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Principles and Methods of Online and Offline Blended Course Construction Based on the OBE Concept

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ABSTRACT

The construction of online and offline blended courses based on the OBE concept can not only effectively avoid shortcomings of traditional teaching concepts, but also better adapt to the current society's needs for the cultivation of applied talents, becoming the choice of more and more college teachers to conduct curriculum reform research and practice. Inspecting the course based on the OBE concept, it can be seen that in order to better carry out the construction of online and offline blended courses, it is necessary to carry out research on three aspects: highlighting the student as the center, clarifying the output orientation, and strengthening continuous improvement. In the process of construction, it is a necessity to adhere to the principle of value orientation, learning value-added principle, multivariate mixing principle, and dynamic improvement principle, and to start from the perspectives of learning process design, teaching process design, course resource design, and assessment system design to more effectively build a "golden course" of "excellent curriculum, powerful teachers, busy students, strict management, and practical effects".

1. INTRODUCTION

In the process of the application-oriented transformation of undergraduate majors, college teachers have all found that traditional teaching can no longer match the support for talent training. There are phenomena such as "separation of teaching" between teachers and students, teachers "teaching without needing", "talking on paper", and students "learning but not being capable" and "high grades and low abilities". Problems such as outdated teaching concepts of teachers, lack of motivation for students to learn, closed assessment and evaluation models, and weak application ability of teachers and students have directly affected the curriculum construction and reform, and have become a huge obstacle to the application-oriented transformation. In order to solve these problems, teachers in colleges and universities have explored various ways, and carried out different types of research and practice from the levels of concepts, models, and methods.

In June 2018, the Ministry of Education proposed that "water courses" should be transformed into "golden courses" with depth, difficulty and challenge, and breakthroughs should be made at the curriculum level. Facing the opportunity, on the basis of the original research and practice, each course further clarified the reform and innovation ideas, and carried out the construction of "golden courses". Among them, online and offline blended courses have become an important breakthrough for college teachers to carry out teaching reform because of their "individualized, open and interactive" characteristics [1]. In October 2019, the Ministry of Education proposed the "Double Ten Thousand Plan", which plans to identify about 6,000 national-level online and offline blended first-class courses. Under the vigorous promotion of the Ministry of Education and various colleges and universities, online and offline blended courses have become a widely accepted teaching mode for college teachers due to their advantages of integrating traditional teaching and network

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informatization teaching [2], being more and more applied in teaching reform research and practice.

In various research and practices, the construction of online and offline blended courses based on the OBE concept has been chosen by more and more college teachers. This method can not only effectively avoid some shortcomings of traditional teaching concepts, but also better adapt to the current society's needs for the cultivation of applied talents [3]. In order to better build online and offline hybrid courses based on the OBE concept, it is a must to start from the concept itself, review the course again, and then clarify principles and explore methods.

2. EXAMINING THE CONSTRUCTION OF ONLINE AND OFFLINE BLENDED COURSES WITH THE OBE CONCEPT

2.1. Highlight the Students as the Center

In the traditional teaching concept of teachers, the starting point is often "how do I teach", and the logical starting point of teaching design is the teacher. Teachers are more likely to think about "how do I explain what I want to say well" and "how do I attract students", but it is easy to ignore that the ultimate goal of teaching is students' knowledge acquisition and ability development. Therefore, it is necessary to abandon the teaching design concept with teachers as the starting point, weaken the teacher's "teaching" tradition, change the role of teachers, highlight the center of students' "learning", and carry out teaching reform again. In "teaching" and "learning", the behavior that can directly lead to course output is "learning" rather than "teaching". In the research and practice of teaching reform, for any link in the learning process, teaching process, curriculum resources, and assessment methods, it must be closely integrated with student "learning" in order to avoid the inefficient behavior of resources and energy being devoted to factors unrelated to course output.

2.2. Clarify the Output Orientation

In the traditional teaching concept of teachers, the starting point is often "what do I want students to learn", and the course output is the teacher's expectation. Teachers are more likely to think about "what students should learn" and "what practitioners should be like", and they are easy to ignore that the ultimate goal of the course is to support talent training. The goal of talent training is to consider the needs of social development. This need includes both existing human resource composition factors, current human resource supply factors, and possible human

resource needs of future social development, etc., which are the problems that need to be studied from a macroscopic, systematic and dynamic perspective at a higher position. To clarify the curriculum output, from a micro perspective, it is to jump out of the limitations and one-sidedness of teachers' personal understanding of the curriculum, and to identify the curriculum objectives based on the degree of achievement of personnel training objectives.

2.3. Strengthen Continuous Improvement

The traditional teacher's teaching concern is often the starting point "how can my curriculum be improved?". Curriculum improvement is more about continuous strengthening and advancement in the existing direction, and it is easy to ignore that teaching and learning itself will follow the development of science, technology and culture to generate huge changes. As the difficulty of obtaining information decreases and the speed of information interaction increases, "teaching" and "learning" and the relationship between them will be adjusted or even subverted in a short period of time. Curriculum reform can no longer be limited to the existing ones. Teachers need to open their eyes, open their minds, take action, review the curriculum with curriculum output, and be ready to carry out incremental innovation or subversive reform of the curriculum at any time. This process should be part of a virtuous cycle of curriculum construction, and should be a dynamic cycle with both regular and irregular inspections to ensure continuous improvement of the curriculum.

3. PRINCIPLES OF ONLINE & OFFLINE BLENDED COURSE CONSTRUCTION BASED ON THE OBE CONCEPT

3.1. The Principle of Value Orientation

When constructing online and offline blended courses, first of all, it is a must to start from the course output based on the OBE concept, and clarify the course objectives at all levels, which requires not only the knowledge and skills of the basic layer, but also the process and methods of the application layer, and the emotions, attitudes, and values of the social layer. The starting point of the course goal determination is the talent training goal of the discipline, and the end point is the final goal of education. In between, there is a need to find specific goals that meet the curriculum output according to the actual curriculum, and the three levels should be logically continuous and progressive, which can reflect the structure of "gradient achievement" [4]. At the three levels, it is

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necessary to carry out a step-by-step decomposition to identify the clear values required in different learning stages, reflect the transmission and deepening of the value, and construct from the vertical to avoid the isolation of the three levels. The so-called value-oriented principle is actually starting from the course goal, running through the whole process of course construction, and striving to cultivate students into a "complete person", "cultured person" and "socially adaptable person" through a carefully designed course [5].

3.2. The Principle of Value-Added Learning

There are clear requirements in the construction documents of the Ministry of Education of online and offline blended courses. It is necessary to arrange 20%-50% of the teaching time for students to learn online independently, and organically combine with offline teaching. In the course construction, the original "1" teaching time (1 here means the whole) must be separated according to the two modules of students' online self-learning and offline teaching, instead of increasing students' online self-learning on the basis of the original "1". Blended teaching has significant advantages in supporting students' inquiry, reflection and in-depth learning, releasing students' learning potential and innovation, and improving students' learning experience and learning quality [1]. It is necessary to take full advantage of this advantage, accurately divide the specific content belonging to the two modules. It is also necessary to try to use the breadth of online multimedia learning to guide students to explore, and use offline task-based flipped courses to prompt students to reflect, in which way both online and offline can better play their respective advantages. By setting the corresponding content in a more suitable form, the teaching effect of the course can be realized on the premise of the same teaching time, and the original "1" will be added value. This is an important construction idea for the construction of online and offline blended courses [6].

3.3. The Principle of Diversified Blending

In the construction of online and offline blended courses, the essence is "blending" and the goal is "integration". To avoid the singleness and closure of teaching, it is necessary to carry out diverse blending from multiple aspects. The first is the diversity of student roles. At different learning stages, students can be viewers, lecturers, practitioners, commentators, researchers, and many other roles. The second is the diversity of teacher roles. In different situations, teachers can be lecturers,

coaches, assistants, opponents, collaborators, etc. Then, there is the diversity of teaching methods. For different contents, there can be case teaching, group teaching, flipped classroom, research practice and other methods. And then, there is the diversity of teaching carriers, which can be in the form of teaching materials, exercises, literature, recordings, videos, H5, etc. Finally, there is a variety of assessment methods, such as attendance system, course interaction, in-class seminars, extra-curricular practice, etc. [7] Diversified blending, on the one hand, makes the course "teaching" and "learning" more three-dimensional, and improves the breadth and depth of learning, and on the other hand enhances the motivation of students to learn, starting from the main body of "learning" to ensure the effectiveness of "teaching".

4. ONLINE AND OFFLINE BLENDED COURSE CONSTRUCTION METHODS BASED ON THE OBE CONCEPT

4.1. Learning Process Design

To design the learning process, it is necessary to reverse the design from the course output, infer the learning goals that students need to achieve to achieve the teaching goals at all levels, and minimize these learning goals until the specific learning behavior of each specific content is clarified. Starting from the cognitive domain, it is necessary to clarify the various parts of the curriculum that need to be memorized, comprehended, applied, analyzed, synthesized, and evaluated. Starting from the emotional field, it is necessary to clarify the different levels of acceptance, response, formation of values, organization of value systems, and individuation of value systems in the curriculum. After the reverse research, the whole process of course learning is designed according to the ideas from shallow to deep, from easy to difficult, and from part to whole. In general, the learning of the memorization part should be arranged first, which is also the part of emotional value acceptance. Next is the comprehension and application link, which is also the part that responds to emotional value; and then, it is the part of analysis and synthesis, which begins to gradually form values and organize them into a system of values; if conditions permit, teachers can also set up a further in-depth study link, that is, the evaluation link, which can personalize the value system. In particular, it should be noted that according to the requirements of the OBE concept of "student-centered", and each link in the course construction must be based on student learning, that is to say, learning process design is the

logical starting point and reference point for the construction of online and offline blended courses based on the OBE concept.

4.2. Teaching Process Design

After completing the learning process design, the teaching process design is relatively easy. As long as teachers change their minds, no longer consider "I want to teach", but "students want to learn", and no longer take their own teaching as a guide and turn their attention to the students' learning process, it will be easy for them to see what role teachers need to play at each stage of the learning process, or what kind of help and support students need. In the process of memorization, teachers play the role of learning resource providers, avoiding personal interference to students' learning as much as possible; In the process of comprehension and application, teachers play the role of coaches and masters, helping students as much as possible to use the knowledge learned by the students in the first stage, rather than using the knowledge possessed by teachers; In the process of analysis and synthesis, teachers play the role of debating opponents and opinion opponents, guiding students as much as possible to deduce and verify the knowledge learned in the first and second stages, and then strengthen or correct them; In the evaluation process, teachers play the role of collaborators and co-explorers. They try to elevate the curriculum goals to a more macro level and guide students to further think, dialectically and reflect. In the design of the entire teaching process, teachers must first be free of "I", accompany and assist students in their learning, and when students enter a high stage of learning, they will also enter the realm of no "I", and the entire teaching process will be considered complete.

4.3. Curriculum Resource Design

After completing the learning process design and teaching process design, the curriculum resource design will be more targeted. It is necessary to accurately focus the course resource design on the course objectives, compare all the links in the learning and teaching process, determine the best course resource form based on the purpose and content, and then arrange and design the different course resource forms according to the online part and the offline part. When arranging the online part and the offline part, teachers can use the teaching calendar tool to arrange the learning process and teaching process according to the teaching calendar, and use the fill-in-the-blank method to gradually improve the course resource design [8]. The first is to arrange the content that can be used for online self-learning, such as the most basic knowledge memorization part. Second is to arrange

the remaining parts that must be taught offline, such as some content in the application link. Next step is to make a secondary distinction between the content that is not particularly clear about the online or offline part, fill in the blanks again, and arrange the part that is relatively more suitable for online and the part that is relatively more suitable for offline. There is a must to arrange again and again until the arrangement is completed. After completing the arrangement, teachers can select the carrier according to the module where the course resources are located. Online resources should reflect the characteristics of diverse types, visualization of forms, interesting introductions, and refined content. Offline resources should focus on cohesion of content, appropriateness of methods, depth of problems, breadth of participation, and integrity of the process [2]. As the course construction platform APP for mobile devices becomes more and more perfect, the design of course resources should break the boundaries as much as possible, bring offline teaching online through virtual simulation means, and integrate information technology into offline, going from a simple binary blend to a deeper blended model.

4.4. Assessment System Design

Whether the course objectives have been achieved, it is necessary to use specific indicators to determine the degree of student learning achievement. This is one of the more difficult aspects in the construction of online and offline blended courses, that is, the design of the assessment system. Through blended teaching, the advantages of abundant online resources, flexibility and convenience, and the advantages of efficient offline guidance and direct feedback can be used. Assessment indicators can be set, such as online teaching task points, flipped classroom tasks, teacher-student interaction, student-student interaction, extracurricular practice, online exams, offline comprehensive training projects, offline comprehensive assessment and other assessment projects. Assessment indicators can also be set from the perspectives of learning attitude evaluation, knowledge mastery evaluation, skill application evaluation, and comprehensive application ability evaluation. After the setting is completed, it is necessary to re-adjust the assessment weights to make each part relatively balanced and coordinated. From the beginning of the course, the students' learning effect is three-dimensionally evaluated from three aspects: attitude, process and application. At the end of the course, the student's learning effect is evaluated from the degree of goal achievement, in order to encourage students to correct their learning attitude, pay attention to the learning process, abide by the training rules, and clarify their learning goals.

5. CONCLUSION

Forming a first-class undergraduate curriculum system with Chinese characteristics and world-class standards and building a higher-level talent training system is a long way to go, and it also requires the continuous travel and efforts of college teachers. Only by adhering to "undergraduate education-oriented", promoting "Four Returns", always putting students at the center, and constantly reviewing the effectiveness of curriculum reform with an output orientation, forming a dynamic and virtuous circle, and truly realizing the sustainable development of curriculum reform research and practice, can it effectively build an online and offline blended "golden course" with "excellent courses, strong teachers, busy students, strict management, and practical effects".

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