2.

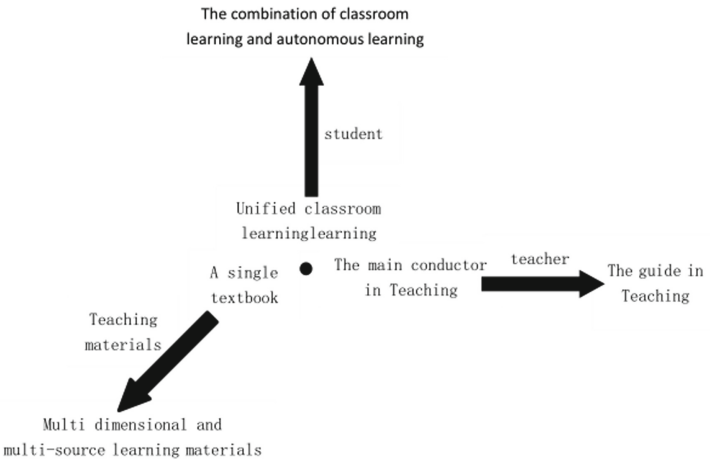

Fig. 2. The change of basic elements in blended learning

The construction of blended learning mode is an effective teaching mode in terms of teaching form, which breaks through the traditional single classroom teaching mode and improves teaching means; in terms of teaching content, it expands students' horizons, expands students' learning scope and enriches students' learning content; in terms of teaching content, it expands students' learning scope and enriches students' learning content; In terms of learning style, it breaks the boundaries of time and space, changes the cognitive style, and makes the "student-centered" white master learning a reality.

3 Shortcomings of Traditional Teaching Mode in Computer Teaching in Higher Vocational Colleges

3.1 The Use of Multimedia Courseware Is Too Much, with a Certain Degree of Dependence

In the traditional teaching mode of computer application foundation course, teachers use multimedia courseware excessively. Multimedia courseware should be used properly, in order to play a very good teaching effect. If it has a certain dependence on multimedia

courseware, this kind of teaching method is not conducive to students' learning, which will lead to students not having their own thinking ability. Due to their own characteristics, students' basic computer knowledge is uneven, excessive use of multimedia courseware is not conducive to the improvement of students' practical operation ability, leading to teaching can not achieve the expected teaching objectives.

3.2 The Effect of Improving Students' Computer Professional Skills Is Not Obvious

For students, it is very important to improve their professional skills. But in the traditional teaching mode, we do not pay attention to the training of practical operation ability of the students in higher vocational colleges. Students should have certain computer professional skills and hands-on operation ability. But the students' own knowledge level is limited. Therefore, in the face of some professional computer knowledge, will not achieve the expected effect. This leads to students not enough interest in learning, so that they can not further improve their professional quality [2].

4 Research on Teaching Mode of Basic Computing Course Based on Blended Learning

In view of the new situation and new tasks of the current basic computer education, we believe that the reform of basic computer teaching is imperative, and the teaching mode based on blended learning will provide a new idea for deepening the reform of basic computer course.

4.1 The Mixture of Teachers' Leading Role and Students' Principal Position

In the teaching mode, mixing the leading role of teachers with the dominant position of students is from the perspective of teachers and students, which emphasizes the leading role of teachers in classroom teaching and the dominant position of students in the learning process. It is a teaching mode of "leading subject combination". In the initial stage of the teaching process, it is necessary to rely on teachers to stimulate students' interest in learning and help students form learning motivation; in the teaching process, it is also necessary to rely on teachers to connect the current new knowledge, new concepts and students' original cognitive structure about the current knowledge, so as to form meaningful learning. Therefore, the leading role of teachers should be emphasized in these stages. Students are the main body of information processing and the active constructors of knowledge meaning. Only by giving full play to their initiative and enthusiasm can they obtain effective cognition. This kind of active participation creates good conditions for students to give full play to their initiative and enthusiasm, so that students can truly embody the role of cognitive subject.

In the course of computer foundation, we should change the traditional teaching mode which takes the teacher as the center, and combine the teacher's leading role with the student's dominant position, so as to realize the optimization of teaching effect [3].

4.2 The Mixture of Classroom Teaching and Network Learning

The basic computer course is highly practical, the teaching content covers a wide range, and the difference of students' basic computer knowledge is very obvious. We should not only satisfy the classroom teaching, but use information technology to create a new teaching environment, For example, the application of network provides a good platform for practical courses. Therefore, we should build a website for basic computer courses and provide all the teaching resources of the course, including the material library, experimental instructions, teaching cases and expanded knowledge that students need for self-study.

The combination of classroom teaching and network learning in computer basic course can fully cultivate students' computer operation ability, problem analysis and problem solving ability, autonomous learning and cooperative learning ability, and meet the learning needs of students of different majors and levels.

4.3 The Mixture of Autonomous Learning and Cooperative Learning

Students' autonomous learning can be carried out through teaching materials, notes and other teaching resources before or after class, and they can also independently retrieve relevant resources through the network or carry out planned learning according to the guidance of network courses. The development of cooperative learning mainly refers to group discussion, communication in traditional teaching environment and online topic communication based on network environment.

The quality of students' autonomous learning and cooperative learning will directly affect their learning effect. How to guide students to integrate all kinds of learning methods, give full play to students' learning enthusiasm, enhance students' sense of participation, and cultivate the spirit of team cooperation is also an important issue for hybrid teaching.

4.4 The Combination of Process Assessment and Summative Evaluation

The key point of computer basic course examination lies in the cultivation of students' computer knowledge and ability. Therefore, the form of examination should be diversified. The examination system adopts the mode of "theory+. Computer", which can not only investigate the basic theory, but also test the operation skills. At the same time, a comprehensive design course design is arranged after each basic computer course, which is included in the final evaluation results of the semester. These measures cultivate and train students' practical operation ability and improve their comprehensive application ability.

The summative evaluation of the semester should include process assessment, curriculum design and final examination. At the same time, competition should be carried out to promote students' learning, to evaluate students' comprehensive ability and improve the assessment mechanism. For example, hold the annual computer skills competition, including computer basic knowledge, office automation application, database application system design, program design and other skills competition, in order to show students' quality and promote the improvement of students' comprehensive application ability.

5 Conclusion

In the process of deepening and improving the reform of basic computer teaching, First of all, we should set up the advanced educational thought of "teacher oriented, student-centered". Under the guidance of the advanced educational thought, we should explore new teaching means and methods mixed with various teaching modes, strengthen students' computer practical ability, pay attention to cultivating students' ability and quality, and promote the vigorous development of computer basic course teaching.

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