

Research on Strategies to Improve Students' Adaptability to Blended Learning Based on Teaching Activity Design

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Abstract: Blended learning has become a widely used form in modern education. The frequent shift between online and offline settings in blended learning may bring students a series of maladjustment problems, including excessive cognitive load, lack of learning autonomy and social isolation. It is essential to improve students' adaptability to guarantee the quality of blended learning. This paper analyzes the connotation of learning adaptability and explores in depth the strategies of teaching activity design oriented to enhancing students' adaptability to blended learning, so as to provide reference for teaching practice.

Keywords: Blended Learning; Adaptability; Teaching Activity; Design

1. Introduction

With the rapid development of information technology, education has stepped into a stage of digital transformation. Online-offline blended learning has turned into a normalized teaching model. Blended learning supports students to carry out online learning and helps realize personalized learning for individual students. At present, some students show poor performance in blended learning, such as insufficient learning depth and disordered time management, which reflects low learning adaptability and makes it hard to achieve ideal learning outcomes. Teaching activity design has a direct impact on the effectiveness of blended learning. Teachers need to design teaching activities in a scientific way according to students' individual differences, so as to improve students' adaptability to blended learning with diversified and targeted teaching activities.

2. Overview of Adaptability to Blended Learning

Learning adaptability means that students take the initiative to adjust their behavioral habits,

cognitive strategies and emotional states when learning requirements, learning environment and learning methods change, so as to maintain effective learning^[1]. Under the blended learning model, adaptability covers multiple dimensions, which are shown as follows:

First, self-adaptability at the technical and spatial level. Students need to switch between offline classrooms and online virtual learning platforms in the learning process. They should accept learning in different spaces psychologically, learn and master the basic operation of various online learning tools, and avoid cognitive interference caused by technical problems.

Second, self-adaptability at the time and rhythm level. Blended learning is divided into two rhythms: offline synchronous learning and online asynchronous learning. Offline synchronous learning calls for students' quick response and synchronous participation, while online asynchronous learning requires students to have strong time management and independent planning skills. Students need to balance the two learning rhythms and allocate learning time properly based on learning task requirements.

Third, self-adaptability at the interaction and role level. Students have to switch their learning roles in online and offline scenarios. In offline learning, students mainly act as speakers and listeners. In online learning, students mainly act as problem responders and writers. Flexible role switching helps students fully engage in learning in different scenarios.

3. Teaching Activity Design Strategies Oriented to Improving Students' Adaptability to Blended Learning

3.1 Construct Progressive Situations

Teachers design teaching situations carefully and build progressive transition situations for students, so that students can connect online and offline learning content smoothly. The key of

this strategy is to design special teaching activities to help students form a gradient learning path and guide learning through step-by-step introductory activities^[2]. A core learning task that integrates online and offline teaching is designed to help students quickly grasp the learning focus no matter they study online or offline, and reduce the sense of confusion caused by scenario switching.

For example, after finishing online learning tasks, teachers guide students to summarize their learning puzzles in one sentence and share puzzles and solutions with peers in offline class activities. After offline class discussion, teachers design an online preview question that only requires thinking instead of hands-on operation based on the discussion content. Transitional learning tasks between online and offline teaching help students adapt to scenario shifting naturally.

At the same time, teachers design a visualized unit activity flow chart to clearly show the sequence, duration and connection of knowledge modules in online and offline activities. It helps students sort out the core content of online and offline teaching quickly, avoid confusion caused by unclear teaching arrangements, build confidence in participating in teaching links, and switch learning scenarios calmly. Reasonable situations designed by teachers turn blended learning into a predictable and controllable process, which lays a foundation for improving students' learning adaptability later.

3.2 Establish Cognitive Scaffolds

Blended learning environment may bring high cognitive load to students. While learning textbook knowledge, students also have to deal with information screening, technical operation and task switching. When cognitive load exceeds the memory capacity of the brain, students are likely to suffer from learning maladjustment^[3]. Therefore, teachers should help students build cognitive scaffolds in teaching activity design to reduce their cognitive burden.

First, teachers need to optimize learning guides for students. Traditional learning guides only list key learning points, which cannot provide students with clear learning paths. In blended learning, students need to know how to adapt to content changes and carry out self-directed learning. Teachers design two-column learning guides: one column lists key content points, and the other lists corresponding learning strategies,

such as "After reading this section, raise your own questions before moving on" and "After watching the teaching video, describe the main idea in your own words". These strategies guide students to improve blended learning efficiency step by step.

Second, teachers can prepare interactive sentence patterns for class communication in advance, such as "I hold a different view on... because..." and "According to the discussion, I think the key point of this section is...", to encourage students to use these expressions in offline discussions or online forums. Cognitive scaffolds built with interactive expressions help develop students' expression and thinking abilities, help students adapt to online and offline interaction quickly, and keep students focused on learning.

3.3 Conduct Cooperative Inquiry

Single offline lecturing and online individual learning may make students feel isolated and hard to integrate into the group, so that they cannot adapt to blended learning^[4]. Teachers need to design cooperative inquiry activities elaborately to develop students' social interaction ability, help students acquire adaptation strategies in activities and enhance learning resilience.

First, teachers can set up heterogeneous asynchronous cooperation groups with 3-4 members each, including students with different levels of learning adaptability. Each group is assigned learning tasks that require joint exploration. For example, student A is responsible for extracting core content points, student B for searching counterexamples, student C for making knowledge concept maps, and student D for recording explanatory audio. In multiple blended learning activities, teachers ask group members to rotate roles and take different tasks. Students with poor adaptability can observe learning methods of peers in group cooperation and improve their adaptability gradually.

Second, teachers establish a scientific "trace-retention and review" discussion mechanism. Teachers guide students to respond to others' viewpoints with marked expressions in the online discussion area, such as "I agree with your view on..., but more evidence is needed to support it", so that all discussion content forms a traceable clue chain. When organizing offline class discussions, teachers can directly quote

viewpoints from the online area, which avoids repeated expression online and offline and provides thinking guidance for students who are not good at impromptu speaking.

3.4 Implement Adaptive Feedback

Adaptability is a kind of ability gradually formed when students continuously take part in learning activities, reflect on their own behaviors and make adjustments. Teachers should create a dynamic adaptive feedback mechanism in teaching activity design, use effective feedback to boost the development of students' adaptability, and help students continuously improve their behavior patterns in blended learning^[5]. Traditional feedback mainly focuses on judging the correctness of learning results. Blended learning changes the feedback mechanism, and specific strategies are shown as follows:

First, adopt learning behavior logs combined with structured reflection. Teachers require students to write a learning log within 3 minutes after completing each blended learning task, including difficulties in this learning and improvement directions for next time. Teachers collect and analyze problems mentioned in logs, and explain solutions to frequent problems in the next class introduction to help students get out of learning trouble.

Second, create an adaptive task channel through online platforms. Students have different knowledge foundations and cognitive abilities. To make adaptive learning tasks fit students' zone of proximal development, teachers do not force all students to finish the same online tasks at the same time^[5]. Teachers can design "compulsory learning tasks" and "extended learning tasks", encouraging students to complete extended tasks when they finish compulsory ones with spare energy. Meanwhile, teachers suggest students do offline activities such as "outlining" and "drafting" after 30 minutes of online learning.

Finally, teachers regularly announce students' progress in adaptive training, for example, student A's switching time between online and

offline tasks reduced from 3 minutes to 1 minute. The adaptive task channel meets the learning needs of different students and achieves good effects in adaptive training.

4. Conclusion

In general, the smooth implementation of blended learning activities requires teachers to cultivate students' adaptability first. Teachers can help students find a suitable learning path in blended learning and adapt to the switching rhythm of online and offline teaching by constructing learning situations, building cognitive scaffolds, carrying out cooperative inquiry and using adaptive feedback mechanisms, so as to comprehensively improve students' adaptability to blended learning.

References

- [1] Zhang Yazhen, Huang Li. Research on Blended Learning Activity Design Based on Component Display Theory — Taking Modern Educational Technology as an Example[J]. *Research and Practice on Innovation and Entrepreneurship Theory*, 2025, 8(14): 163-165.
- [2] Xie Shumin, Zhuo Wenhao. Construction and Application of Blended Learning Model Supported by Intelligent Technology[J]. *Computer & Telecommunication*, 2024(05): 26-30+37.
- [3] Zhuang Huan. Design and Implementation of Blended Learning Activities under the Background of MOOC—Taking the Higher Vocational Course Basic Computer Application as an Example[J]. *Office Automation*, 2023, 28(11): 27-29+57.
- [4] Wang Weili. Research on Strategies to Improve Students' Adaptability to Blended Learning Based on Teaching Activity Design[J]. *Vocational Technology*, 2022, 21(09): 103-108.
- [5] Chen Heng. Research on Strategies to Improve Students' Learning Internal Drive in Design Software Courses under the Blended Teaching Mode[J]. *Screen Printing Industry*, 2025(7): 105-107.