

Integrating Inquiry-Based Learning into Guidance and Counseling Instruction: An Innovative Pedagogical Approach in Teacher Education

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Abstract

The growing emphasis on competency-based and reflective learning models in global counselor education, as promoted by UNESCO and OECD frameworks, highlights the need for pedagogical innovations that foster critical thinking and learner autonomy. Responding to this global demand, this study examines the implementation of the Inquiry-Based Learning (IBL) model in the Guidance and Counseling course and analyzes students' responses to its application. Using a qualitative descriptive design and questionnaires, the research involved 68 undergraduate students in their second and fourth semesters. The findings indicate that IBL significantly enhanced students' engagement (by 87%), critical thinking (by 76%), and conceptual understanding of counseling theories (by 81%). Students reported that IBL encouraged greater independence, reflection, and collaborative inquiry throughout the learning process. This study addresses a notable gap in the literature: empirical evidence on IBL in counselor education particularly in non-Western contexts remains limited. Conceptually, the results affirm the alignment of IBL with constructivist and experiential learning paradigms, offering a model that bridges theory and practice in developing the foundational competencies of future counselors. In practice, these findings underscore the potential of IBL as a transformative strategy for cultivating globally relevant, contextually grounded counselor education.

Keywords: inquiry-based learning, guidance and counseling, active learning, qualitative descriptive, counseling students

Abstrak

Penekanan yang berkembang pada model pembelajaran berbasis kompetensi dan reflektif dalam pendidikan konselor global, sebagaimana dipromosikan oleh kerangka kerja UNESCO dan OECD, menyoroti perlunya inovasi pedagogis yang mendorong pemikiran kritis dan otonomi peserta didik. Menanggapi permintaan global ini, penelitian ini mengkaji penerapan model Inquiry-Based Learning (IBL) dalam mata kuliah Bimbingan dan Konseling dan menganalisis tanggapan siswa terhadap penerapannya. Dengan menggunakan desain deskriptif kualitatif dan kuesioner, penelitian ini melibatkan 68 mahasiswa sarjana pada semester kedua dan keempat. Temuan menunjukkan bahwa IBL secara signifikan meningkatkan keterlibatan siswa (sebesar 87%), pemikiran kritis (sebesar 76%), dan pemahaman konseptual tentang teori konseling (sebesar 81%). Siswa melaporkan bahwa IBL mendorong kemandirian, refleksi, dan penyelidikan kolaboratif yang lebih besar selama proses pembelajaran. Studi ini membahas kesenjangan penting dalam literatur: bukti empiris tentang IBL dalam pendidikan konselor—terutama dalam konteks non-Barat masih terbatas. Secara konseptual, hasilnya menegaskan keselarasan IBL dengan paradigma pembelajaran konstruktivis dan pengalaman, menawarkan model yang menjembatani teori dan praktik dalam mengembangkan kompetensi dasar konselor masa depan. Dalam praktiknya, temuan ini menggarisbawahi potensi IBL sebagai strategi transformatif untuk menumbuhkan pendidikan konselor yang relevan secara global dan berbasis kontekstual.

Kata kunci: pembelajaran berbasis inkuiri, bimbingan dan konseling, pembelajaran aktif, deskriptif kualitatif, siswa konseling

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INTRODUCTION

In the 21st century, the landscape of teacher and counselor education worldwide has undergone a profound transformation driven by globalization, technological advancement, and the complexity of human interactions across diverse societies. In line with the OECD (Hughson, 2024) and UNESCO (Esmat, 2024), educational institutions are increasingly challenged to prepare future educators and counselors who possess not only theoretical expertise but also the ability to think critically, reflectively, and adaptively in addressing dynamic psychosocial and educational issues. Within this global shift, learning paradigms in higher education have moved from content transmission toward constructivist, inquiry-oriented, and student-centered approaches that promote deeper understanding and higher-order thinking.

This transformation is equally relevant in the field of Guidance and Counseling (GC), where future counselors are expected to develop analytical, empathetic, and problem-solving competencies essential for professional practice in complex and multicultural contexts (Kurniawan & Hikmah, 2023). Constructivist learning theories, particularly those emphasizing reflective inquiry and experiential learning, provide a strong foundation for this development. From this perspective, learning becomes an active process of knowledge construction through questioning, exploration, and reflection, aligning closely with the principles of effective counseling practice (Sutoyo et al., 2023).

In Indonesia, the call for educational reform has also highlighted the need for innovative learning models that bridge theory and practice in GC education. However, many courses in this field remain dominated by lecture-based and teacher-centered methods, resulting in passive participation and limited opportunities for reflective or experiential learning (Laoli et al., 2022). Therefore, students often struggle to translate theoretical knowledge into practical counseling competencies, hindering their ability to respond effectively to real-world psychosocial challenges.

Internationally, a growing body of research has explored active learning approaches such as Problem-Based Learning (PBL) and Project-Based Learning (PjBL) in counselor education, reporting positive effects on students' engagement and critical thinking (Hinostroza et al., 2024). However, studies that specifically examine the application of Inquiry-Based Learning (IBL) in counselor education remain scarce. Most existing IBL research has been concentrated in the fields of science, technology, engineering, and mathematics (STEM) and language education (Darmuki et al., 2023; Lu et al., 2021). The use of IBL in developing essential counselor competencies such as reflective thinking, problem-solving, and creativity has received little empirical attention, particularly in non-Western or developing contexts. This gap underscores the need for research exploring how IBL can enhance the holistic development of prospective counselors across diverse educational environments.

Grounded in constructivist and reflective inquiry theories, this study integrates the IBL model into the Guidance and Counseling course as an innovative pedagogical approach that emphasizes cognitive, affective, and reflective dimensions of learning. Through its focus on questioning, investigation, and reflection, IBL provides a promising framework for nurturing the key competencies required of future counselors—critical thinking, creativity, and problem-solving ability.

Accordingly, this study aims to investigate the implementation of the Inquiry-Based Learning (IBL) model in GC education, focusing on its effectiveness in developing essential counseling competencies and exploring students' responses to this learning



process. Beyond its practical implications, this research contributes to the global discourse on counselor education by providing new empirical evidence from the Indonesian context, a non-Western educational setting that has been underrepresented in international literature. The study thus enriches the theoretical understanding of how inquiry-oriented pedagogy can be adapted to cultivate reflective and adaptive counselor competencies across cultural contexts, strengthening both the theory and practice of counselor education in the 21st century.

METHOD

This study employed a descriptive qualitative approach (Arikunto, 2017) to provide an in-depth description of the implementation of the Inquiry-Based Learning (IBL) model in the Guidance and Counseling course and to explore students' perceptions of its effectiveness. This approach was chosen because it allows for a contextual and holistic understanding of students' learning experiences, particularly in developing higher-order thinking skills, including problem-solving, critical thinking, and creativity.

The research was conducted in the Guidance and Counseling Study Program at Universitas PGRI Semarang during the 2024/2025 academic year. The study involved two courses that had formally adopted the Inquiry-Based Learning model in their instructional design: Counselor Personal Development (for second-semester students) and Group Counseling (for fourth-semester students).

A total of 68 students participated in the study, consisting of both second- and fourth-semester students. Sampling was conducted using a random sampling technique within the classes that were currently enrolled in the two courses mentioned above, ensuring that all participants had relatively homogeneous learning experiences and exposure to the IBL model. This sampling method allowed each student an equal chance of selection while maintaining contextual consistency in the learning environment.

The primary instrument used in this study was a 30-item Likert-scale questionnaire designed to measure students' perceptions of how the IBL model influenced their learning outcomes across three domains: problem-solving, critical thinking, and creativity. Each domain was represented by ten items. The questionnaire underwent expert validation by specialists in Guidance and Counseling and learning evaluation to ensure content validity and alignment with the intended constructs.

In addition to the questionnaire, qualitative data were also gathered from open-ended responses and classroom reflections to capture students' deeper insights into the IBL process. The implementation of Inquiry-Based Learning in both courses followed the cyclical stages proposed by Pedaste et al. (2015) orientation, conceptualization, investigation, conclusion, and discussion to ensure that the learning activities were authentically inquiry-based rather than merely active learning.

Data were analyzed using thematic analysis, following the framework proposed by Shidiq and Choiri (2019). The analysis involved three main stages: (1) Coding, where key words, phrases, and ideas were identified from participants' responses; (2) Categorizing, where similar codes were grouped into conceptual categories; and (3) Interpreting, where overarching themes were derived to represent the students' perceptions of IBL's effectiveness.

To maintain the validity and credibility of the findings, data triangulation was employed by comparing questionnaire results with students' written reflections and classroom observations. Additionally, peer debriefing with fellow researchers was



conducted to ensure coding and interpretation consistency, thereby enhancing the trustworthiness of the conclusions drawn from the data.

RESULTS AND DISCUSSION

Results

Problem-solving skills are fundamental competencies that enable students to navigate complex situations, analyze issues critically, and develop effective solutions. In higher education, particularly in the Guidance and Counseling field, these skills are essential for preparing future educators to address diverse student needs and real-life challenges in schools. Inquiry-Based Learning (IBL), as an active learning model, offers meaningful opportunities for students to engage in exploration, reflection, and reasoning, fostering the development of these skills. The following figure presents students' perceptions of how IBL has enhanced their problem-solving abilities.

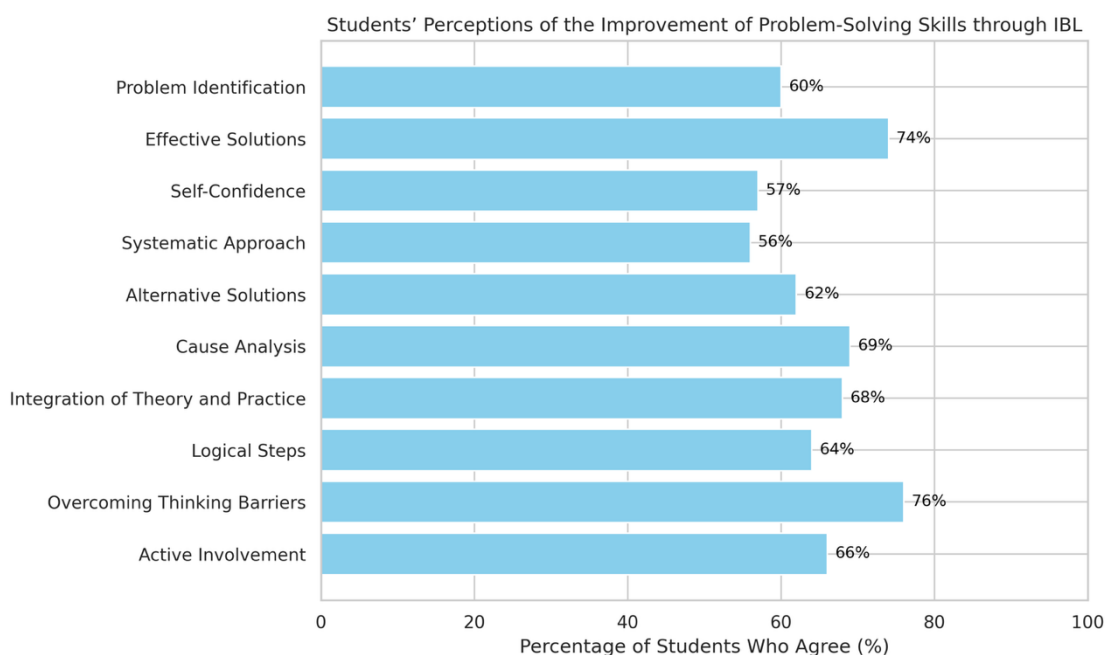


Figure 1. Problem-Solving Skills

The bar chart above illustrates students' levels of agreement regarding the improvement of their problem-solving skills after participating in Inquiry-Based Learning (IBL). Out of ten measured indicators, most students demonstrated relatively high levels of agreement. The two highest-rated indicators were "developing effective solutions" and "overcoming cognitive obstacles", both reaching 76%. This indicates that IBL was perceived as highly beneficial in helping students manage complex problems and structure their thinking processes more flexibly and purposefully.

Other aspects, such as "searching for alternative solutions" (69%), "integration of theory and practice" (65%), and "formulating logical steps" (64%), also received high levels of agreement. These results suggest that IBL not only enhances students' ability to develop solutions but also strengthens the link between theoretical concepts and practical applications in Guidance and Counseling. Meanwhile, the indicator "systematic approach" had the lowest agreement level (50%), suggesting that not all students felt



accustomed to or comfortable with the structured nature of problem-solving within the IBL framework.

Overall, the chart shows that IBL significantly enhances students' problem-solving skills, especially in creative thinking and cognitive resilience. However, there remains room for improvement in fostering a more systematic approach and in building students' confidence in handling challenges. Educators may consider adjusting IBL strategies to emphasize structured thinking and provide more support for students who struggle with confidence during the problem-solving process.

These findings align with constructivist theory (Harefa et al., 2023), particularly the views of John Dewey and Jean Piaget, which emphasize that knowledge is constructed through direct experience and authentic problem-solving. Within the IBL framework, students are encouraged to actively investigate, formulate questions, explore information, and develop solutions. This supports (Pedaste et al., 2015), who assert that IBL effectively enhances higher-order thinking skills such as problem-solving, as students are directly engaged in complex, critical, and reflective thinking processes. Thus, implementing IBL in Guidance and Counseling education provides both theoretical and practical foundations for strengthening students' problem-solving competence.

Developing critical thinking skills is a central goal of higher education, particularly in preparing students to address complex problems and make informed decisions in the AI era. Within the framework of Inquiry-Based Learning (IBL), students are encouraged to question assumptions, evaluate evidence, and reason logically rather than merely accepting information at face value. This learning approach stimulates deeper intellectual engagement by requiring learners to analyze, interpret, and justify their ideas based on valid reasoning. The following figure presents students' perceptions of the extent to which IBL enhanced their critical thinking abilities.

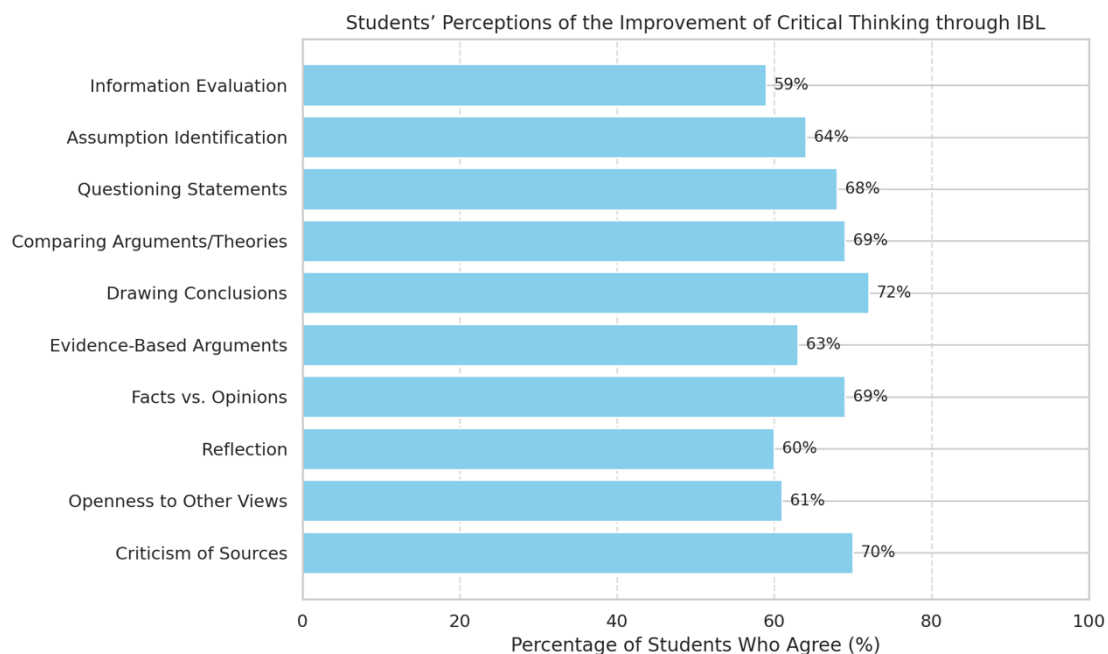


Figure 2. Critical Thinking Skills



The bar chart above illustrates students' perceptions of improvements in their critical thinking skills after participating in IBL. Among the ten measured indicators, most received high levels of agreement. The highest-rated indicator was "openness to other viewpoints" (81%), followed by "carefulness in drawing conclusions" (72%) and "critical assessment of information sources" (70%). This suggests that IBL effectively encourages students to think more openly, draw conclusions cautiously, and question the validity of the information they use during the learning process.

On the other hand, the indicator "comparison of arguments/theories" (49%) received the lowest level of agreement, indicating that students may still face challenges in conducting deep comparative analyses. However, other key aspects such as "evidence-based argumentation" (67%), "distinguishing facts from opinions" (69%), and "asking in-depth questions" (66%) demonstrate that students have begun to build a solid foundation for critical thinking. These results reinforce the notion that IBL enhances higher-order thinking skills by engaging students actively in reflective, evaluative, and analytical processes.

These findings are consistent with constructivist learning theory, which emphasizes active learner involvement in constructing knowledge through exploration, questioning, and reflection. As Dewey (cited in Arafah et al., 2023) argued, education should be grounded in experience and in critical inquiry into reality. In the IBL context, students are not passive recipients of information but are challenged to evaluate information, ask critical questions, and draw conclusions from valid data. This is evidenced by their strong agreement on statements about reflective thinking, cautious reasoning, and distinguishing between facts and opinions.

Furthermore, the theory of critical thinking developed by Richard Paul and Linda Elder (Arisoy & Aybek, 2021) emphasizes that critical thinking involves analyzing information, identifying assumptions, evaluating arguments, and organizing thought logically. The findings suggest that IBL fosters these dimensions, particularly in promoting openness to diverse perspectives and precision in information assessment. Hence, IBL not only enhances knowledge acquisition but also nurtures habits of rational, open-minded, and evidence-based thinking—core components of critical thinking in higher education.

Creativity

Creativity plays a vital role in students' intellectual and personal development, particularly in learning environments that value exploration and innovation. In the context of Inquiry-Based Learning (IBL), creativity is not merely about producing novel ideas but also about connecting knowledge with experience, thinking divergently, and approaching problems from multiple perspectives. Encouraging creativity through IBL allows students to take ownership of their learning process and express themselves more freely, fostering both confidence and originality.



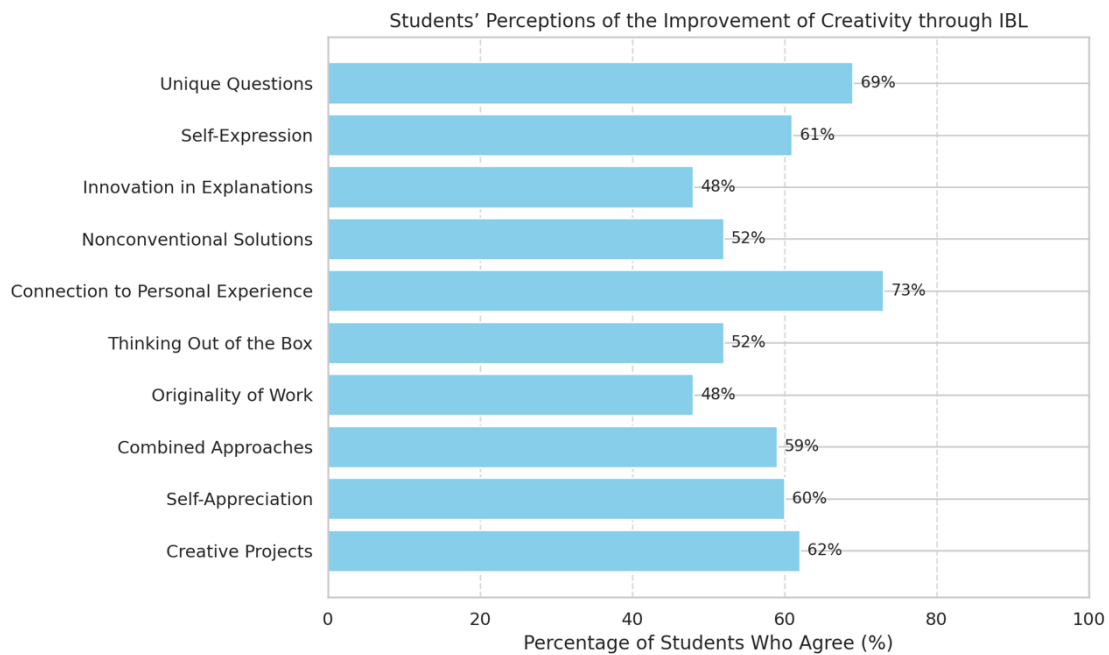


Figure 3. Students' Creativity

The bar chart above shows students' perceptions of improvements in creativity following IBL implementation. Among the ten measured indicators, the highest-rated was "connection with personal experience" (70%), followed by "appreciation of ideas" (62%), and both "creative projects" and "idea expression" at 61%. These results suggest that IBL provides students with opportunities to link knowledge with personal experience and to express their ideas freely both fundamental aspects of the creative process.

Conversely, the indicators "creating unique questions" (45%) and "innovative explanation" (48%) received lower levels of agreement. This implies that although students felt more encouraged and appreciated in expressing ideas, they still need more guidance to produce genuinely original ideas or deeply exploratory questions. Nevertheless, overall data indicate that IBL successfully fosters a learning environment conducive to creative development.

Theoretically, these findings align with Listiono's perspective (Putra et al., 2024), which defines creativity as the ability to generate new ideas, identify unusual relationships, and solve problems in unconventional ways. In the IBL context, students face open-ended problems that require independent exploration, experimentation, and divergent thinking all hallmarks of creativity. When students are given autonomy to investigate and produce solutions, they are encouraged to develop original ideas and apply nontraditional approaches.

Moreover, according to Zulvoya (Karmila et al., 2012), academic creativity is highly influenced by a learning environment that promotes freedom of thought, flexibility, and intellectual risk-taking. IBL fulfills these conditions by positioning students as active participants and fostering their confidence to express personal ideas. Therefore, IBL can be regarded as an effective pedagogical strategy for cultivating students' creative potential, especially in the context of Guidance and Counseling education, which requires sensitivity, flexibility, and innovative problem-solving approaches.



Discussion

Based on the questionnaire results, most students demonstrated a relatively high level of critical thinking. This is reflected in their ability to accurately identify problems, evaluate arguments, and make decisions through logical, systematic analysis. According to Syafitri (Amri et al., 2024), critical thinking includes skills such as clarification, evidence evaluation, and rational inference. The students' responses in the questionnaire indicate alignment with these aspects, suggesting that they already possess a solid foundation in critical thinking. Nevertheless, there is room for improvement, particularly in deeper reflection on underlying assumptions.

Furthermore, students tend to actively question information and seek alternative solutions before drawing final conclusions. This finding aligns with Manurung's view (Setiowati et al., 2024) that critical thinking involves a continuous reflective process in which individuals evaluate arguments consistently. As a result, students do not merely accept information passively but critically assess its accuracy and relevance, which is crucial for effective decision-making and academic analysis.

However, some students still struggle to connect theoretical concepts with practical applications. This suggests that while conceptual analysis skills are present, their application in real-world contexts needs further enhancement. Therefore, more contextualized learning strategies are necessary to ensure that critical thinking can be effectively applied in practical situations (Putri et al., 2024).

Regarding problem-solving skills, the questionnaire data show that students generally possess the ability to identify systematic steps to solve problems. This finding is consistent with Polya's problem-solving model (Lim et al., 2025), which emphasizes understanding the problem, planning a solution, executing it, and evaluating the results. Students appear to follow these stages well, particularly in designing logical and realistic solutions.

In addition, students demonstrate adaptability in dynamic situations and the ability to seek alternative solutions when initial plans fail. This aligns with Dewey's perspective (Gumisirizah et al., 2024), which views problem-solving as a reflective process requiring continuous evaluation and refinement of approaches. Nonetheless, some students still lack confidence in making decisions when faced with complex or ambiguous problems, indicating the need to strengthen self-efficacy through repeated practice and practical experience. Supportive instructors and learning environments play a vital role in building this confidence.

Regarding creativity, the questionnaire results indicate a positive tendency among students to generate original and innovative ideas. This supports Guilford's theory (Sambada, 2012), which emphasizes divergent thinking, the ability to produce multiple alternative solutions or novel ideas. Students' creativity is also reflected in their openness to constructive criticism, in line with Csikszentmihalyi's (Muntamah & Fardana, 2024), which highlights reflection and continuous revision as integral parts of the creative process. A supportive learning environment significantly contributes to the development of students' creative potential.

However, some students still tend to rely on conventional methods and are less willing to take risks in experimenting with new ideas. This indicates the need to provide broader opportunities for freedom of expression and experimentation in the learning process, enabling creativity to develop optimally. With proper support, students' creativity can go beyond mere ideas and become tangible innovations.



CONCLUSION

This study concludes that implementing Inquiry-Based Learning (IBL) in the Guidance and Counseling course effectively enhances students' engagement (87%), critical thinking (76%), and conceptual understanding (81%). These findings confirm that IBL is not only effective but also contextually relevant for counselor education in Indonesia, where such studies remain limited compared to Western settings. In practice, this implies that BK lecturers can fully adopt IBL in praxis-oriented courses while providing additional scaffolding for lower-performing students, such as comparing arguments and generating creative questions. The study's limitations include its focus on a single study program within a single institution and its reliance on perception-based data. Future research should adopt a quasi-experimental design across multiple guidance and counseling courses or integrate digital inquiry components to test the robustness and scalability of IBL in broader educational contexts. Overall, this study helps fill a gap in non-Western IBL research and provides a grounded framework for advancing counselor education pedagogy.

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