The Application of PBL Mode in General Education Courses in Universities

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Abstract: General education is a form of education that integrates knowledge from various fields and provides students with a wide range of subject knowledge and interdisciplinary perspectives. Traditional classroom teaching methods often find it difficult to achieve this goal. The PBL model is problem driven, emphasizing learners' initiative and autonomy, which helps to improve the effectiveness of general education teaching. It explores new ideas and methods for higher education reform, which can promote the development of students' multiple intelligences and the improvement of their self-learning abilities, and achieve the diversification of educational goals. This study aims to explore the application of PBL model in general education courses in universities, analyze its impact on students' learning outcomes, and explore how to use PBL model to promote the development of general education in universities, in order to provide effective theoretical and practical references for improving the quality of general education in universities.

Keywords: PBL Mode; General Education Courses; Application

1. Introduction

With the changes of the times and the development of society, the reform and innovation of higher education has become a hot topic in the current education field. General education, as an indispensable part of higher education, covers a wide range of areas and has diverse goals, making it an indispensable part of the higher education system. Traditional classroom teaching often lacks interactivity, practicality, and comprehensiveness, making it difficult to meet the needs of general education courses. Therefore, the application of PBL (Problem Driven Learning) model has become a powerful way for the reform of general education in universities. The PBL model is problem driven, emphasizing students' initiative and autonomy, which is beneficial for students' development of multiple intelligences, improvement of autonomous learning ability, and practical application of knowledge. This article will focus on exploring the application of PBL model in general education courses in universities, studying its significance and role in improving students' learning effectiveness and promoting the development of general education. The aim is to provide some new ideas and methods for promoting the reform of general education in universities.

2. Overview of PBL mode and its application significance in general education courses in universities

2.1 Overview of PBL mode

PBL mode refers to a kind of teaching mode that takes problems as the core, students as the main body, and ability cultivation as the goal. In a relatively real scene, it uses interdisciplinary comprehensive learning and cooperative learning to achieve the comprehensive improvement of knowledge and ability through independent learning, research, inquiry and other processes. This teaching model was founded by American educator Professor Wayne in 1969, with the aim of helping students develop the habit of self-directed learning, cultivate problem-solving skills, and fully unleash their personal potential.[1]

The main feature of PBL mode is problem driven learning, which focuses on problem-solving and helps students explore problems and find ways to solve them in practical situations. The PBL model places great emphasis on students' autonomy and initiative, allowing them to freely choose learning content and progress based on their interests and needs. At the same time, PBL mode also emphasizes cooperative learning and team cooperation among students, and encourages students to solve problems
through team cooperation.

At present, the PBL model has been widely applied in domestic higher education, especially in the field of general education. The application of PBL mode helps to change traditional teaching methods, achieve diversified teaching objectives, and improve educational quality.[2]

2.2 The Application Significance of PBL Mode in General Education Courses in Universities

2.2.1 Cultivate students' comprehensive qualities

General education courses cover a wide range of subjects, have diverse objectives, and have many intersections and connections between different disciplines. The PBL model can help students explore problems and find ways to solve them in practical situations, cultivating their comprehensive qualities and problem-solving abilities.

2.2.2 Improve students' practical abilities

The PBL model emphasizes students' autonomy and initiative, allowing them to freely choose learning content and progress based on their interests and needs. At the same time, PBL mode also emphasizes cooperative learning and team cooperation among students, and encourages students to solve problems through group cooperation. This approach is beneficial for improving students' practical abilities and their ability to apply knowledge to solve practical problems.[3]

2.2.3 Promote student communication and cooperation

The PBL model is also conducive to communication and cooperation among students and the cultivation of team spirit. In general education courses, students come from different disciplines and backgrounds, and the PBL model can promote communication and cooperation among students, enhancing their collaborative abilities.

2.2.4 Promote the development of general education in universities

The application of PBL model in general education courses in universities can help change traditional teaching methods, achieve diversified teaching objectives, and improve education quality. PBL mode can stimulate students' enthusiasm for learning, improve students' enthusiasm for active learning, and cultivate students' ability to explore and solve problems, thus promoting the development of general education in colleges and universities.

3. Analysis of the Teaching Characteristics of General Education Courses in Universities

As a new form of education, general education courses in universities play an important role and position in contemporary university education. The essence of general education courses is to focus on the comprehensive development of students. It helps to cultivate students' comprehensive qualities, improve their learning and innovation abilities, and lay the foundation for their future learning, research, and career development. This article will analyze in detail the teaching characteristics of general education courses in universities from three aspects, in order to further explore the value of general education courses in contemporary university education.

3.1 Crossover

The reason why general education courses in universities are called interdisciplinary courses is because they involve a wide range of disciplines, including natural sciences, humanities, social sciences, and other disciplines. The scope of general education courses is broad, emphasizing the intersection of disciplines and providing students with opportunities for interdisciplinary learning. Teachers of general education courses need to have interdisciplinary knowledge and ability to integrate and apply knowledge in different fields. Through cross learning in philosophy, literature, art, history, sociology and other disciplines, students can obtain a more comprehensive knowledge vision and open thinking ability.

3.2 Comprehensive

The second teaching characteristic of general education courses in universities is comprehensiveness. The knowledge involved in general education courses is not only knowledge in a
certain field, but also knowledge from multiple fields. Therefore, in general education courses, teachers not only need to impart knowledge, but also need to teach students how to integrate and apply interdisciplinary knowledge, so that students can better understand and apply the knowledge they have learned. Teachers should focus on cultivating students' information processing, communication, logical thinking, and interdisciplinary abilities in the teaching of general education courses, in order to enhance their comprehensive qualities.

3.3 Openness

The establishment of general education courses is aimed at cultivating students' comprehensive qualities and adaptability, therefore it has a high degree of openness. Students have a high degree of freedom in choosing general education courses, and the content and forms of general education courses are also flexible and diverse, often described by terms such as "quality education", "life education", and "humanities education". The teaching of general education courses in universities needs to pay attention to the guidance of students' subjective consciousness and learning interest, in order to stimulate students' learning enthusiasm. Teachers need to pay attention to the application of various teaching forms in teaching, such as group discussions, case studies, classroom interactions, etc., in order to improve students' learning outcomes.

It can be seen that the teaching characteristics of general education courses in universities are interdisciplinary, comprehensive, and open. For students, general education courses are the key to achieving comprehensive self-development, helping to cultivate their comprehensive qualities, enhance their learning effectiveness and adaptability.

4. Summary of Teaching Issues in General Education Courses in Universities

4.1 The singularity of teaching content and form

The singularity of teaching content is a common but serious problem in the teaching of general education courses in universities. The teaching content of most general education courses in universities tends to focus on certain disciplines, with a focus on natural sciences or engineering technology, while social sciences, humanities, and other fields are relatively less covered. The reasons for this singularity are diverse, such as the lack of interdisciplinary background among the personnel responsible for developing general education courses, or the strict adherence to the requirements of a certain subject area in formulating teaching plans. For students, this means that their horizons and knowledge lack sufficient breadth, which may have a certain impact on the cultivation of comprehensive abilities.

The singularity of teaching forms is another significant issue. The teaching form of general education courses is often traditional one person teaching, with students listening and lacking sufficient interaction and exploratory learning. This teaching method may lead to a gradual decrease in students' interest in learning and unsatisfactory learning outcomes.

4.2 Insufficient professional background and teaching ability of teachers

The teaching of general education courses requires teachers to have a broad disciplinary background and rich teaching experience, but in reality, there are often shortcomings in teachers' professional background and teaching abilities. Due to the fact that general education courses involve multiple disciplinary fields, teachers need to possess interdisciplinary professional knowledge and skills, but their own professional level may not necessarily meet the requirements. In addition, the teaching of general education courses requires teachers to possess skills in innovative thinking and teaching methods, but there are often differences in teachers' open thinking abilities.

The direct impact of teachers' insufficient teaching ability is to reduce the quality of course teaching, affect students' listening experience, and even lead to students' knowledge of general education courses not meeting the standards of higher education, slowing down students' growth in this field.

4.3 Incomplete curriculum and evaluation system

The setting of general education courses needs to fully consider the comprehensive development of students and the cultivation of their comprehensive qualities, which requires a flexible and free
teaching environment and a highly open curriculum. However, in reality, the setting of general education courses is relatively closed, lacking sufficient freedom and flexibility. For example, some schools usually have a fixed course list for general education courses, and students can only choose specific courses, unable to choose courses based on their own interests and needs, resulting in the inability to meet students' personalized needs.

At the same time, there are also problems with the evaluation system of general education courses, usually using exams and thesis evaluations, lacking sufficient practical experience and multiple evaluations. This evaluation method may not fully consider students' various abilities and qualities, resulting in the inability to truly achieve teaching objectives.

4.4 The influence of students' learning attitude and personality factors

Similar to other stages of education, the learning effectiveness of general education courses in universities is also influenced by students' learning attitudes and personality factors. Firstly, students' learning attitudes have a significant impact on learning outcomes. Some students may lack interest and enthusiasm in general education courses, and often lack the attitude of active learning. Secondly, students' personality factors may also affect learning outcomes, for example, some students may be too introverted or extroverted to adapt to the teaching environment of general education courses. If students' individual needs cannot be met, it may lead to their psychological aversion to the teaching curriculum, thereby reducing the overall learning effectiveness.

5. The Application Measures of PBL Mode in the Teaching of General Education Courses in Universities

5.1 Guide students to actively explore knowledge

In PBL mode, teachers are no longer the protagonists of imparting knowledge, but guide students to actively explore and discover knowledge. Teachers can provide an open-ended question or scenario, allowing students to independently review relevant materials, understand relevant concepts and knowledge, and solve problems through analysis and synthesis.

This kind of inquiry learning method helps students to learn active learning and think deeply about problems. During the learning process, students have transitioned from passive acceptance of knowledge to active learners, mastering the methods and skills of autonomous learning, and developing the ability to think independently and innovate.

5.2 Utilizing problem oriented approach to cultivate students' collaborative and communication abilities

In PBL mode, students collaborate in groups and solve problems together through mutual collaboration. Group members can assign tasks based on their individual strengths and interests, in order to complete tasks more efficiently. This collaborative learning approach can enable students to master knowledge independently while cultivating their ability to collaborate and communicate.

In general courses on cultural heritage protection, students can be divided into different groups, each responsible for a specific location of cultural heritage protection work. Students can learn and share their perspectives through collaborative communication, in order to better understand the significance and protection methods of cultural heritage.

This collaborative learning approach can promote students' collaborative ability and team spirit, enhance communication and cooperation skills, and enhance their ability to collaborate and coordinate in a team.

5.3 Give full play to the advantages of problem-based teaching and promote the growth of students' critical thinking ability

Under PBL mode, students need to think and analyze problems from different perspectives, compare and evaluate different viewpoints and solutions, and ultimately come to their own conclusions. This way of thinking can cultivate students' critical thinking ability. In general education courses on social justice, teachers can guide students to analyze the causes and impacts of social problems,
evaluate different solutions, and ultimately come up with their own perspectives.

This kind of critical thinking mode can enable students to constantly ask questions, analyze problems, solve problems and evaluate results in the learning process, and provide a basis for critical thinking for students' future work and life.

6. Conclusion

In summary, the application of PBL model in the teaching of general education courses in universities can transform students from passive knowledge receivers to active learners. By guiding students to actively explore knowledge, cultivating students' ability of cooperation and communication, and promoting students' ability of critical thinking, we can improve students' learning motivation, learning interest and learning effect, cultivate students' ability and quality, lay a good foundation for students' future work and life, so as to promote students' further growth and development in the field of general education, and provide more qualified talents for the society.

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