DOI: 10.53469/jerp.2025.07(05).18

A Study on the Application of PBL Teaching Method in the Course of Principles of Education under the Background of Multiple Majors

Baolin Zhang

Faculty of Education, Guangxi Normal University, Guilin, Guangxi, China

Abstract: ***This paper focuses on the application of PBL teaching method in the course of "Principles of Education" in the context of multiple majors. The beginning details the evolution of research on educational principles in my country, as well as the key position and significance of this course in the pedagogy discipline system. Then, the PBL teaching method is interpreted in depth, its core connotation of problem-oriented and student-centered is explained, and the necessity of applying it to the "Principles of Education" course is analyzed. This article focuses on the practical application of PBL teaching method in the teaching of "Principles of Education" course, and deeply explores the application value of PBL teaching method in this course. The research results show that the PBL teaching method is highly consistent with the requirements of the "Principles of Education" course, which can significantly improve students' understanding of educational theory, enhance students' ability to apply theory to practice, and provide strong support for improving the quality of education and teaching.***

Keywords: Diverse professional background, PBL teaching method, Principles of Education Course**.**

1. Introduction

Since the 1950s, China has introduced the book "Principles of Education" from the former Soviet Union. However, there are certain deviations and errors in the book from basic concepts to the construction of the entire system. China did not really start to study educational theory until the 1970s and 1980s. Due to the long-term lack of in-depth research and reflection on educational theory, people's correct understanding of education and the impact on solving practical problems in education at that time were affected by it. There were widespread misunderstandings and abuses, and some unpredictable problems would emerge when applied to educational practice [1]. Until human society was about to enter the 21st century, Chinese scholars believed that the educational theory community needed to have a reflective sorting and construction of pedagogy from concepts, theories to content and systems. We should conduct a deep reflection from the source of theory, change our inherent one-sided concepts and understandings of education, and build subject content and systems related to the principles of education. For example, Professors Cheng Youxin, Hu Dehai, Wang Daojun and others have successively published the book "Principles of Education". Although these different versions of the book were written by different authors, they are all the result of overall thinking and re-examination of pedagogy. They constructed the principles of education based on the compiled chapter contents, and also showed unique and insightful thinking on various aspects of the issues involved in the principles of education. They also put forward their own innovative and unique insights on many issues. This innovation also reflects the academic value and charm of the monograph, and establishes its academic status in promoting and prospering my country's educational research.

Professor Hu Dehai once compared "principles of education" to a "guide map" for learning and studying pedagogy. He believed that pedagogy is a vast and boundless academic field, and it is an unfamiliar field for beginners. Therefore, one must learn the principles of education to get started. As one sorts out and masters various basic relationships and theoretical issues, one can enter the hall and understand its profound meaning. Otherwise, one will always linger outside the door of this academic hall. Therefore, the principles of education are not only the study of the universal laws of education, but also the professional basic theories guiding various specific educational disciplines. It is crucial to the development of pedagogy as a whole, and it is also something that anyone who studies or researches pedagogy cannot avoid [2].

By studying the principles of pedagogy, we can first build a systematic and solid theoretical knowledge framework for education for students, so that they can deeply understand the core concepts such as the nature, purpose, and function of education, and clarify the basic laws behind educational activities. Through learning, students can master scientific educational methods and principles, thus providing strong theoretical support for future educational work. At the same time, it also helps to cultivate students' educational research ability, so that students can learn to use various research methods to analyze educational phenomena and solve educational problems, and finally be able to comprehensively apply the knowledge they have learned to solve practical educational problems, turning theory into practice, and applying what they have learned. Contribute to academic exploration and practical improvement in the field of education. It can also guide students to establish correct educational concepts, deeply understand the value and significance of education, and encourage them to actively participate in the cause of education, laying a solid foundation for promoting educational development and promoting the all-round growth of students. With the continuous prosperity and development of China's education cause, "Principles of Education" as a secondary discipline, in school teaching practice, and through the "Principles of Education" course to implement, the discipline at this time is transformed into a specific course name. Therefore, "Principles of Education" is both a secondary discipline and a course in teacher education. In other words, "Principles of Education" is not only a

professional basic course for undergraduate students majoring in education, but also a compulsory course for graduate students (master and doctoral) in the Faculty of Education related to education majors. It is the most basic introductory course for studying education majors.

2. Overview of PBL Teaching Method

2.1 The Basic Connotation of PBL Teaching Method

PBL teaching method is a problem-oriented learning method that emphasizes student-centeredness, creates real and complex problem situations, and guides students to learn independently. Students explore around the problem, independently determine learning goals, obtain resources, and solve problems together through group collaboration. In the process, they integrate knowledge, cultivate critical thinking and innovation, and other comprehensive qualities, so that students can learn knowledge and develop various abilities.

2.2 The Necessity of Applying PBL Teaching Method in the Teaching of Principles of Education

The course "Principles of Education" actually includes a large number of rich educational concepts and theoretical knowledge, so college teachers basically adopt the teaching method of indoctrination. In the long run, students will fall into a passive learning state and gradually become bored [3]. In order to change this negative phenomenon, the case teaching method was introduced later. Although it has innovated the teaching method to a certain extent, it also has some problems. For example, from the current implementation effect, because case development is the top priority of case teaching method application. However, the development and compilation of excellent cases cannot simply stay on the surface, but need to deeply explore its connotation and expand from multiple perspectives. Therefore, the play of collective wisdom still needs to be improved, and the joint efforts of the teaching team to study teaching cases also need to be strengthened. Therefore, this work needs to be continuously polished. This paper explores the application of PBL teaching method in the teaching of principles of education course, aiming to deeply understand how problem-oriented teaching method can be effectively applied to the principle of education course to meet the needs of students of different majors, which has important significance such as enriching teaching method theory, improving the teaching quality of principles of education course, and cultivating students' professional practical ability and critical thinking [4].

2.3 The Origin and Development of PBL Teaching Method

The PBL teaching method was first proposed by American educator Bruner in the 1950s, and was first created by American neurology professor Barros at McMaster University in Canada in 1969. The PBL teaching method was actually first applied to the field of medical education. In the 1960s, in order to solve the problem of the disconnection between traditional medical education and practice at that time, Barros introduced it into medical teaching, allowing students to solve practical problems to improve their self-cognition, autonomous learning ability and expression ability. It is usually centered around clinical cases or medical problems, and teaching is organized around this. Students work in groups, collect information for problems, fully discuss and communicate within the group, and then analyze and solve problems. In this process, students need to integrate a variety of knowledge, jointly solve the difficulties encountered, and finally summarize and report. Through this teaching method, students can not only deepen their understanding and mastery of medical knowledge in the process of solving practical problems, but also effectively cultivate clinical thinking ability, teamwork ability, autonomous learning ability and communication and expression ability, so as to better realize the connection between theoretical knowledge and clinical practice. The PBL teaching method has thus become a new teaching model. The PBL teaching method has developed rapidly in North America since the 1980s, and has gradually been extended to different disciplines in more universities, including but not limited to colleges of education, business schools, engineering schools, art and design majors, etc. Today, the PBL teaching method has become a relatively mature and popular teaching method internationally.

In my country, the application of PBL teaching method is still in the development stage. With the emphasis on comprehensive quality education and the advancement of education reform, it is expected to be more popularized and applied. The characteristics of PBL teaching method include taking problems as the starting point of learning, and the students' learning content is based on problems. In the process of raising questions, analyzing problems, and solving problems, the basic knowledge of the subject is gradually internalized, and active learning can stimulate students' desire for knowledge. The application of PBL teaching method not only enriches the traditional teaching model, but also effectively cultivates students' autonomous learning initiative, independent thinking ability and exploration spirit. Therefore, teachers should pay more attention to the application of PBL teaching method in the teaching of the principles of education course. In completing the problem-oriented learning goals, it is indispensable to learn the application of basic course knowledge. In this way, due to the relevance of the design, students also learn to integrate with their own majors. Therefore, the application advantages of PBL teaching method will reflect better teaching effects.

3. Practice of PBL Teaching Method in the Teaching of Principles of Education

The study of the application of PBL teaching method in the teaching of Principles of Education course is based on the background of multiple majors. The reason is that Principles of Education is a basic course. Whether it is at the undergraduate or graduate level, as long as it is related to the major of pedagogy, Principles of Education is a compulsory course. So after the division of different majors, when studying this course, how can we truly understand the connection and application of the knowledge theoretical framework of Principles of Education and the development of our own professional field? In the journey of building a professional building, basic knowledge is like a rock-solid foundation. Only by building a solid foundation first can we

carry the towering building of the professional knowledge system and lay a strong foundation for in-depth exploration and meticulous research in the professional field, so that it can flourish and become a shade [5].

3.1 Application of PBL Teaching Method in the Teaching of Principles of Education Course

The PBL teaching method here does not mean that this method is used to teach the entire class in the Principles of Education class, but that it is applied to a part of the teaching process. After the teacher has finished explaining the basic theoretical knowledge content of a chapter, in order to deepen learning or to allow students to construct knowledge and achieve the effect of active learning application, the PBL teaching method is adopted. Through problem design, students from different majors can participate in the learning, turning passive learning into active learning, and finally they can really learn something.

3.1.1 Question selection and design

Core questions based on professional relevance are proposed: teachers or students design a series of core questions that revolve around educational principles and are closely related to their respective majors. For example, from the perspective of higher pedagogy, in the process of internationalization of higher education, how can we build a cross-cultural curriculum system and teaching model based on educational principles to improve the quality of education and international competitiveness? From the perspective of educational economics and management, how can we use educational principles to optimize the allocation of educational resources to maximize educational benefits, especially in the context of the current booming online education? Students majoring in comparative pedagogy should think about the similarities and differences between educational principles reflected in the educational policies of different countries, and how these similarities and differences affect the application and promotion of educational technology in various countries? Students majoring in ethnic pedagogy can discuss how to integrate ethnic cultural characteristics with educational principles to develop a special educational practice model suitable for ethnic minority areas? For educational technology majors, how can we design an intelligent learning environment based on educational principles to promote students' personalized learning and effective knowledge construction? These questions can guide students to explore educational principles in depth and naturally connect with their own majors.

3.1.2 Group building

PBL teaching is usually conducted in small groups and is problem-oriented. Group assignments can be divided into groups based on the same or different majors, which helps to cultivate students' teamwork spirit and communication skills. In the course of "Principles of Education", students come from different backgrounds and may have different views on educational issues. In the process of group cooperation to solve problems, such as "How to carry out school moral education in a multicultural context", students can share their views and experiences, learn from each other, and jointly improve their understanding and application of educational principles. In the group cooperation mode, each member is responsible for analyzing problems and collecting information to form unique insights. In the process of continuous in-depth analysis of problems and exploration of solutions, members actively carry out discussions and exchanges, inspire each other, complement each other, let multiple thoughts collide and blend with each other, and gradually converge into a comprehensive and systematic overall result. In this way, through problem decomposition, each member can apply educational principles and integrate their own professional knowledge in the process of problem solving. This process not only fully demonstrates the value and role of individuals, but also vividly demonstrates the powerful power and infinite wisdom contained in teamwork. During students' independent learning and group discussions, teachers provide timely inspiration to help students integrate different professional knowledge with educational principles. Students are encouraged to propose innovative strategies. Students can learn more about the application of educational principles in different professional backgrounds, broaden their horizons, and promote the transfer and integration of knowledge.

3.1.3 Classroom achievement presentation

Students use different ways to present their results to fully reflect the characteristics and advantages of different majors. For example, the research report is presented using intelligent multimedia to create PPT. Visually impactful data, pictures or short videos are used to introduce the importance and urgency of the research problem in the current situation, and its close connection with the professional field and the broader social background is explained. The core professional theoretical knowledge points in the principles of education used in the research process are systematically explained, and how these theories support the analysis of problems from different dimensions is explained in detail. With relevant classic cases or cutting-edge research examples, the relationship and application logic between theory and practical problems are explained in an easy-to-understand way. The solutions or optimization strategies proposed for the problems are elaborated in detail point by point. Each point is closely combined with professional theories to explain its basis and rationality, reflecting the feasibility and innovation of the strategy. A reasonable outlook is made on the future development trend of the research problem to promote deeper discussion and knowledge sharing.

3.1.4 Effect evaluation and reflection

Establish a comprehensive evaluation system to comprehensively evaluate students' performance in the PBL teaching process. Evaluation indicators include multiple dimensions such as understanding and application of the knowledge of educational principles, integration of professional knowledge, teamwork ability, problem-solving ability, and results display effect. Students with different professional backgrounds are encouraged to participate in the evaluation process. Through mutual evaluation, students can learn and draw on the advantages of others from different professional perspectives, and further promote the exchange and integration of cross-professional knowledge. Teachers

should pay attention to feedback in the evaluation process, provide specific suggestions and improvement directions for the performance of each student and group, and help students continuously improve their ability to apply educational principles to solve problems in their own professional environment. According to the evaluation results, teachers will provide students with detailed feedback information in a timely manner, affirm the advantages, point out the existing problems and deficiencies, and put forward suggestions for improvement. Students reflect on their learning process and results based on feedback, summarize experiences and lessons, and further deepen their understanding and application ability of educational principles. After completing a series of PBL teaching activities, teachers guide students to systematically sort out and summarize the knowledge of educational principles they have learned. The scattered knowledge involved in solving each problem will be integrated to form a complete knowledge system, which will help students clarify the internal connection between knowledge and deepen their overall understanding of educational principles. At the same time, teachers can also adjust and optimize question design, teaching resource provision, guidance methods, etc. according to students' feedback and actual teaching conditions to prepare for the next PBL teaching activity.

4. The Application Value of PBL Teaching Method in the Course of Principles of Education

4.1 Stimulate Students' Initiative and Enthusiasm in Learning

The PBL teaching method is problem-oriented and puts students at the center of the problem situation. For example, when teachers raise practical educational issues such as "how to consider the reality or long-term development of education from their own professional perspective", students need to actively consult materials, analyze problems, and propose solutions. This method greatly stimulates students' curiosity and thirst for knowledge, allowing them to change from passively accepting knowledge to actively exploring knowledge, and improve their learning autonomy and intrinsic motivation. Students will be more engaged in the process of solving problems and actively think about various possibilities, thereby deepening their understanding and mastery of the knowledge of educational principles.

4.2 Effectively Cultivate Students' Practical Ability

The PBL teaching method emphasizes the authenticity and situational nature of the problem, and requires students to use the knowledge they have learned to solve actual educational problems, which helps to exercise students' practical ability. In the process of solving problems, students need to conduct demand analysis, program design, implementation and evaluation like educators. For example, when discussing the issue of "how to improve the quality of education in rural areas", students may need to have an in-depth understanding of the current situation of rural education, analyze the existing problems and their causes, and then propose and implement feasible improvement strategies. In this process, they cultivate in-depth research capabilities, exercise problem analysis capabilities to analyze existing problems and their causes, improve strategy formulation and execution capabilities to propose and implement improvement strategies, accumulate practical experience, and enhance their adaptability to future educational work.

4.3 Promoting the Integration and Transfer of Knowledge

The problems in PBL teaching methods are usually comprehensive and complex, and students need to integrate knowledge from all aspects of educational principles to solve them. For example, a question about "how to build an effective school moral education system" involves theoretical knowledge of educational objectives, educational subjects (students and teachers), educational content, educational methods, educational environment, etc. In the process of solving problems, students can not only deepen their understanding of individual knowledge points, but also establish connections between knowledge, form a complete knowledge system, and learn to transfer the knowledge they have learned to different situations, flexibly use knowledge to solve new problems, and improve their ability to apply knowledge.

4.4 Develop Critical Thinking and Innovation Skills

In the PBL teaching process, students need to conduct in-depth analysis of problems, evaluate the advantages and disadvantages of various solutions, and come up with innovative ideas. Students will be exposed to different viewpoints and ideas in group discussions, and through mutual communication and debate, they will constantly reflect on and improve their ideas. This helps to cultivate students' critical thinking and innovation abilities, enabling them to continuously explore and innovate educational practices in their future educational work.

4.5 Improve Teamwork and Communication Skills

PBL teaching method is usually carried out in the form of group cooperation. Students work together in groups to complete tasks. In this process, they need to learn to listen to others' opinions, express their own views, coordinate differences between team members, and work together towards the goal of solving problems. Through such training, students can improve their teamwork and communication skills, which is of great significance for their future cooperation with colleagues in education and communication with parents and students.

4.6 Cultivate Students' Awareness of Independent Learning and Lifelong Learning

The PBL teaching method requires students to acquire knowledge and solve problems independently, which encourages students to master the methods and strategies of independent learning and cultivate independent learning ability. In the process of constantly solving problems, students will gradually realize the insufficiency of their knowledge and ability, thus stimulating their motivation to learn actively and cultivating a lifelong learning consciousness. This kind of independent learning and lifelong learning consciousness will enable students to continuously adapt to the development and changes in the field of education in their future careers and

continuously improve their professional qualities.

5. Conclusion

PBL teaching method is problem-based learning, which can be fully applied to the teaching of "Principles of Education" course and can bring many positive effects. Principles of Education is a course that is both theoretical and practical. The PBL teaching method emphasizes placing learning in a problem context, which is consistent with the requirement of educational principles that students need to understand and apply educational theoretical knowledge to solve practical educational problems. The application of PBL teaching method can bring positive results to the "Principles of Education" course and enhance students' understanding of educational theoretical knowledge and their practical application ability.

References

[1] Yin Xi. Discussion of Goncharov's Principles of Education in Soviet Education Circles[J]. People's Education, 1950, (4): 20-22.
[2] Zhu Fuming. A review of Principles of Education: a book with broad ideas and precise theories[J]. China Book Review, 2000, (8): 24-25.
[3] Yan Fuzong. Exploring the significance of case teaching method in the teaching of pedagogy principles[J]. Journal of Jiamusi Vocational College, 2020, 36(11): 114-115+118.
[4] Wang Qiuju. Reflections on the establishment of graduate courses in Principles of Education: Taking the six national key normal universities deployed by the Ministry of Education as an example [J]. Contemporary Education Forum (Second Half Monthly), 2009, (10): 60-62.
[5] Li Zhangqiong. Teaching reform on the principles of pedagogy[J]. Vocational Education Forum, 2012, (8): 34-35.
[6] Zhang Zhonghua. What kind of subject is "Principles of Education"? [J]. Educational Science Research, 2023, (12): 27-33.
[7] Zhang Zhonghua, Sun Wenjing. What should the knowledge system of "Principles of Education" be like[J]. Educational Academic Monthly, 2022, (3): 28-36+50.
[8] Liang Qiaoyan. Teaching Research on the Principles of Education in Colleges and Universities[J]. Journal of Jiangxi Electric Power Vocational and Technical College, 2021, 34(6): 104-105.
[9] Wang Xueping. Educational teaching theory and practical application from a multidimensional perspective[J]. Chemical Industry Progress, 2020, 39(7): 2922.
[10] Luo Ruizhi, Huang Kunlin, Yu Jian. Construction of a diversified classroom teaching evaluation model under the background of teacher training professional certification[J]. Journal of Chongqing Second Normal University, 2020, 33(3): 89-94.
[11] Zhang Jie. Application and reflection of happy teaching method in theoretical courses of preschool education in colleges and universities: Taking the course of "Principles of Education" as an example [J]. Nongjia Canmou, 2019, (20): 271.
[12] Gao Fei. Internationalization of the Course "Principles of Education": Connotation, Goals and Paths[J]. Journal of Zhejiang Shuren University (Humanities and Social Sciences), 2016, 16(6): 95-98+107.
[13] Li Baoqiang, Cai Yunquan. On the Re-recognition of Mr. Hu Dehai's Ideological System and Academic Influence in Principles of Education[J]. Contemporary Education and Culture, 2016, 8(5): 29-34+57.
[14] Gao Pan. A brief analysis of the application of case teaching method in the teaching of pedagogy principles [J]. Asia-Pacific Education, 2016, (24): 107.
[15] Liu Chang, Li Libo. Exploration on the Reform of Teaching Mode of Principles of Education Course[J]. Century Bridge, 2016, (4): 84-85.
[16] Zhou Xiruo. Comparative study on the training programs of full-time master students in educational principles: A case study of five universities[J]. Journal of Science and Education (First Half of the Month), 2016, (10): 52-54.
[17] Wang Zhouhong. Development needs and reform approaches of the discipline of educational principles[J]. Western Quality Education, 2016, 2(7): 66.
[18] Chen Xiaomin. The inspiration of educational principles to educational technology[J]. Software Guide (Educational Technology), 2011, 10(8): 6-8.