

Research on Cultivating Critical Thinking among College Students Based on Blended Learning

Lyu Huan^{1,2}, Ch'ng Lay Kee^{1,*}, Zhong Fangde³

¹*Faculty of Education and Liberal Studies, City University Malaysia, Petaling Jaya, Selangor, Malaysia;*

²*Department of Early Education, Sichuan Preschool Educators College, Mianyang, Sichuan, China;*

³*Department of Basic Education, Mianyang City Bureau of Education and Sports, Mianyang, Sichuan, China*

Abstract: In this era of information explosion, critical thinking has become essential for college students to adapt to society. For college students, critical thinking can not only help them better understand and master knowledge but also improve their innovation and problem-solving abilities. However, effectively cultivating critical thinking among college students is a significant challenge. In recent years, blended learning, as a new teaching model, has provided new possibilities for cultivating critical thinking among college students. Universities can adopt diversified teaching methods, provide abundant learning resources, establish effective feedback mechanisms, and cultivate the self-learning ability of college students. This helps cultivate critical thinking among college students and promotes comprehensive development.

Keywords: Blended Learning; Developing Critical Thinking Skills; College Student

1. Introduction

Blended learning is a new teaching model combining online and traditional face-to-face teaching. This teaching model aims to provide a flexible, personalized, and efficient learning environment by integrating online and offline teaching resources and methods. In this mode, college students can learn through various means, such as reading, discussion, and practice. This gives them more opportunities for thinking and exploration, which helps cultivate their critical thinking. Critical thinking, also known as critical thinking or analytical thinking, is a rational, objective, independent, and in-depth way of thinking. It requires us to understand and accept problems

and viewpoints and to conduct in-depth analysis and evaluation to form our own opinions and judgments. [1]

2. Adopting Diversified Teaching Methods

In blended learning mode, teachers can stimulate college students' curiosity and thirst for knowledge by adopting diverse teaching methods, thereby cultivating their critical thinking. Teachers should not only attach importance to imparting knowledge but also focus on cultivating college students' analytical and problem-solving abilities.

Firstly, problem-solving is one of the essential links in cultivating critical thinking among college students. For this, teachers can design challenging questions that allow college students to think, analyze, and evaluate various solutions during problem-solving. Through such training, college students can develop independent and innovative thinking while improving their problem-solving abilities. Secondly, case analysis is also an effective method for cultivating critical thinking among college students. Teachers can choose practical cases to help college students understand and solve problems through analysis and discussion. In this process, college students must apply their knowledge and experience to conduct in-depth thinking and analysis of cases to cultivate their critical thinking. Finally, group discussions are also necessary to cultivate critical thinking among college students. Teachers can divide college students into small groups and allow them to engage in free discussions and cooperation within the group. Through communication and interaction, college students can think about problems from different perspectives, broaden their thinking breadth, and improve their critical thinking abilities.

3. Providing Rich Learning Resources

Teachers can provide rich learning resources in blended learning mode, such as micro lessons, e-books, academic papers, etc. This can allow college students to be exposed to different perspectives and information, thereby cultivating their critical thinking. Combining online and offline blended learning models can provide college students with abundant learning resources.

Rich learning resources can provide different perspectives and information. In traditional educational environments, college students can only access one viewpoint or information. This limits their thinking to some extent. However, abundant learning resources can allow college students to be exposed to various perspectives and information. In this way, college students can think about problems from multiple perspectives, thereby cultivating their divergent thinking. Secondly, abundant learning resources can enhance the autonomous learning ability of college students. [2] In traditional educational environments, teachers transmit knowledge, while college students are passive recipients. However, among the abundant learning resources, college students must find and filter helpful information independently. This requires them to have the ability to think independently and make judgments. Through this approach, the autonomous learning ability of college students has been improved, and critical thinking has also been exercised. Furthermore, abundant learning resources can stimulate the learning interest of college students. College students often feel bored and bored with their studies in traditional educational environments. This is because the knowledge and information they are exposed to are too limited. However, among the abundant learning resources, college students can find content that interests them, stimulating their interest in learning. When the intrinsic drive of college students to learn is stimulated, they will be more willing to think and explore, thereby cultivating critical thinking. Finally, abundant learning resources can enhance the problem-solving ability of college students. In traditional educational environments, college students often only follow the teacher's instructions to solve problems, which, to some extent, limits their thinking ability. However, facing abundant learning resources, college

students need to acquire helpful information and find solutions to problems independently, which requires them to possess critical thinking. Through this approach, the problem-solving ability of college students has been improved, and their critical thinking has also been exercised.

4. Establishing an Effective Feedback Mechanism

Establishing an effective feedback mechanism in the context of blended learning is crucial. Teachers need to understand the learning situation of college students promptly and provide guidance to cultivate their critical thinking. Specifically:

4.1. To Provide Timely Feedback

Providing timely feedback is an important part of cultivating critical thinking. Critical thinking should be gradually cultivated and developed through practice. Therefore, teachers should provide timely feedback during the teaching process to help college students understand whether their thinking methods are correct and provide suggestions for improvement.

4.2. To Provide Specific Feedback

The feedback content should be specific, not general. Teachers should point out the strengths and weaknesses of college students in their thinking process and provide suggestions for improvement. In this way, college students can clearly understand their problems. In the process of providing feedback, teachers need to ensure the detail and specificity of the content. This means that we should not only provide vague evaluations but also delve into the thinking process of college students, identifying their strengths and weaknesses. [3]

4.3. To Provide Constructive Feedback

The purpose of feedback is to help college students improve, not to criticize them. Therefore, the feedback from teachers should be positive. Teachers should encourage college students to try different methods during the thinking process rather than unthinkingly pursuing the correct answer.

Firstly, teachers should encourage college students to try different methods of thinking about problems. Teachers should give college students enough freedom to explore and try various solutions. Through this approach, it is

possible to cultivate the flexibility of college students' thinking, learn to think about problems from different perspectives, and better cope with complex challenges. Secondly, teacher feedback should focus on guiding college students on how to improve. When college students express incorrect opinions, teachers should not simply point out the mistakes but provide specific advice and guidance to help college students find the right direction. This way, college students can learn from their mistakes and improve their critical thinking. In addition, teacher feedback should also focus on stimulating the learning interest and motivation of college students. Teachers can motivate college students to continue their efforts by acknowledging their timely progress. Meanwhile, teachers can provide additional resources and challenges, allowing college students to further expand their knowledge and skills. [4]

4.4. To Provide Repeated Feedback

Cultivating critical thinking is a long-term process that requires repeated feedback and correction. Teachers should regularly provide feedback on college students' thinking processes, allowing them to adjust their thinking methods and cultivate critical thinking constantly.

5. Cultivating the Self-Learning Ability of College Students

Critical thinking ability refers to the ability of students to analyze problems independently, form their viewpoints, and deeply explore and evaluate these viewpoints. Self-learning ability refers to the ability of students to acquire, process, and apply knowledge independently. This ability helps students better adapt to the development of society but also enhances their critical thinking ability. Teachers can adopt the following methods to cultivate students' self-learning ability and improve their critical thinking:

On the one hand, teachers can teach students how to search and evaluate information effectively. In this era of information explosion, students face a massive amount of information, and filtering out helpful information has become essential. It can help students master this skill, and teachers can use the method of example teaching.

Through the analysis and discussion of

practical cases, teachers should demonstrate to students how to use various tools and resources for information search. For example, teachers can guide students to use resources such as search engines, library databases, academic journals, etc., to help them find information related to their learning topics. At the same time, teachers can also teach students how to use techniques such as keywords and filtering criteria to find the required information quickly. [5] In addition to information search, teachers can teach students how to evaluate and filter the information they find. For example, teachers can guide students to pay attention to the sources of information, the qualifications of authors, research methods, and other aspects, helping them judge the authenticity and credibility of information.

On the other hand, teachers can also teach students to compare information from different sources to obtain more comprehensive and accurate knowledge.

Firstly, teachers can guide students to develop reasonable learning plans based on teaching objectives and actual situations. Through learning situation analysis, teachers can understand each student's learning needs and goals, thereby helping them develop learning plans tailored to their individual circumstances. This helps students better plan their learning content and time and stimulates their learning motivation and interest. Secondly, teachers can teach students how to learn according to the learning plan. Students often face various confusions and interferences during the learning process, which can easily distract their attention or lose direction. [6] For this purpose, teachers can help students master skills to improve learning efficiency by teaching-learning methods and techniques. For example, teachers can teach students how to arrange their study time reasonably, set learning goals, break down tasks, and review and summarize. Mastering these methods and techniques will help students follow their learning plans and improve their learning outcomes. Finally, teachers can regularly track students' learning progress and provide them with guidance and support. [7] Through communication and feedback with students, teachers can understand their problems and difficulties during the learning process and provide timely assistance and answers. At the same time, teachers can adjust and optimize

their learning plans based on students' learning situations, ensuring that they can maintain continuous motivation and enthusiasm for learning.

6. Conclusion

In summary, blended learning provides new possibilities for cultivating critical thinking among college students. By adopting diverse teaching methods, providing abundant learning resources, establishing effective feedback mechanisms, and cultivating students' self-learning abilities, critical thinking can be effectively cultivated among college students.

Acknowledgments

This paper is supported by Mianyang Federation of Social Sciences Municipal Social Science Research Planning Project, Early Childhood Education and Development Research Project, A Study on Career Loyalty of Early Education Graduates -- A Case Study of Sichuan Primary School (SCYJ2023YB08)

References

- [1] Qu Yanpeng, Liu Yan, Chen Songying, et al. Discussion on Classroom Questioning and the Cultivation of Thinking Ability among Engineering College Students [J]. Education and Teaching Forum, 2021 (17): 173-176
- [2] Li Na, Han Qing'en, Zhong Wenxian. Analysis of the Current Status and Differences of Critical Thinking Quality among College Students: A Survey and Research Based on Shandong Province [J]. China Higher Education Research, 2019 (2): 49-52
- [3] Qin Zuzhi, Pan Yuanfeng, Xie Xinling, et al. Exploration of Cultivating Innovative Chemical Talents in Local Universities under the Background of New Engineering [J]. Guangzhou Chemical Industry, 2022, 50 (14): 225-227
- [5] Leng Jing, Huang Dan. Online Discourse Analysis of Critical Thinking Among College Students Based on LSA [J]. China Educational Technology, 2019 (4): 70-78
- [6] Terblanche, E. A. J. & Clercq, B. D. Factors to Consider for Effective Critical Thinking Development in Auditing Students[J].South African Journal of Accounting Research, 2019(10):1-19.
- [7] LOYALKAP, LIUOL, LIGR, et al.Skill Levels and Gains in University STEM Education in China, India, Russia and the United States[J].Nature Human Behaviour, 2021(7):892-904.