

Exploration of Integrating Preschool Child Development Psychology with PBL in the Context of Undergraduate Industry-Education Integration

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Abstract: This article explores the integration of preschool child development psychology with Problem-Based Learning (PBL) against the backdrop of undergraduate industry-education integration. It delves into the application of PBL to enhance the melding of theoretical knowledge in preschool child development psychology with real-life cases, thus improving students' practical and problem-solving skills. Through empirical research and case studies, the paper illustrates the positive effects of PBL in the teaching of preschool child development psychology, offering an effective teaching model for education in the context of undergraduate industry-education integration.

1. Introduction

In the current broad context of undergraduate industry-education integration, one pressing issue in the field of education is how to better integrate theoretical knowledge of preschool child development psychology with actual teaching. Problem-Based Learning (PBL), a method that emphasizes problem-solving and practical application, provides a way to achieve this integration. This paper aims to conduct an in-depth study on the practical integration of preschool child development psychology and PBL, exploring a suitable teaching model for the undergraduate industry-education integration context.

2. Theoretical Framework of Preschool Child Development Psychology

2.1. Basic Concepts of Preschool Child Development Psychology

Preschool child development psychology studies the psychological changes and development patterns of children from birth to preschool age. Its basic concepts involve a comprehensive and in-depth understanding of children's cognitive, emotional, and social development. Firstly, in terms of cognitive development, preschool children experience rapid development in language abilities, ways of thinking, and memory, which are closely related to the maturation of their neural systems. Secondly, emotional development involves preschool children gradually establishing an emotional foundation through parent-child relationships and peer interactions, forming a basic framework for self-awareness and emotional regulation. Lastly, in terms of social development, children gradually learn to cooperate, share, and resolve conflicts with others, establishing basic patterns of social interaction.

2.2. The Impact of Undergraduate Industry-Education Integration on Teaching Preschool Child Development Psychology

Under the background of undergraduate industry-education integration, the teaching of preschool child development psychology has been positively influenced in several ways. Firstly, the involvement of the industry allows students to get closer to real-world problems and deeply understand industry needs, helping them better grasp the theoretical aspects of preschool child development psychology. Secondly, cooperation with enterprises merges teaching content with actual work scenarios, enhancing students' understanding of how subject knowledge is applied in practice. This integrated teaching approach breaks down the traditional barriers between academic subjects and practical work, enabling students to understand the theoretical framework of preschool child development psychology more comprehensively and profoundly. Finally, integrating Problem-Based Learning (PBL) strategies significantly enhances the teaching effectiveness of preschool child development psychology. PBL encourages students to actively explore and collaboratively solve real-world problems, applying theoretical knowledge in actual social contexts. This method not only improves students' practical skills but also comprehensively enhances their overall competencies.

In summary, the basic concepts of preschool child development psychology encompass cognitive, emotional, and social development aspects, while undergraduate industry-education integration has a positive impact on teaching this field, promoting an organic integration of theoretical knowledge with practical work, and providing a more comprehensive and practical knowledge system for students.^[1]

3. Application of Problem-Based Learning in Preschool Child Development Psychology

3.1. Basic Principles and Process of PBL

Problem-Based Learning (PBL) is a problem-oriented learning approach, which aims to facilitate deep learning and comprehensive skill development in students through solving real-world problems. This section will delve into the basic principles and processes of PBL and elucidate its unique value in teaching preschool child development psychology.

3.1.1. Basic Principles of PBL

The core principles of PBL include problem orientation, autonomous learning, group collaboration, and presentation of results. Firstly, problem orientation breaks away from traditional teaching by introducing real problems, sparking students' interest in learning. Secondly, autonomous learning emphasizes student initiative, enabling them through independent research and study to enhance problem-solving abilities. Group collaboration involves cooperative learning, fostering teamwork and communication skills. Lastly, the presentation of students' solutions consolidates their understanding of preschool child development psychology.^[2]

3.1.2. Process of PBL

The PBL process facilitates deep understanding and resolution of real problems through structured steps. Starting with problem presentation, students face practical challenges such as childhood behavior issues or learning disabilities, igniting their exploratory interest. The autonomous learning phase requires students to independently explore relevant theories and practical solutions, building a comprehensive understanding of the issue.

During group collaboration, students share discoveries and develop solutions collectively, emphasizing the importance of teamwork. The presentation phase provides opportunities to display and share solutions, fostering learning consolidation and reflection.

Through this process, PBL not only deepens students' understanding of preschool child development psychology but also cultivates their critical thinking and teamwork skills.

3.1.3. Unique Value of PBL in Preschool Child Development Psychology

In preschool child development psychology, the application of PBL helps translate abstract theoretical knowledge into practical applications. By focusing learning around real-world problems, students not only comprehend disciplinary knowledge but also develop the ability to solve practical issues. Group collaboration in the PBL process teaches students cooperative, communication, and leadership skills, which are crucial for their future careers.

3.2. Practical Application Cases of PBL in Preschool Child Development Psychology

In the teaching of preschool child development psychology, Problem-Based Learning (PBL) through practical application cases provides students with profound learning experiences. A typical case involves "designing adaptive education programs," where students apply theoretical knowledge of preschool child development psychology to real educational settings, formulating specific problem-solving strategies.^[3]

3.2.1. Task Background

Students are tasked with designing an adaptive education plan to meet the individual differences and developmental levels of various preschool children. This task background challenges students to confront complex real-world situations, requiring them not only to understand the basic concepts of preschool child development psychology but also to translate theoretical knowledge into practical educational practice.

3.2.2. Group Collaboration

Students are divided into groups, with each group responsible for designing a part of the adaptive education plan. Through group collaboration, students need to fully leverage their professional strengths, jointly thinking and solving problems, fostering a collaborative spirit and promoting interdisciplinary communication and cooperation.

3.2.3. Application of Theoretical Knowledge

In the case, students deeply analyze the cognitive, emotional, and social development characteristics of children, proposing educational interventions based on different ages and individual differences. This requires students to organically integrate theoretical knowledge of preschool child development psychology into practical problem-solving, enhancing their application skills.

3.2.4. Presentation and Debate

By presenting their adaptive education plans, students not only showcase their solutions but also engage in debates and defenses to deepen their understanding of the proposed solutions. This stage not only trains students' expressive abilities but also promotes their deep comprehension of theories in preschool child development psychology.

Through this practical application case, students comprehensively develop their practical abilities, teamwork skills, and communication skills. This real-case-based PBL teaching model not only improves the effectiveness of teaching preschool child development psychology but also provides valuable experience for students to better apply their knowledge in future professional settings.

4. Practical Integration of Preschool Child Development Psychology with PBL

4.1. Course Design and Teaching Methods

The practical integration of preschool child development psychology with Problem-Based Learning (PBL) aims to promote deep understanding and practical application of subject knowledge through thoughtfully designed courses and innovative teaching methods. This section will explore specific applications of course design and teaching methods in practice.

4.1.1. Course Design

In the course design that integrates preschool child development psychology with PBL, the core concept revolves around centering the curriculum on problem-solving, seamlessly integrating theoretical knowledge into addressing specific issues. The course design begins with clear learning objectives to ensure students grasp key concepts of preschool child development psychology. For instance, with the problem of "child learning disabilities," the course aims for students to understand different types of learning disabilities, diagnostic methods, and how to create personalized educational plans for each child. Through such designs, students not only grasp the theory but also learn how to apply this knowledge in practice, thus gaining a more comprehensive understanding of preschool child development psychology.

Additionally, real cases, such as those involving children with learning disabilities, are incorporated into the curriculum, allowing students to deeply understand the diversity of preschool learning issues and cultivate their problem-solving skills.

Lastly, problem-oriented course design fosters autonomous learning among students. It guides them to actively acquire knowledge while solving problems, enhancing their problem-solving skills. The flexibility of course design allows subject knowledge to be more relevant to students' actual needs, sparking a keen interest in preschool child development psychology.^[4]

4.1.2. Teaching Methods

The selection of teaching methods focuses on stimulating students' interest in active learning and developing their practical application skills. Diverse teaching methods such as case analysis, group discussions, and field observations are introduced to enhance students' abilities to apply theoretical knowledge in practice.

Firstly, through case analysis, students can combine theoretical knowledge of preschool child development psychology with real-world problems. Case analysis not only develops students' abilities to analyze and solve problems but also promotes teamwork and discussion.

Secondly, group discussions, a crucial component of PBL, involve collaborative problem-solving within teams, fostering a spirit of teamwork and enhancing communication and negotiation skills.

Lastly, field observations provide an effective way to apply theoretical knowledge in practice. Observing child behavior in real settings deepens students' understanding of disciplinary knowledge and enhances their recognition of practical issues.

In summary, course design is problem-oriented, and teaching methods focus on stimulating students' interest in active learning. Through varied teaching approaches, knowledge of preschool child development psychology is integrated into solving real-world problems, providing students with a more practical and applicable learning experience.

4.2. Student Participation and Feedback

In the integration of preschool child development psychology with PBL, active student

participation and timely feedback are crucial to ensuring teaching effectiveness.

4.2.1. Student Participation

Enhancing student participation is key to the success of PBL. Initiatives like group projects and case studies stimulate active participation. The design of group projects may involve team collaboration on specific issues, such as creating educational intervention plans or simulating family interviews, enabling students to fully utilize their teamwork skills in real problem-solving scenarios.

Additionally, incorporating instant polling and discussion segments creates an interactive classroom atmosphere, deepening students' engagement with subject knowledge. By encouraging students to share thoughts and pose questions in groups, a deeper consideration of practical issues in preschool child development psychology is stimulated, enhancing the participatory learning experience.

4.2.2. Timely Feedback

Timely feedback is crucial for students' learning processes. Regularly organizing group presentations and discussions is an effective way to identify and address students' shortcomings in problem-solving. Following presentations, specific and targeted evaluations and suggestions guide students towards improvements.

Moreover, peer and self-evaluation mechanisms are also key components in enhancing learning outcomes. Through peer evaluation, students receive feedback from different perspectives, identifying areas for improvement. Self-evaluation encourages students to reflect deeply on their learning process, fostering a deeper understanding of disciplinary knowledge.

By continually optimizing course design, stimulating student participation, and establishing effective feedback mechanisms, teachers can better guide the integration of preschool child development psychology with PBL. This positive learning atmosphere not only improves students' understanding and application of subject knowledge but also develops their teamwork and problem-solving skills.

5. Empirical Research and Case Analysis

5.1. Empirical Research Methods and Data Collection

The design of empirical research and data collection is crucial for evaluating the effectiveness of the integration of preschool child development psychology with Problem-Based Learning (PBL). This section will introduce the methods and processes of data collection in empirical research.

5.1.1. Empirical Research Methods

This study employs a mixed-methods approach, combining quantitative and qualitative research to fully understand students' learning outcomes in preschool child development psychology within a PBL environment.

In quantitative research, we collect data on students' satisfaction with the PBL teaching model and their mastery of subject knowledge through surveys. This helps to quantify students' overall perception and assessment of the educational effectiveness of PBL. Surveys cover various aspects including students' perceptions of PBL, engagement, understanding of subject knowledge, and its application, providing objective data for a comprehensive understanding of students' learning conditions in a PBL environment.^[5]

Simultaneously, qualitative research will delve into the development of students' subject practice

and problem-solving abilities through focus group discussions with students and in-depth interviews with teachers. Focus groups will concentrate on students' learning experiences, including challenges, achievements, and teamwork, providing detailed emotional and experiential insights. Teacher interviews will focus on observations and insights from the teaching design and implementation process, and observations of changes in students' subject abilities, offering a comprehensive understanding of PBL's educational impact from the teacher's perspective.

By using a mixed-methods approach, we aim to utilize both quantitative and qualitative data comprehensively to deeply understand the impact of PBL on the subject capabilities of preschool child development psychology, providing a scientific basis for further educational improvements.

5.1.2. Data Collection

Quantitative data will be collected through anonymous surveys. The survey design covers a comprehensive understanding of the PBL teaching model, including student engagement, understanding, and application of subject knowledge. Additionally, students' academic performance and test scores will also be included in the quantitative analysis to provide a more comprehensive picture of academic performance.

Qualitative data will be collected through focus groups and in-depth interviews. Focus groups will invite students involved in PBL to discuss their learning experiences in preschool child development psychology, focusing on challenges they face, achievements, and their feelings about teamwork. Teacher interviews will focus on observations and insights from the implementation of the PBL teaching design and the profound understanding of changes in students' subject abilities.

Through these comprehensive data collection methods, we can deeply understand the changes in students' learning experiences and subject capabilities in a PBL environment. Quantitative data provide specific numerical indicators, while qualitative data offer a vivid, in-depth depiction of the stories behind these numbers, allowing us to fully grasp the impact of PBL on the integration practice of preschool child development psychology.

5.2. The Impact of PBL on Students' Preschool Child Development Psychology Capabilities

Through in-depth analysis of empirical research data, this section will discuss the specific impacts of Problem-Based Learning (PBL) on students' capabilities in preschool child development psychology and provide a strong basis for future educational improvements.^[6]

5.2.1. Mastery of Subject Knowledge

Under the PBL teaching model, students' mastery of subject knowledge in preschool child development psychology has significantly improved. Statistical analysis of quantitative data shows that students have a more comprehensive and deeper understanding of the core concepts of preschool child development psychology in a PBL environment. Survey results indicate that students have achieved a higher level of understanding of relevant theories compared to traditional teaching models.

Additionally, qualitative data further explore the depth of students' understanding of key concepts and their application to real-world problems. Focus group discussions and in-depth interviews reveal that by solving practical problems, students have deepened their understanding of subject knowledge and can apply theoretical knowledge more flexibly to real-world situations.

5.2.2. Problem-Solving Ability

The implementation of PBL has significantly enhanced students' problem-solving abilities in the field of preschool child development psychology. Through quantitative data on problem-solving skills,

we observe that students in a PBL environment possess more critical thinking and problem-solving skills. When faced with real-world problems, students can quickly propose innovative solutions through in-depth analysis and teamwork.

Focus groups and in-depth interviews provide more detailed and deeper case analyses. Students have honed their teamwork and communication skills through group collaboration, enhancing their problem-solving abilities through the study and discussion of complex issues. Teachers have observed the problem-solving mindset formed by students in a PBL environment, which helps them flexibly address complex situations in real work.

5.2.3. Learning Interest and Engagement

The PBL teaching model has sparked students' interest and engagement in the field of preschool child development psychology. Through questions about students' interest and engagement in PBL from the quantitative data, we find that students are more actively involved in subject learning in a PBL environment. Survey results show that students are more interested and motivated to participate in learning subject knowledge through the PBL approach.

Additionally, teacher interviews provide detailed explanations of changes in students' learning interest and engagement. Teachers have observed that students in a PBL environment show higher initiative in learning, paying more attention to the practical application of subject knowledge and the resolution of real problems. By completing practical tasks, students have enhanced their deep understanding of the subject, thereby increasing their interest in learning.

Through this empirical research, we have thoroughly analyzed the multiple impacts of PBL on students' capabilities in preschool child development psychology. This provides a solid basis for future teaching improvements and also offers useful experiences for promoting problem-based learning in the field of preschool child development psychology.

6. Conclusion

Through in-depth study of the integration of preschool child development psychology and Problem-Based Learning (PBL), this paper has found that PBL has a positive impact on enhancing students' practical and problem-solving skills. Within the context of undergraduate education integration, effectively designed courses and teaching methods can significantly promote the educational outcomes of preschool child development psychology. Therefore, this research offers an innovative teaching model to the field of education, providing valuable experiences and insights for further advancing integrated education at the undergraduate level.

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