Analysis of the Application Problems of the Current Blend-Teaching Mode

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Abstract—**In recent years, the rapid development of modern information technology has promoted the reform of education and teaching methods. The integration of modern information technology and traditional teaching methods has formed a new blend-teaching model. At present, the new blend-teaching mode has been widely used, and some problems have arisen. Through the practice, analysis and comparison methods, this paper analyzes how to improve the scientific, rationality, pertinence, effectiveness and comprehensive evaluation of the blend-teaching mode. On this basis, it puts forward 11 articles that need further improvement. It is hoped that through the research on the problems existing in the application of the new blend-teaching mode, some teachers will be provided to help teachers who use the blend-teaching mode.**

Keywords—Online learning;Offline classroom teaching; Blend-teaching mode; Problem analysis

I. INTRODUCTION

In recent years, with the wide application of Internet technology in the education industry, teaching methods such as MOOC, SPOC, micro-class and cloud classroom have been produced. Because these new teaching methods are not limited by time and space, and the teaching resources are relatively rich, they are well received by everyone. For example, MOOC (Massive Open Online Courses, MOOCs), which reflects the characteristics of large-scale, open, and online. MOOC provides instructional videos and learning materials through the Internet, builds interactive forums, and organizes a large number of learners to study together in the same learning community [1].

SPOC (Small private Online Course, SPOC). The SPOC teaching method adopts a small-scale and restrictive open strategy, which effectively reduces the basic differences of learners. It enables teachers to distinguish different learning situations, help and guide students to learn in a targeted manner, and further improve Learner engagement and learning outcomes [2].

Cloud Classroom, which is the product of a combination of online courses and cloud computing technologies. With the continuous development of computer virtual technology, it is possible to realize the "virtualization" of the online classroom. Teachers can upload all the course resources to the network cloud data center. When they log in to the homepage of the network platform, they can download from the "cloud". Course

resources are available for the corresponding course resources. The cloud classroom is an upgrade and virtualization form of MOOC, SPOC, and micro-classes [3].

Although the above online course teaching method can realize the sharing of high-quality teaching resources, expand the number of students, realize the independent learning of learners, and provide convenience for learners. But they also exist that learners must have no network barriers, while teaching resources are virtualized content, lacking the scenes and environment of real classrooms and the teaching content is completely completed in advance. Therefore, the above teaching methods are difficult to adjust the teaching content and teaching methods according to the characteristics of the learners, and it is not easy to control the learning process of the learners, and put forward higher requirements for the learners' self-control ability and self-planning ability. The pass rate of learners' courses is relatively low. Due to the above shortcomings, a blend-teaching mode combining online and offline classrooms has been created. This new hybrid teaching model is actually a high-level blend-teaching method. However, the application of this blend-teaching mode is related to the change of teaching management mechanism, the matching of evaluation system, the change of teachers' teaching concept and the improvement of teachers' teaching skills. The traditional offline teaching mode is mainly teacher-centered, and the teacher instills knowledge into the students in a one-way manner, and the students passively accept. Therefore, the new hybrid teaching model has a greater advantage than the traditional teaching method.

II. THE CONCEPT OF A BLEND-TEACHING MODEL

A. The teaching mode

The teaching model is an intermediary that transforms relevant educational theories into specific teaching activity structures and operational procedures. Generally speaking, a complete structure of teaching activities consists of theoretical foundations, teaching objectives, teaching conditions (or means), teaching procedures or programs, and teaching evaluations. They are interdependent and interact. Any teaching mode should have the above five elements, but the specific implementation is not static. The teaching mode is different in specific operations, and the specific content of each part will change.

B. The blend-teaching mode

The blend-teaching mode is a combination of traditional classroom teaching methods and online teaching forms under the guidance of various theories. The blend-teaching mode uses a variety of media, teaching materials and technical forms to cover the content, environment and teaching methods involved in teaching activities. Systematic design, media, evaluation feedback, etc., in order to achieve a comprehensive teaching form that focuses on individual cognitive, skill improvement and emotional training, is a new teaching method to improve students' learning effect.

C. Analysis of the elements of blend-teaching mode

1) A mixture of teaching environments

In the blend-teaching mode, the mix of classroom teaching and online learning is the two basic components. The blend-teaching mode combines two forms of classroom teaching and online learning of students. Therefore, it is necessary to ensure that the two "environments" are normal. Through these two "environments", it can support the smooth development of normal blend-teaching forms.

2) A mix of teaching methods

In the blend-teaching, how to make students integrate the self-directed online learning in the network with the teacher's explanation and group discussion in the traditional classroom teaching environment becomes the primary task of the blend-teaching mode. Because the mixture of teaching methods has a traction effect on the factors that constitute the blend-teaching method, teachers need to systematically and closely organize and design the blend-teaching methods.

3) A mixture of interactions

In the blend-teaching mode, the interactive forms of learning include the interaction between teachers and students in the traditional classroom environment, as well as face-to-face discussions and exchanges between students, as well as discussion and communication in the online course. Through the teacher-student exchanges and group discussions carried out in the offline classroom, the students and students can develop their emotions. At the same time, with the help of the teacher-student interaction of the online learning platform, students can also adapt to the new teaching mode and improve the learning effect of students.

4) Mixing of teaching multimedia

The teaching media is an important carrier for storing and transmitting teaching information in a blend-teaching mode. The traditional classroom teaching media is mainly presented in the form of paper textbooks and blackboards, including PPT. The multimedia in online teaching is mainly presented in digital way, such as text, pictures, audio, video, animation and virtual reality. The two media methods can complement each other and give full play to their respective advantages to optimize the teaching effect.

5) A mixture of teaching evaluation

In the blend-teaching mode, attention should be paid to the diversification of the evaluation subject and the diversification of the evaluation form. The evaluation includes teacher evaluation, student self-evaluation and student mutual evaluation. In the evaluation method, both the result and the learning process should be paid attention to. Through the combination of online learning and offline course study evaluation, flexible, diverse, open and dynamic assessment methods are used to help students effectively regulate their learning process, from passive acceptance of evaluation form to evaluation subject and active participants.

III.   DESIGN PRINCIPLES OF THE BLEND-TEACHING MODE

It can be seen from the above description that the mixed elements of blend-teaching are not simply mixed at random, but must follow the principles and requirements of the blend-teaching mode. The composition and process of the blend-teaching mode should be designed according to the design principles. Without the random mixing of design principles, it will be difficult to improve the rationality and effectiveness of blend-teaching in the course teaching. Therefore, the following design principles should be followed.

A. Learner suitability principle

The learner's fitness principle is the first principle that must be followed in the design of a blend-teaching model. The design of the blend-teaching model must first be learner-centered, and must consider the cognitive characteristics, knowledge structure, learning characteristics, learning objectives and learning process of the students. At the same time, we must also consider the teaching mix that suits the learner's needs and ability level.

B. Appropriate principles for learning content

Different mix elements are required for different types of courses and different learning content. Every element of blend-teaching needs to be fully considered to match the content of the teaching. More consideration needs to be given to the mix of autonomous learning and open learning methods. How to mix and mix the various elements in the hybrid instructional design depends on the characteristics of the course and the content of the course.

C. Suitable principle of the learning process

The mix of elements required to design a different learning activity is also different. Under normal circumstances, before the start of learning, it is necessary to create a teaching situation that is consistent with the teaching content, so as to guide students to experience the realistic learning situation, so as to better construct the content. The whole learning process of the blend-teaching mode is not fixed. It is necessary to organically mix various teaching elements in the corresponding environment according to the characteristics of the learners and the teaching content.

D. Principles of learning situations

In general, different learning situations require mixing different elements. The situation here mainly refers to the integration of a learning task and the corresponding learning environment. The mixed learning situation is mainly reflected in the mixture of network multimedia technology and traditional classroom interaction environment.

In short, a good blend-teaching model needs to balance the four principles that are suitable for learners, learning content, learning process and learning situation. They should be coordinated and balanced to achieve optimal teaching effects [4].

IV. THE BLEND-TEACHING TO FURTHER IMPROVE ANALYSIS

A. Continuously improve the teaching concept of blend-teaching mode

With the continuous development of information technology, the new teaching mode based on the physical classroom, supplemented by MOOC and SPOC, and making full use of the complementary advantages of the two-blend-teaching mode, is becoming the main way of university teaching [1]. Some teachers and students lack a clear and objective understanding of the need for blend-teaching. For the new blend-teaching mode, some teachers' subjective wishes are not strong enough. Most teachers are accustomed to the familiar traditional classroom teaching methods. Some teachers seem to be somewhat uncomfortable in the face of the new blend-teaching methods. Many teachers have relatively weak skills in the use of new technologies, and basic information literacy needs to be improved. For the new blend-teaching method, teachers should change their concepts and update the ideas and ideas of teaching. University teachers should realize that the blend-teaching mode is the inevitable trend of the development of university teaching methods. It is necessary to actively change their teaching concepts, speed up the mastery of the new blend-teaching mode, and actively use the new blend-teaching methods in their own teaching process.

B. Defining course characteristics and teaching objectives in the application of blend-teaching mode

It is necessary to proceed from the mixed principle of blend-teaching mode, carefully analyze the characteristics of the course and the characteristics of learners, clarify the teaching objectives, and choose the appropriate blend-teaching methods. Especially in the blend-teaching mode, the constituent elements should also be emphasized. Online teaching should be used as an extension and supplement to offline teaching. In the implementation of the blend-teaching mode, it is necessary to carefully design the teaching objectives according to the teaching content, select the corresponding integrated teaching mode, give full play to the advantages of the blend-teaching method, and truly improve the actual teaching effect.

C. Adapt to the requirements of blend-teaching and dynamically change the role of teachers

Teachers should put their energy and time into the difficult task of teaching content and use the teaching tasks that cannot be completed by online teaching. According to the different teaching characteristics of online and offline classrooms, it is necessary to change the teacher's own role in time, and turn himself into the organizer, guide, focus and difficulty solver, assessment and evaluator of the blend-teaching mode. Always pay attention to the dynamic transformation of the role of the teacher, the transformation of teaching behavior, the improvement of teaching ability and the transformation of learning style guidance. Give full play to the important role of teachers in the hybrid teaching approach.

D. Focus on learning and information feedback, reflecting differentiation and personalization

Since the form of online learning mainly accomplishes teaching tasks through students' independent learning, compared with offline classroom teaching, teachers need to analyze and organize the data of online learning in a timely manner, and timely discover problems in online teaching and learning insufficient. Timely feedback on teaching and timely adjustment of teaching content. Since online teaching content is often pre-set in advance, although this learning method is relatively free, the content is often relatively fixed, which requires teachers to constantly adjust according to the student's learning situation, and constantly improve the content and content of the teaching. The presentation method is adapted to the students' differences and individualized learning, so as to comprehensively improve the students' learning effect.

E. Strengthen team learning and organizational learning

In the implementation of the blend-teaching mode, it is necessary to make full use of the advantages of online teaching, give full play to the characteristics of convenient Internet collaboration, conduct effective cooperative learning, strengthen the organizational construction of team collaborative learning, realize the shortcomings between students, and set up more online. Interactive content, strengthen discussion sessions, improve students' understanding of what they have learned, and achieve common progress for all students.

F. Pay attention to establishing a new type of teacher-student relationship and classmate relationship in the blend-teaching mode

In the blend-teaching mode, the teaching activities are more abundant. The interaction between students and teachers is more closely. The teachers should adapt to the changes in this teaching relationship and continuously create new teaching relationships in the blend-teaching mode. Form a good teaching relationship with students as the main body, teachers and students respect each other, learn from each other and promote each other to promote the smooth development of blend-teaching methods.

G. Pay attention to the organic mixture of teaching resources

Teaching resources are an important foundation for online learning. The organic integration of teaching resources is the key to achieving a blend-teaching model. The construction of teaching resources and the mixing of teaching resources should meet the characteristics of the blend-teaching model, and should also meet the requirements of the teaching content for the media. It is necessary to carry out a careful analysis of the presentation methods of teaching resources and teaching resources in order to realize the integrity and adaptability of teaching resources, so as to realize the scientificity and effectiveness of the blend-teaching methods [5].

H. Build a hybrid evaluation method

Teaching evaluation is an important means to promote students' active learning, and it is also a baton that leads students to study hard. In the blend-teaching mode, teaching evaluation should be composed of online and offline, and form a complete, reasonable and effective evaluation system. The assessment of learning effects should adopt a combination of process evaluation and summative evaluation, which is conducive to promoting the role of the blend-teaching model.

I. Use mainstream communication methods or e-learning platforms

In the blend-teaching mode, to achieve online learning well, the mainstream communication method should be selected to provide users with convenient access methods, such as mobile phone access-based learning. When constructing an online teaching platform, you should choose a more professional online learning platform. The online learning platform should be fully functional, and learners can get timely response and help when they encounter online learning technical problems [2].

J. Continuously strengthen network construction to adapt to the development of blend-teaching mode

The network environment conditions of the school are directly related to the realization and efficiency of the blend-teaching mode, and the teaching quality of the blend-teaching mode. Online learning has higher requirements for the network environment, and it is necessary to continuously update the software and hardware of the network environment. Ensure that the online learning platform can support the access and use of different forms of terminals, such as mobile terminals. Constantly increase the construction of virtual resources in the online learning platform, such as the construction of virtual experimental environment. Therefore, the construction of the network teaching environment is a dynamic and continuous process [6].

K. Constructing a teaching management mechanism adapted to the blend-teaching mode

Whether the blend-teaching mode can be applied widely and scientifically depends on the teaching management system. Only when the teaching management system is compatible with the blend-teaching mode can the application of the blend-teaching mode be promoted. Therefore, the school should establish a new teaching management mechanism in time to ensure The application of a blend-teaching model.

V. CONCLUSION

With the rapid development of new technologies such as modern information technology, big data, artificial intelligence, and Internet of Things, the hybrid model will inevitably become the mainstream of teaching. How to effectively integrate modern information technology into teaching and improve the scientific, rationality and effectiveness of the blend-teaching mode has become a new topic for teachers. At the same time, the blend-teaching mode of online and offline integration is also changing dynamically. These all put higher demands on learners and teachers. However, compared with the traditional teaching methods, the blend-teaching mode will greatly increase the teaching workload of the blend-teaching mode.

At present, online teaching is not a substitute for offline classroom teaching. It is only a form of change in teaching mode. It is a useful supplement to the whole teaching method and must be organically integrated with traditional teaching methods. In the blend-teaching mode, we should pay more attention to teaching cooperation, teaching design, resource construction, teaching organization and so on. In the blend-teaching, we attach importance to the cultivation of ability and quality, and finally achieve the maximum goal of teaching. Through the practice and exploration of specific course teaching, the selection and design of online and offline blend-teaching modes are rationally and scientifically selected, and effective blend-teaching methods are selected according to the teaching content. Continue to practice summarization in teaching to find a suitable way to teach the school's curriculum. Strengthen the understanding of the regularity issues in the teaching process, and continuously improve the ability of teachers to use the blend-teaching model. At the same time, we must constantly improve the management mechanism of the school's blend-teaching mode, create the best blend-teaching environment, provide mechanism guarantee and environmental support for the blend-teaching mode, and continuously improve the effectiveness and efficiency of the blend-teaching mode. Since the hybrid teaching mode is still in the application promotion stage, although this paper proposes 11 measures to improve the blend-teaching mode, since the blend-teaching mode is a systematic project, the application research of this teaching mode will continue.

REFERENCES

[1] G.Y. Chen, and W. Wu,"Construction of Courses Blend-teaching Mode in Universities under the Background of Big Data", Higher Education of Sciences. No. 6, pp. 70-74, December 2017.

[2] Z.X. Teng, M.Y. Ji, and Q.Y Guo," Design and Practice of Blend-teaching Model Based on SPOC", Heilongjiang Education(Theory & Practice). No.1~2，pp. 76-78, January 2019.

[3] Y.H Han, and S. Zai,"New Teaching Research in the Time of "Internet +"", Education Modernization. No. 26, pp. 94-96, June 2018.

[4] L.Y. Pei, "Research on the Blend-teaching Model Based on Online Courses",Master's Dissertation, Northwest University, June 2013.

[5] N. Qin, "Research on the Construction of Blend-teaching Mode under the Background of "Internet +"", Master's Dissertation, Shandong Normal University, June 2017.

[6] M.S. Piao,"The Application of "Internet +" Era Blend-teaching Mode in College Classroom", Science and Technology Innovation Herald. No. 32. pp. 235-237, November 2017.