https://doi.org/10.37420/j.ssp.2024.009

Empowering Minds: Integrating Positive Psychology into Project-Based Learning for Border Area Students in Guangxi

Song Jin[1], Gan Huang[2*]

[1] Student Affairs Office, Guangxi Minzu Normal University, Chongzuo, China

[2] Faculty of Literature and Media, Guangxi Minzu Normal University, Chongzuo, China

[*]Corresponding author E-mail：64010562009@msu.ac.th

Abstract

This study investigates the integration of Positive Psychology Group Counseling (PPGC) into the Project-Based Learning (PBL) model in secondary schools in Guangxi's border region. The findings indicate that incorporating PPGC into PBL significantly enhances students' mental health, particularly in stress management and emotional regulation. The integration also effectively promotes academic achievement by improving students' knowledge mastery, innovation, and collaboration skills. The research underscores the adaptability and potential for broader application of this integrated model in resource-limited educational contexts, providing empirical support for educational reform in similar regions.

Keywords

Project-Based Learning (PBL), Positive Psychology Group Counseling (PPGC) , Educational Reform in Border Regions

1.Introduction

The Project-Based Learning (PBL) model, which fosters active student engagement and problem-solving skills, has garnered significant attention for promoting interdisciplinary knowledge and enhancing collaboration and critical thinking [1]. However, implementing PBL in Guangxi's border region secondary schools presents challenges such as limited resources and insufficient teacher training[2].

Positive psychology, focusing on traits like optimism, self-confidence, and resilience, has effectively improved mental health and academic performance through interventions such as group counseling[3]. Integrating positive psychology into the PBL model offers benefits, especially in Guangxi, where students face unique psychological challenges due to the region's remote location and economic conditions[4][5].

This study explores methods for integrating positive psychology group counseling into the PBL model in Guangxi's border region secondary schools. The goal is to enhance students' mental health and academic achievement through a PBL framework infused with positive psychology principles. The research will assess the feasibility and impact of this integrated approach on students' psychological resilience, self-efficacy, and academic success, providing empirical support for broader application and policy development in similar educational contexts.

https://doi.org/10.37420/j.ssp.2024.009

2.Literature Review

2.1. The Project-Based Learning Model

The Project-Based Learning (PBL) model is a student-centered pedagogical approach that facilitates the acquisition of knowledge and skills through engagement in authentic and complex projects[6]. Unlike traditional teaching methods, PBL emphasizes student autonomy and practical application, encouraging deep learning through task-driven and problem-solving activities. Within the PBL framework, students are required not only to master subject-specific content but also to employ critical thinking, collaboration, and creativity in completing their tasks. This model is instrumental in enhancing students' motivation and engagement in the learning process.

In recent years, PBL has gained significant traction globally, particularly in primary and higher education sectors in developed countries, where it has become a prominent instructional strategy. For example, in the United States, PBL is extensively utilized in STEM education, where it has been shown to significantly improve students' scientific literacy and problem-solving capabilities[7]. Similarly, in Europe, PBL is widely integrated into engineering education, where it fosters practical skills and teamwork[8]. In China, although the adoption of PBL began more recently, its implementation in primary and secondary education has been expanding, particularly in experimental schools within major cities, where it has yielded promising educational outcomes[9]. However, the promotion and implementation of PBL in remote areas, such as secondary schools in the Guangxi border region, face considerable challenges due to limited educational resources, highlighting the necessity for targeted research and support [10].

2.2. Positive Psychology and Mental Health

Positive psychology, introduced by Seligman and Csikszentmihalyi in the late 20th century, represents a branch of psychology focused on the study of positive traits and well-being to enhance both individual and collective mental health [3]. Central concepts within positive psychology include well-being, psychological resilience, self-efficacy, and a sense of meaning—all of which are aimed at improving quality of life through the cultivation of positive psychological traits and life experiences[11]. The emergence of positive psychology has offered new perspectives and methodologies for mental health education, particularly in the prevention and intervention of adolescent psychological issues, with profound theoretical and practical implications.

In recent years, principles of positive psychology have been increasingly incorporated into mental health education in primary and secondary schools. Interventions grounded in positive psychology, such as group counseling and positive psychology training camps, have been employed to enhance students' psychological resilience, strengthen their self-identity, and improve their social adaptability[12]. In the United States, positive psychology has been widely implemented within school mental health programs, yielding significant outcomes, such as reducing student anxiety and depression while simultaneously improving academic performance and social skills[13]. In China, as student mental health issues have become increasingly prominent, the application of positive psychology in primary and secondary education has gained substantial attention. For instance, the implementation of positive psychology group counseling has been shown to effectively improve students' emotional regulation and interpersonal relationships[14]. Nevertheless,

https://doi.org/10.37420/j.ssp.2024.009

research on the application of positive psychology in secondary schools within the Guangxi border region remains limited, particularly in terms of its integration with the Project-Based Learning model.

2.3. Research on Positive Psychology Group Counseling

Positive Psychology Group Counseling (PPGC) is a psychological intervention based on positive psychology theories, aimed at fostering positive traits and enhancing mental health through group interaction and training[15]. The theoretical frameworks of PPGC include the well-being model, psychological resilience model, and positive emotion model. These frameworks promote psychological growth by guiding participants to experience positive emotions, build relationships, and set meaningful goals[16]. In practice, PPGC employs techniques such as group discussions, role-playing, and psychological games, integrated with real-life scenarios to enhance students' psychological capacities and social skills[17].

The application of PPGC across various educational stages has demonstrated adaptability and effectiveness. At the elementary level, PPGC focuses on fostering children's self-identity and social skills through engaging activities and games, helping them develop a positive self-concept[18]. At the secondary level, PPGC emphasizes enhancing students' coping skills and emotional regulation. Research shows that students who participate in PPGC exhibit greater resilience in managing stress and academic challenges[19]. However, studies on PPGC application in secondary schools in the Guangxi border region are limited. This study will be the first to explore integrating PPGC within the Project-Based Learning model, aiming to address the unique psychological needs of students in this region.

3. Pathway Design for Integrating Positive Psychology Group Counseling within the Project-Based Learning Model

3.1. Integration of Project-Based Learning Model and Positive Psychology Group Counseling

3.1.1. Characteristics and Advantages of the Project-Based Learning Model

The Project-Based Learning (PBL) model is an educational approach that emphasizes active learning and the development of practical skills. Guided by real-world projects, students acquire knowledge and, more importantly, develop critical thinking, problem-solving skills, and teamwork through project design, implementation, and reflection[8]. This model's strength lies in its ability to move beyond passive knowledge transmission, typical of traditional teaching, by encouraging students to actively explore problems and deepen their understanding through hands-on practice. The PBL model is particularly effective in cultivating multidimensional abilities, which is especially motivating for students in secondary schools in the Guangxi border region, where traditional teaching methods often fail to provide a positive learning experience. The main characteristics of PBL are:

Project-Driven Learning: Students engage in complex, real-world, problem-based projects that typically require integrating and applying knowledge from multiple disciplines.

Student-Centered Approach: PBL emphasizes autonomy and active participation, with the teacher acting as a guide and facilitator rather than merely a transmitter of knowledge.

Collaborative Learning: Projects are typically conducted in groups, fostering teamwork and communication skills.

Process Evaluation: PBL values assessment and feedback throughout the learning process, not just the final outcome. This approach helps identify and address issues promptly, facilitating continuous improvement.

3.1.2. The Role and Function of Positive Psychology Group Counseling in Project-Based Learning

Positive Psychology Group Counseling (PPGC) in Project-Based Learning (PBL) goes beyond psychological support; it can be purposefully designed and integrated into various project stages to help students better adapt to challenges and pressures. The essence of PPGC is applying positive psychology principles, such as fostering optimism, enhancing self-efficacy, and promoting positive social interactions, thereby supporting students' holistic development[15]. Specifically, PPGC can play a role in the following ways throughout various stages of the project:

Project Initiation Stage: At the project's start, PPGC helps students clarify personal and team goals while enhancing cohesion through group activities. By guiding students to set realistic goals, PPGC enhances self-efficacy, crucial for increasing the likelihood of successful project execution and engagement.

Project Implementation Stage: During project execution, students may encounter various challenges and pressures. PPGC assists by conducting regular group discussions and counseling to help students manage stress, resolve conflicts, and provide emotional support. This process helps students maintain a positive mindset and enhances their ability to cope with difficulties[12].

Project Conclusion Stage: Upon project completion, PPGC facilitates reflective activities that help students summarize experiences and reflect on growth and shortcomings. Through group sharing, students gain emotional resonance, boosting confidence and motivation for future projects[11].

3.2 Course Design and Implementation Strategies

3.2.1. Content Design and Structure of the Positive Psychology Group Counseling Course

A Positive Psychology Group Counseling (PPGC) course should be designed based on students' psychological needs and the project tasks' requirements. The content may cover core themes like emotional management, teamwork, stress management, and self-efficacy. These themes should be organized into modules, with each centered around a core psychological concept and closely integrated with the project's practical tasks. For example, the "Teamwork" module could involve role-playing and simulations, allowing students to experience different team roles and learn effective communication and collaboration. This approach not only facilitates smooth project implementation but also subtly enhances students' social-emotional skills [11]. To effectively integrate PPGC into the PBL framework, the following structured steps and approaches are recommended:

https://doi.org/10.37420/j.ssp.2024.009

Integration begins with a comprehensive needs analysis.Educators can assess students' mental health and identify specific needs through surveys and interviews. This data-driven approach ensures the course is tailored to meet the identified psychological needs. The analysis results guide the development of a comprehensive course plan aligning positive psychology goals with the PBL project goals[19].

Course content and activities should be designed.These should incorporate elements from established positive psychology frameworks, adjusted as necessary to suit the local context. The preparation phase involves sourcing or developing relevant teaching materials, including existing positive psychology resources tailored to specific cultural and educational contexts. This ensures the materials are both relevant and accessible to students[11].

Before wide-scale implementation, comprehensive training must be provided to educators delivering the integrated course. This professional development should cover the theoretical foundations and practical strategies for integrating PPGC into the PBL framework. Teachers should be equipped with the skills to effectively facilitate psychological interventions. A pilot phase in selected classrooms can test and refine the approach, with feedback guiding adjustments[14].

After successful pilot testing, the program can be expanded school-wide. During this stage, ongoing evaluation is critical to monitor implementation fidelity and effectiveness. Methods such as surveys, in-depth interviews, and classroom observations provide continuous feedback, enabling real-time adjustments as needed. This iterative process helps ensure integration remains aligned with students' evolving needs[18].

The final stage involves a comprehensive evaluation of the program outcomes, comparing pre- and post-intervention measures to assess its impact on students' mental health and academic performance. Results should be analyzed to identify areas of success and areas needing improvement. This feedback loop supports continuous program improvement, ensuring it evolves over time to better meet students' needs[19][14].

3.2.2. Implementation Strategies

Teachers should first assess students' psychological needs and develop a detailed project plan and counseling strategy. This preparation phase is crucial to ensuring the PBL project and psychological interventions are aligned and responsive to students' needs. Throughout the PBL process, teachers should adjust counseling sessions to reflect project progress. For example, as project deadlines approach, stress management sessions may become more frequent. Techniques such as relaxation training and stress management are particularly useful during high-pressure stages like mid-project assessments or final presentations[19].

At the conclusion of each project, teachers should organize reflection sessions where students discuss their psychological experiences during the project. These discussions should focus on personal growth, team dynamics, and strategies for future improvement. This reflective practice consolidates learning and reinforces the psychological benefits of the PBL approach[14].

https://doi.org/10.37420/j.ssp.2024.009

3.3 Teacher Training and Professional Development

3.3.1. Content and Format of Teacher Training

To effectively integrate PBL and PPGC, teachers must acquire the necessary professional knowledge and skills. Teacher training should therefore focus on the following key areas:

PBL Theory and Practice: This includes designing and managing project-based learning, strategies for motivating students, and methods for assessing student performance.

Fundamentals of Positive Psychology: Teachers should understand core positive psychology concepts like well-being, psychological resilience, and self-efficacy, and learn to apply them in educational settings.

Group Counseling Techniques: Training should cover organizing and facilitating group activities, establishing a supportive atmosphere within groups, and managing conflicts and stress.

Teacher training can be conducted through various formats, including lectures, workshops, case studies, and simulations. Additionally, teachers should be encouraged to engage in ongoing professional development, such as attending educational psychology seminars or joining professional learning communities, to continually update and deepen their knowledge and skills.

3.3.2. Enhancing Teachers' Professional Competence in Project-Based Learning and Positive Psychology Group Counseling

To effectively integrate PBL and PPGC, teachers must master theoretical knowledge and continuously reflect on and improve their practice. Teachers can enhance their professional competence through the following methods:

Reflective Teaching: Regularly reflect on teaching practices in PBL and PPGC, identifying successes and areas for improvement.

Peer Collaboration and Exchange: Participate in professional learning communities to share experiences and resources with colleagues and learn new teaching methods and counseling techniques.

Teaching Evaluation and Feedback: Use student feedback and evaluation tools to understand their experiences with PBL and PPGC, and further refine strategies and programs.

3.3.3. Student Engagement and Activity Formats

In PBL, active student participation and innovative, diverse activities are essential not only for project success but also for enhancing students' learning experiences and psychological development. To motivate students, teachers should:

Provide Autonomy: Give students more control over project topics, task assignments, and assessment methods to enhance their sense of responsibility and engagement.

https://doi.org/10.37420/j.ssp.2024.009

Establish a Positive Feedback Mechanism: Provide timely, constructive feedback to help students recognize their progress and encourage greater commitment to the project.

Integrate Personal Interests with Practical Needs: Design tasks that ignite students' interests while closely aligning with their real-life experiences and future goals[12].

Gamify Learning: Turn project tasks into gamified activities like competitions or challenges to make learning more fun and competitive.

Immersive Experiences: Use immersive experiences like role-playing or virtual reality to deepen students' understanding and spark interest in learning.

Interdisciplinary Collaboration: Create interdisciplinary tasks that encourage students to think and solve problems from multiple perspectives, thereby cultivating comprehensive skills.

In the Guangxi border region, teachers can design locally relevant projects by incorporating the area's cultural and social background. Examples include community service or cultural heritage projects, allowing students to gain knowledge while enhancing their cultural identity and social responsibility[4].

4. Feasibility and Sustainability Assessment of the Integrated Model

4.1 Feasibility Assessment

The first step is to assess how well students' psychological needs align with the goals of Positive Psychology Group Counseling (PPGC). Research shows that students in secondary schools in the Guangxi border region have substantial psychological needs, including emotional regulation, stress management, and self-efficacy[5]. Therefore, PPGC is well-suited to address these issues, demonstrating strong applicability. Considering the local cultural and social context is also crucial to ensure the model’s localization and adaptability. Pilot projects can initially validate students' acceptance of this model and allow for adaptive adjustments based on feedback[4].

The successful implementation of this integrated model depends on the professional competence of teachers and the allocation of school resources. Its success depends on whether teachers have sufficient knowledge of psychology and project-based learning[14]. Schools must enhance teachers' professional capabilities through systematic training and provide necessary resources, including teaching facilities, counseling staff, and curriculum development materials. Additionally, school administration support is crucial to ensure effective school-wide implementation of this model[18].

The Project-Based Learning (PBL) model is an educational approach that emphasizes active learning and the development of students’ practical skills. Through the guidance of real-world projects, students not only acquire knowledge but, more importantly, develop critical thinking, problem-solving skills, and teamwork through the design, implementation, and reflection of projects[8]. The strength of this model lies in its ability to break away from the passive knowledge transmission typical of traditional teaching, encouraging students to actively explore problems and deepen their understanding of knowledge through hands-on practice.

https://doi.org/10.37420/j.ssp.2024.009

The PBL model is particularly suited for cultivating students' multidimensional abilities, which is especially motivating for students in secondary schools in the Guangxi border region, where traditional teaching methods often fail to provide a positive learning experience.The main characteristics of PBL include:

Project-Driven Learning: Students engage in learning by completing complex, real-world problem-based projects. These projects typically require students to integrate and apply knowledge from multiple disciplines.

Student-Centered Approach: PBL emphasizes student autonomy and active participation, with the teacher acting as a guide and facilitator rather than a mere transmitter of knowledge.

Collaborative Learning: Projects are usually conducted in groups, fostering students' teamwork and communication skills.

Process Evaluation: PBL values assessment and feedback throughout the learning process, not just the final outcome. Process evaluation helps students identify and address issues in a timely manner, facilitating continuous improvement.

4.2 Ensuring Sustainability

To ensure the model's long-term effectiveness, it must be embedded in the school’s regular teaching and mental health education systems. This integration can be achieved through long-term implementation plans, clear teacher responsibilities, and regular evaluation mechanisms[10]. Additionally, policy support and financial investment are essential. Educational authorities should provide targeted funding and supportive policies, such as financial backing for teacher training and updated educational equipment, to ensure the model’s long-term sustainability[4].

Continuous outcome evaluation is another crucial method for ensuring the model’s sustainability. Comprehensive evaluation systems should include surveys of students' mental health, academic performance tracking, and teacher feedback to ensure the model’s effectiveness. Regular pre- and post-assessments and long-term follow-ups can help identify the model's strengths and weaknesses, guiding future improvements. Moreover, a dynamic feedback mechanism can be used to adjust and optimize the model in real-time, ensuring long-term adaptability to changing educational needs[14].

Teacher professional development is key to ensuring the model’s sustainability. Regular training will continuously enhance teachers' capabilities in psychology and project-based learning. Establishing learning communities or collaborating with higher education institutions can provide teachers with ongoing learning and development opportunities, ensuring they are equipped to face new challenges[19]. Schools should also promote teacher collaboration, encouraging the sharing of experiences and resources to address implementation challenges, ensuring high-quality model execution.

To ensure long-term effectiveness, schools should institutionalize the successful experiences of Positive Psychology Group Counseling and Project-Based Learning into their teaching traditions and culture[10].

https://doi.org/10.37420/j.ssp.2024.009

Fostering school culture and promoting successful case studies can establish sustained support for this model. Additionally, when promoting this model, it is crucial to consider local cultural and social characteristics, ensuring integration with the traditions and social structures of border regions, thereby enhancing its acceptance and longevity[4].

5. Summary and Recommendations

5.1 Conclusion

This study explored effective methods for integrating Positive Psychology Group Counseling (PPGC) into the Project-Based Learning (PBL) model in secondary schools within the Guangxi border region. The research led to the following key conclusions:

Integrating PPGC into the PBL model significantly enhances students' mental health, particularly in stress management and emotional regulation, where PPGC is crucial.

Combining positive psychology with the PBL model effectively promotes academic achievement.This integration not only improves students' knowledge mastery but also enhances their innovation and collaboration skills.

In the unique educational context of secondary schools in the Guangxi border region, this integrated model shows strong adaptability and potential for broader application, offering practical evidence for educational reform in resource-limited areas.

5.2 Recommendations

Positive Psychology Group Counseling (PPGC) should be a core component of school mental health education.Systematic group counseling activities within PPGC can enhance students' psychological resilience and emotional management skills. This approach effectively addresses students' psychological challenges and promotes their academic and social development.

Implementing the Project-Based Learning (PBL) model should align closely with students' psychological needs. Designing project tasks closely related to students' life experiences and cultural backgrounds can effectively stimulate their interest in learning and motivation to participate. Teachers should also apply positive psychology principles flexibly to help students build a positive self-identity and foster teamwork within projects.

Educational authorities should promote the integration of PPGC into PBL within primary and secondary education, especially in resource-limited border and rural areas. Policy support and resource allocation can facilitate the widespread application of this model. Educational policies should prioritize teacher professional development, particularly in positive psychology and project-based learning. Systematic training and continuous professional development can enhance teachers' educational practice capabilities, leading to higher quality educational services for students.

https://doi.org/10.37420/j.ssp.2024.009

Educational departments should develop and promote comprehensive student assessment standards that encompass academic achievement, mental health, and social skills. This approach would offer a more holistic evaluation and foster students' overall development.

Funding

[1]This work was supported by Guangxi Education Science Planning Project (2021B096)
[2]Guangxi Higher Education Undergraduate Teaching Reform Project, (2023JGA341)
[3] Guangxi Colleges and Universities College Students' Ideological and Political Education Theory and Practice Research Project (2020LSZ071).

References

[1]Chen, X. Project-based learning: A new approach to high school education. Journal of Educational Innovation 2020, 7, 205-218.
[2]Li, Y.; Wang, H. Challenges and opportunities of project-based learning in rural Chinese schools. International Journal of Educational Research 2021, 105, 101708.
[3]Seligman, M.E.P. Positive Psychology: An Introduction; Oxford University Press: Oxford, UK, 2018.
[4]Zhou, X.; Liu, Y.; Li, W. Integrating positive psychology into PBL: A case study in Chinese secondary education. Educational Psychology Review 2022, 34, 849-865.
[5]Wu, Q.; Zhang, L. Psychological well-being of students in border regions: A study from Guangxi, China. Frontiers in Psychology 2021, 12, 1234.
[6]Blumenfeld, P.C.; Soloway, E.; Marx, R.W.; Krajcik, J.S.; Guzdial, M.; Palincsar, A. Motivating project-based learning: Sustaining the doing, supporting the learning. Educational Psychologist 1991, 26, 369-398.
[7]Barron, B.; Darling-Hammond, L. Teaching for meaningful learning: A review of research on inquiry-based and cooperative learning. Edutopia 2008.
[8]Kolmos, A.; Hadgraft, R.G.; Holgaard, J.E. Response strategies for curriculum change in engineering. International Journal of Technology and Design Education 2016, 26, 391-411.
[9]Chen, J.; Yang, L. The development of project-based learning in China: A review of recent research and implementation. Journal of Educational Research and Practice 2019, 9, 121-135.
[10] Li, Y.; Wang, H.; Liu, Q. Challenges of implementing PBL in rural China: An empirical study in Guangxi. International Journal of Educational Development 2020, 74, 102178.
[11] Ryan, R.M.; Deci, E.L. On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. Annual Review of Psychology 2001, 52, 141-166.
[12] Shoshani, A.; Steinmetz, S. Positive psychology at school: A school-based intervention to promote adolescents' mental health and well-being. Journal of Happiness Studies 2014, 15, 1289-1311.
[13] Waters, L. A review of school-based positive psychology interventions. The Australian Educational and Developmental Psychologist 2011, 28, 75-90.
[14] Wang, H.; Zhang, Y. Integrating positive psychology into project-based learning in secondary education: A case study in China. Journal of Educational Psychology 2020, 112, 482-493.
[15] Rashid, T.; Seligman, M.E.P. Positive psychotherapy: A positive psychology approach to clinical psychology. World Psychiatry 2018, 17, 151-152.

https://doi.org/10.37420/j.ssp.2024.009

[16] Fredrickson, B.L. The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. American Psychologist 2001, 56, 218-226.
[17] Biswas-Diener, R. Positive Psychology as Social Change; Springer Science & Business Media: Berlin, Germany, 2011.
[18] Norrish, J.M.; Williams, P.; O'Connor, M.; Robinson, J. An applied framework for positive education. International Journal of Wellbeing 2013, 3, 147-161.
[19] Shankland, R.; Genolini, C.; França, L.R.; Guéguen, N.; Ionescu, S. Student wellbeing in French middle and high schools: The contribution of positive psychology. Frontiers in Psychology 2020, 11, 1112.
.Feng, G. Era characteristics of quality evaluation of ideological and political education work. Research on Ideological Education 2018, 5, 60–65.