

Exploration and Attempt of Blended Teaching in the Contexts of "Internet +"

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Abstract: On the basis of sorting out the relevant literature on blended teaching, this article combines and analyzes research on blended teaching whether domestic or foreign. From the past research studies, it was evident that blended teaching does not only effectively improve the teaching activities, but also seen as the direction of future education and teaching. Through the blended teaching mode, most scholars mainly focused on the analysis and research on the memory, understanding and mastery of learners' knowledge and the improvement of academic performance while ignoring the improvement of students' ability to analyze, evaluate and create. Moreover, how to promote the improvement of these student abilities still needs to be further studied in-depth.

Keywords: Blending Learning; Online Course; Course Design.

1. Introduction

Technology is developing faster and faster. The emergence and popularization of blended teaching has become an important part of education as a new trend in the world. Traditional teaching is based on teachers, and the teaching method is mainly used during this process. Students listen passively in a relatively simple teaching mode. There is less interaction in the classroom; the students are rarely able to take the initiative in learning. As a result, students rarely remember information after the class, and most of them only stay in the stage of memorization and understanding, and cannot reach high-level discussion and application levels, not to mention students' creativity and critical thinking, in terms of teaching evaluation. It is also common to use single evaluation form based on final exams, which cannot reflect the assessment of students' process learning. As a new teaching mode, blended teaching has created a new education mode that integrates modern technology based on traditional education concepts, making it an effective way for sustainable development and making up for the gap between teachers' teaching and students' passive acceptance of knowledge in traditional classrooms. By combining online learning resources with traditional classroom teaching, it can effectively solve the problems of limited teaching hours and large class teaching. Thus, this paper combines and analyzes domestic and foreign research on blended teaching talked four aspects: the basic concept, theoretical basis, implementation methods and application strategies.

2. Research Situation

2.1. Research Status Abroad

In order to review the literature on blended teaching, through China National Knowledge Infrastructure (CNKI). Based on the keyword search, the relevant literature was sorted out and analyzed according to the research fields and journals. Through literature research, it was found that foreign research on blended teaching started earlier, and it first appeared in the US at the beginning of the 20th century. In

corporate training, the concept was first proposed in 2000 (2017), which mentioned that online classrooms can help achieve teaching goals, but the advantages of offline classrooms cannot be replaced. "Case Study of Blended Learning" (2014) pointed out that "instructional designers should present the best media to learners to achieve maximum teaching effect". The Blended Learning Handbook (2014) describes blended teaching as: a model used in teaching which can integrate multiple methods, including traditional teaching and other methods used in teaching. Elaine Voci and Kevin Young (2001) put forward the concept of blended teaching on the basis of humanistic learning theory and constructivist learning theory.

In terms of practical application, foreign research on this teaching model is mainly carried out from the implementation, application and evaluation of the teaching process. Bernard (2017) and others created a blended teaching environment combining multiple teaching methods, and believed that flipped classrooms and distance teaching can promote student learning and improve learning efficiency. Karen T. (2019) et al. pay attention to students' personalized learning experience, take the learner as the center, create a blended teaching mode online teaching module, and promote students' personalized learning experience. Biddle (2020) designed multi-dimensional teaching activities, from classroom tests, teacher evaluation and summary, classroom teaching activities to promote students' learning effects.

Papadimitropoulos (2021) believes that this model can make students more confident, stimulate students' learning confidence, and promote the internalization of knowledge. In terms of evaluation of this model, the feasibility is mainly tested from two aspects: teacher behavior and student behavior. Smith and Kendall (2019) designed a teacher behavior evaluation scale to evaluate teachers' teaching skills, teaching design and other dimensions. In terms of student evaluation, the learning effect is mainly tested from the dimensions of classroom observation, homework completion, and knowledge transfer.

Recently, foreign researchers have mainly conducted research on blended teaching design, including teaching

methods and teaching evaluation. Among them, Rowe (2013) believes that blended teaching is student-centered, which can promote students' self-learning and self-reflection in the teaching process, and promote students' self-improvement. Two scholars, Yen and Lee (2011), put forward three characteristics of blended teaching: student-centered, rich in resources to promote interaction between students and teachers, and learning resources, forming process evaluation and summarization Combination of evaluation. Goodyear (2015) believes that blended teaching is just combined online teaching with traditional teaching, but a combination of teaching and counseling in a variety of teaching environments centered on students.

In terms of blended teaching, a lot of practice has been carried out in foreign countries, but further research is needed in terms of teaching design and strategy, teacher roles and skills, and students' learning behaviors and attitudes.

2.2. Domestic Research Status

The domestic research on blended teaching lags behind that of foreign countries. It first appeared in December 2003 by Professor He (2004) at the Seventh Global Chinese Computer Education Application Conference, pointing out that blended teaching can play the main job in traditional teaching, realize the role change of teachers' to the greatest extent, and full use of students; Professor Huang (2009) of Beijing Normal University pointed out that the process consists of four steps. Since then, there have been more and more researches on blended teaching. Zhao (2019) and others believe that this mode must transform the teacher-centered classroom into a teacher-centered classroom; Ma and Liu (2018) pointed out that in the process of designing and implementing blended teaching, factors such as academic situation, course characteristics, and teacher's ability must be considered, different teaching methods must be selected according to different teaching contents, and assessment methods should be flexible to improve teaching and learning efficiency; Chen (2018) et al. established an interactive blended teaching model; Ma (2018) et al. proposed to take the learner as the core and build a driving teaching method. With the development of blended teaching, platforms that support blended teaching have also increased. At present, there are more applications such as Chaoxing Learning Link, Rain Classroom, Cloud Classroom, Lanmoyun Class, etc. These are the development of blended teaching. Support is provided.

In terms of practice, Xie (2012) and others put forward specific suggestions for promoting the quality of blended teaching. Feng (2021) and others built a teacher's blended teaching ability development model from three aspects: principle, preparation and strategy. Based on the SPOC model, Chen (2021) carried out a mixed teaching model in the "Advertising Psychology" course, and built a multi-dimensional dynamic learning effect mechanism. Ruan and Zhan (2021) used the action research method to build a "online + offline" hybrid college English course, and used questionnaires and teamwork etc. to evaluate students' learning effects.

Although domestic research started relatively late, research on blended teaching has gradually matured in China and has been widely used in educational practice. application. According to literature analysis, it is found that domestic scholars' research on blended teaching includes these aspects: first, the concept and characteristics of blended teaching; second, blended teaching mode and design; third, research on

blended teaching cases and their application effects; the fourth is research on theoretical basis; the fifth is research on factors influencing teaching effects.

However, the quality of teachers in blended teaching and the thinking and enlightenment brought by blended teaching to educational reform and innovation need to be studied in depth.

2.3. Shortcomings of Past Studies

Generally speaking, although domestic scholars' research has just started, with the development of information technology, the blended teaching mode will become the focus of attention in the field of education step by step. In this context, the research on blended teaching in our country will gradually increase. At present, I think it can be carried out from the following three aspects. First, deepen theoretical research. It should be seen that this model is an irresistible trend in the future development prospects, and the basic theoretical research on blended teaching should be strengthened. At present, most scholars in China are concerned with the design and implementation of this teaching model, but few people are doing it. Therefore, in the future, we should pay more attention on the basic research, which will provide more theoretical guidance for the practitioners.

Second, there should be further exploration of the specific ways and methods of the implementation process. Different schools and different academic conditions determine that it is impossible to use a unified method to implement it. Every school and every teacher should be brave enough to practice, explore a teaching model that suits them, and make full use of online teaching resources to expand knowledge in online classrooms, realize deep learning, and expand the learning space of students. Blended teaching can be combined with online course resources with classroom teaching, and the use of online courses, and information technology to achieve complementary advantages. From the point of view of specific realization methods, it can be divided into two situations: one situation is to integrate advanced information means with traditional classroom teaching, and use information technology to enrich the content of traditional classroom teaching; join and use online courses to enrich traditional classroom teaching content.

Third, it is necessary to strengthen the research on the implementation process and improve the teaching effect. In the specific implementation process, different implementation strategies need to be selected according to different course types. In the actual implementation process, it will be affected by different factors. Both teachers and students will be frustrated in this process, especially teachers, who will further attack their practice of not continuing to carry out blended teaching. The main reason is because teachers' understanding of this teaching mode is not deep enough, and the ability to use this mode must be a big progress. In the future, we should continue to guide teachers to treat this teaching mode correctly, strengthen the theoretical study, and actively explore the specific application in curriculum design, curriculum development, and curriculum evaluation. Fourth, improve the quality of teachers who implement blended teaching, blended teaching will put forward higher requirements for teachers' abilities and skills, and implement the transformation of teachers' roles.

But we should also see that blended teaching is still in the stage of continuous development and improvement.

Therefore, from a macro level, we should continue to strengthen the study of blended teaching theory and practice under this guidance; from a micro level, every teacher should consciously practice blended teaching and continuously improve blended teaching. Only in this way can blended teaching go farther and longer, and can continuously promote the development of education quality.

3. Conclusion

For colleges and universities, blended teaching can not only effectively improve the teaching effect, but also will be the direction of future education and teaching, and become the mainstream of teaching. In addition to providing various facilities and guarantees, schools have also provided special training for teachers in the application of technology, which has gradually improved the level of information technology teaching for teachers. More attention will be paid to how teachers teach and how students learn. Learning problems, focusing on students' learning effects, promoting the achievement of teaching goals, making it easier to obtain data on students' learning processes, making students' process evaluations more objective, and provide bases for exploring and implementing blended learning supervision methods and provide a basis for the evaluation system. Through the blended teaching mode, most scholars mainly focus on the analysis and research on the memory, understanding and mastery of learners' knowledge and the improvement of academic performance while ignoring the improvement of students' ability to analyze, evaluate and create. Moreover, how to promote the improvement of these abilities of students through traditional teaching mode, realize the goal of deep learning, etc., still needs to be further studied in-depth.

References

- [1] Bernard P., Broś P., Migdal-Mikuli A. (2017). Influence of blended learning on Outcomes of students attending a general chemistry course: summary of a five-year-long study[J]. *Chemistry Education Research and Practice*,18(4),682-690.
- [2] BOELEN R, WEVER B D, VOET M. (2017). Four key challenges to the design of blended learning: a systematic literature review[J]. *Educational Research Review*, (22):1-18.
- [3] Chen X. F. (2021). Research on the effect of blended teaching based on SPOC mode—taking "advertising psychology" as an example. *Media Education*. (19): 80-83.
- [4] Chen Z. H., Wang D. Q., Chen M. D. & Wen G. Z. (2018). Research and practice of blended teaching mode based on knowledge construction and interactive learning. *Chinese University Teaching*. (8): 33-37.
- [5] Elaine Voci, Kevin Young. (2001). Blended learning working in a leadership development programme [J]. *Industrial and Commercial Training*, 33(5):157-161.
- [6] Feng X. Y., Guo W. R. & Song J. X. (2021). Teachers' Blended Teaching Competency Development Model: Principles, Preparations and Strategies. *Open Education Research*. 27 (05): 53-62.
- [7] Goodyear V, Dudley D. (2015). "I'm a Facilitator of Learning!" Understanding What Teachers and Students Do Within Student-Centered Physical Education Models[J]. *Quest*, (3): 274-289.
- [8] Halverson, L.,R. Graham,C.,R.,& Spring,K.J. (2014). et al. A Thematic Analysis of the Most Highly Cited Scholarship in the First Decade of Blended Learning Research[J]. *Internet & Higher Education*, 20(1):20-34.
- [9] He K. K. (2004). Viewing the New Development of Educational Technology Theory from Blending Learning (Part 1). *China Educational Technology*, (03):5-10.
- [10] Huang H. R., Ma D., Zheng L. Q. & Zhang H. S. (2009). Curriculum Design Theory Based on Blended Learning. *e-Education Research*, (01):9-14.
- [11] Karen T. Arnesen, Charles R. Graham, Cecil R. Short, Douglas Archibald. (2019). Experiences with Personalized Learning in a Blended Teaching Course for Preservice Teachers[J]. 5(3).
- [12] Luis Matosas-López, Juan Carlos Aguado-Franco, José Gómez-Galán. (2019). Constructing an Instrument with Behavioral Scales to Assess Teaching Quality in Blended Learning Modalities[J]. *Journal of New Approaches in Educational Research*. 8(2).
- [13] Ma Y., Wu Z. Z., Tan T. H. (2018), et al. Comparison and Analysis of Diagnosis Experiment Teaching Under the Background of CBL Combined with PBL Teaching Method. 10(10):23-15.
- [14] Michael A.Biddle, Rebecca M. Hoover. Teaching motivational interviewing in a blended learning environment[J]. *Currents in Pharmacy Teaching and Learning*,2020.
- [15] Negricea C I, EDUT, AVRAM E M. (2014). Establishing influence of specific academic quality on studentsatisfaction[J]. *Procedia-Social and Behavioral Sciences*, 1-16.
- [16] N. Papadimitropoulos, K. Dalacosta, E. A. Pavlatou (2021). Teaching Chemistry with Arduino Experiments in a Mixed Virtual-Physical Learning Environment[J]. *Journal of Science Education and Technology*, (prepublish).
- [17] Ruan X. L. & Zhan Q. W. (2021). An Action Research on the Blended Teaching Model for College English Course. *Technology Enhanced Foreign Language Education*. (05): 101-106+15.
- [18] Rowe M, Frantz J, Bozalek V. (2013). Beyond knowledge and skills: the use of a Delphi study to develop a technologymediated teaching strategy[J]. *BMC medical education*, (1):51.
- [19] Xie X. S. & Zhu Z. L. (2012). Factors Influencing Blended Teaching Quality at Higher Education Institutions. *DISTANCE EDUCATION IN CHINA*. (10): 9-14+95.
- [20] Yen J. & Lee C. Y. (2011). Exploring Problem Solving Patterns and Their Impact on Learning Achievement in A Blended Learning Environment. *Computers & Education*, (1):138-145.
- [21] Zhao W. J. (2019). Research on the carrier and platform construction of practical education, innovation and entrepreneurship in colleges and universities. *The Theory and Practice of Innovation and Entrepreneurship*, 2 (12): 73-74.