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Analysis of Needs for Development of Guidance and Counseling Textbooks based on Project-Based Learning (PjBL) and Case Studies

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Abstract. The aim of this research is to analyze the need for developing teaching materials for Guidance and Learning Counseling (BKB) courses based on Project-Based Learning (PjBL) and case studies. This research uses a quantitative approach with a survey method. The research respondents were 188 students from education study programs who took the Guidance and Study Counseling course. Data was collected through a needs questionnaire that measured student assessments of various textbook components and learning methods. The data was analyzed using descriptive quantitative to find the average value for each item/statement regarding the components of the BK Belajar textbook material. The results of the quantitative analysis show that students have a high assessment of components that are relevant to the real world, chapter summaries, practice questions, and multimedia elements such as videos and visuals. Passive learning components such as "effective lectures" were rated low. These findings strongly validate the urgency of developing innovative PjBL-based textbooks and case studies to increase students' understanding, motivation and practical skills, while making a significant contribution to improving the quality of education in the field of guidance and counseling.

Keywords:
Needs Analysis
Textbook
Project Based Learning
Case Study
Guidance and Counseling

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INTRODUCTION

The era of globalization and digitalization has fundamentally changed the landscape of higher education, demanding a paradigm shift from teacher-centered learning to student-centered learning (Mahany et al.,

2025). This shift emphasizes the active role of students in constructing knowledge and developing skills relevant to the challenges of the 21st century (Hoidn & Klemenčič, 2021).

The era of disruption and technological development has had a massive influence on every aspect of human life (Syahril, Krismona, & Umar, 2025). Technological developments and increasingly massive access to information, challenges in the learning process in higher education, especially in Guidance and Learning Counseling courses, are still a major concern. Students tend to experience boredom, have difficulty understanding the material, and lack full participation, which ultimately affects motivation and learning outcomes. Research by Ramdani et al (2025) found that students in the learning process tend to experience a decrease in motivation caused by internal and external factors. Rahayu et al (2022) research found that 44% of students at Muhammadiyyah University of Cirebon experienced learning boredom. This phenomenon is largely caused by learning methods that tend to be monotonous and less varied, such as lectures, which are unable to facilitate optimal involvement and development of students' practical skills (Susanti et al., 2024; Santoso, 2023; Kenedi, 2024;Rahman, 2025).

Previous research has confirmed that learning methods that are not varied can cause boredom and loss of focus in students. In the context of Guidance and Counselling, the effectiveness of services is greatly influenced by the teaching methods applied, which ideally must be able to bridge the gap between theory and practice.

Rahmat's research (2024) shows that 78% of students feel that the lecture method makes it difficult for them to understand the material being taught. Syamsurijal et al (2023) study found that 65% of students preferred interactive learning methods compared to traditional lecture methods.

Meanwhile, Kurniawan, (2020) research shows that of the 200 students involved, 55% admitted that they were less motivated when taught using the lecture method. Astuti & Alhidayatuddiniyah (2023) the research also found that 75% of teachers surveyed admitted that they still used the lecture method as the main method, even though 85% identified students as tending to show boredom during the teaching and learning process. Research ethics: All 188 students provided informed consent; data were collected after the lecture, anonymized, and used for research purposes only. Study program permission has been obtained.

The urgency of innovation in the learning process, one of which is by integrating learning methods that are more interactive and oriented to real experience. One promising approach is a combination of methods (Kenedi, 2024; Sukarman, 2025).

Usmeldi's (2019) research (2019) found that students who took part in learning using the PBL method showed a better level of understanding in the practicum process compared to conventional learning. Zen et al. research (2022) shows that the application of PBL contributes 38.2% to students' interest in entrepreneurship and shows the relevance of PBL in forming practical skills and innovation in the world of work. Ningzi et al (2021) Research also found that students who learned through PBL showed an increase in problem solving skills of up to 50% after undergoing practicum activities. This research indicates that the PjBL learning method makes a positive contribution to practical learning.

The case study learning method is demonstrated by research Ningzi et al (2021) who found the development of critical thinking skills and empowerment by training participants after participating in case study learning. Mulyadi et al (2023) in the findings describe students who learn through case studies show better results in understanding concepts and analytical skills compared to traditional teaching. Suranti et al (2016) in research found students who participated in case studies showed substantial improvements in analytical skills compared to conventional learning methods. Previous research findings illustrate that learning methods through case studies have a positive impact on improving critical thinking skills.

The use of learning methods with PjBL and case studies has urgency in supporting an optimal learning process. PjBL facilitates students' active involvement in designing, implementing, and evaluating projects relevant to real-world contexts, while case studies train students' critical and analytical thinking skills through concrete problem solving (Hanif & Abdurrahman, 2024; Putri et al., 2025). The integration of PjBL and case studies in the learning process is a new breakthrough in

supporting successful learning.

A number of recent studies support the effectiveness of PjBL and case studies in higher education. Sarman & Yusra (2024) found that PjBL was effective in improving students' counseling implementation skills, with the average score increasing significantly from 72.16 to 95.89 after the intervention. Other research also shows that the integration of PjBL and case studies can improve critical, analytical and collaborative skills, which are essential for preparing students for the world of work. In addition, the need for innovative and contextual teaching materials is increasingly urgent. Other research highlights the importance of interactive digital media, such as digital storytelling, to improve literacy and communication skills in the technological era. Today's students tend to prefer digital platforms such as Zoom, Google Classroom, and YouTube to access learning materials, which indicates that textbook development can no longer be limited to print formats, but must integrate interesting digital elements (Pradana et al., 2024).

Based on this background, this research has a dual objective: (1) to obtain an overview of the need for developing teaching materials for the Guidance and Counseling course based on PjBL and case studies, and (2) to validate the urgency of developing prototypes of innovative teaching materials. By analyzing students' needs in depth, this research attempts to bridge the gap between conventional learning practices and the demands of modern education, as well as providing a strong empirical foundation for development (Kenedi, 2024; Sukarman, 2025; Capraro et al., 2013).

METHOD

This research uses a quantitative approach with a descriptive needs analysis survey design to map the needs for developing teaching materials for Guidance and Counseling (BKB) courses based on PjBL and case studies. This design was chosen because it efficiently collects preferences, perceptions and priority features of teaching materials in the student population, as well as providing an empirical basis for the next stage of product design.

The research subjects were 188 students taking guidance and learning counseling courses in the 2024/2025 academic year. The total sampling technique was applied to all study guidance and counseling course takers; participation is voluntary with informed consent and anonymization of data. Assuming a conservative proportion of $p = 0.5$, this sample size provides a stable estimate for mapping study program level needs.

Table 1. Respondent Demographic

Variable	Information
Responden	188 students
Age	20–22 years (Majority Range)
Class of 2022	135 students have been on the program
Class of 2023	53 students are programming

The instrument is in the form of a needs questionnaire that assesses the components of Content/Materials, Media & Learning Resources, Strategy/Model (PjBL & case studies), Learning Support, and Process & Involvement. The scale used is Likert 1–5 (1 = strongly disagree to 5 = strongly agree). The results of the item validity test showed that 29/29 items were valid ($r_{count} > rit$ criteria ≥ 0.30), and Cronbach's internal reliability $\alpha = 0.902$ (very reliable).

Data collection is carried out offline and online. For the Class of 2023 it will be done offline after lectures at meeting VII for ± 20 minutes and for the Class of 2022 it will be done online via the WhatsApp group platform with a deadline for filling in 2 days; Filling is facilitated by teaching assistants with standard instructions. Respondents assessed based on actual experience following learning guidance and counseling courses.

The questionnaire used in this research consisted of 29 statement items in the form of 27 closed items using a 1–5 Likert scale and 2 open items. The instrument testing process was carried out on 20 students who were given it via Google form at the first meeting of the learning guidance and counseling course. Respondents were asked to provide an assessment based on their experience of taking the Guidance and Study Counseling course. The validity of the questionnaire can be seen in table 2.

Table 2. Validity of Questionnaire for the needs of textbook components and learning methods (n=188)

Item	rit (corrected item–total)	Criteria (rit ≥ 0,30)	Decision
1	0.512	≥ 0,30	Valid
2	0.486	≥ 0,30	Valid
3	0.621	≥ 0,30	Valid
4	0.433	≥ 0,30	Valid
5	0.401	≥ 0,30	Valid
6	0.378	≥ 0,30	Valid
7	0.465	≥ 0,30	Valid
8	0.349	≥ 0,30	Valid
9	0.336	≥ 0,30	Valid
10	0.529	≥ 0,30	Valid
11	0.415	≥ 0,30	Valid
12	0.482	≥ 0,30	Valid
13	0.358	≥ 0,30	Valid
14	0.391	≥ 0,30	Valid
15	0.444	≥ 0,30	Valid
16	0.501	≥ 0,30	Valid
17	0.472	≥ 0,30	Valid
18	0.388	≥ 0,30	Valid
19	0.330	≥ 0,30	Valid
20	0.423	≥ 0,30	Valid
21	0.397	≥ 0,30	Valid
22	0.467	≥ 0,30	Valid
23	0.515	≥ 0,30	Valid
24	0.478	≥ 0,30	Valid
25	0.342	≥ 0,30	Valid
26	0.325	≥ 0,30	Valid
27	0.364	≥ 0,30	Valid
28	0.354	≥ 0,30	Valid
29	0.598	≥ 0,30	Valid

Based on table 2 above, information was obtained that 29 items had a calculated r value > 0.312. Obtaining this figure can be interpreted if all items are declared valid. This step indicates that the instruments used by researchers are appropriate for measuring the need for textbook components and learning methods. The results of obtaining instrument reliability can be seen in table 3.

Based on table 3, it can be seen that the Cronbach's alpha value is 0.902. The figure obtained 0.902 is in the very reliable category. Analysis uses descriptive statistics (mean, standard deviation) at the item and aspect level. Mean interpretation (scale 1–5): < 2.34 = low; 2.34–< 3.67 = moderate; ≥ 3.67 = high. These categories are used consistently throughout reporting of figures. BK Learning teaching materials are based on Project-Based Learning (PjBL) and case studies as a basis for product development.

Table 3. Reliability of Questionnaire for the needs of Textbook components and Learning methods (n=188)

Number of Item	Cronbach's Alpha	Reliability Criteria	Decision
29	0,902	Very Reliable (α ≥ 0,80)	Reliale Instrument

RESULT AND DISCUSSION

The results of quantitative analysis from the needs questionnaire show the average student assessment of various textbook components and learning methods. Student assessments of the Textbook component of the BK Learning course can be seen in table 4.

The research results can be grouped into three categories based on the average scores, which reflect students' priorities and preferences. Top Priority Needs (Score > 4.0): Student indicates. There is a very high need for textbook components that are oriented towards practical application and ease of understanding. The items with the highest scores were "Case study relevant to the real world" (4.1), "Summary each chapter makes it easier" (4.1), "Practice questions & answer keys" (4.0), "Videos help understand abstract concepts" (4.0), and "Visual media helps learning" (4.0).

Important Needs (Score 3.5-3.9): This category includes a preference for textbooks that are comprehensive, structured, and support interaction. High scores were also given to "Glossary of important terms" (3.9), "Need a digital textbook" (3.9), "Practice guide is definitely helpful" (3.9), as well as "Lecturer feedback is useful" (3.8). Innovative learning methods such as PjBL and case studies are also considered effective in increasing motivation, engagement and critical thinking skills, with average scores ranging from 3.6 to 3.8.

Less Interesting Needs (Score < 3.5): Items related to conventional learning methods and learning challenges show a lower mean score. The lowest scores were given to the items "Lack of involvement in class" (3.2), "Effective lecture" (3.3), and "Difficulty understanding the material" (3.3).

Table 4. Average student assessment of the BK Learning Textbook components (n=188)

Statement Items	Average Score (1-5)
Case studies are relevant to the real world	4.1
A summary of each chapter makes things easier	4.1
Practice questions & answer key	4.0
Videos help understand abstract concepts	4.0
Visual media helps learning	4.0
Need practical case examples	3.9
Glossary of important terms	3.9
Need digital textbooks	3.9
The practice guide is definitely helpful	3.9
Lecturer feedback is useful	3.8
Practice gives theoretical therapy a chance	3.8
PjBL & Case Study to make it effective	3.8
Simulation improves practical skills	3.8
Group projects are necessary	3.7
Good experience with Guidance and Learning Counseling courses	3.7
PjBL increases engagement	3.7
PjBL & Case Study increase motivation	3.7
Case Study develops critical thinking	3.6
Need a printed textbook	3.6
Motivation & interest influence learning	3.5
Learning Managementnet System helps access materials & discussions	3.5
Easy to understand the material	3.5
Relevant case examples	3.5
Material as needed	3.4
Active in class	3.3
Difficulty understanding the material	3.3
Effective lectures	3.3
Less involved in class	3.2

The average value of the textbook components and learning methods in general is 3.67. A value of 3.67 can be interpreted if in general textbooks and learning methods are in the important needs category.

The aspects contained in the textbook components and learning methods are media and learning resources, content/teaching materials, learning strategies and models, learning support, and learning processes and involvement. The following results based on aspects can be seen in Figure 1.

Based on figure 1, It can be seen that the Content/Material aspect of Teaching Materials (3.81) shows that students assess the content of teaching materials as quite relevant to the real world. Students also find it helpful to have summaries, glossaries, and the availability of textbooks in print and digital form.

Media and Learning Resources with an average value of (3.83). This aspect received the highest score. This means that students really need support from learning media such as videos, visual media, and Learning Management Systems (LMS) to help understand the material. Interactive media is considered the most effective in supporting the learning process.

Learning Strategies and Models (3.77). Students assess the use of Project-Based Learning (PjBL), Case Study, and simulation/direct practice as effective in increasing skills, motivation and engagement. However, the score is still lower than learning media, so this method needs to be further optimized.

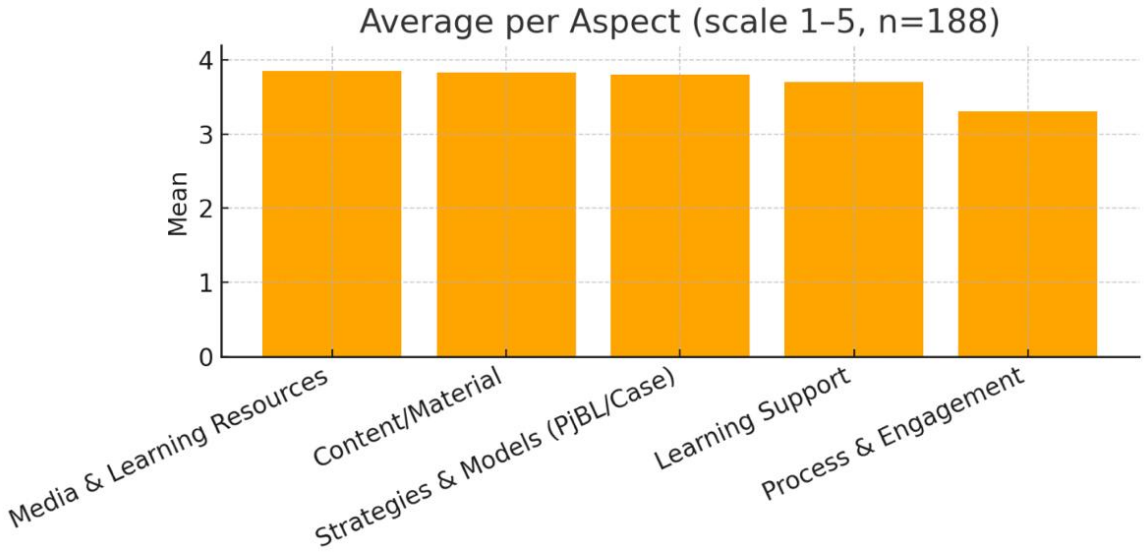

Figure 1. Aspects of textbook components and learning methods (n=188)

Learning Support (3.67) Lecturer feedback, positive learning experiences, and motivation/interest in learning are considered important, but their value is not as high as other aspects. Findings indicate a need for improvement in providing feedback and personal support to students.

Learning Process & Engagement (3.30)

This aspect received the lowest score. Students still have difficulty understanding the material, feel less active, and assess lectures as less effective. Low engagement indicates the need for innovation in teaching strategies so that students are more active and motivated.

The needs profile confirms that the combination of contextual content and interactive media is needed high, while the involvement of the learning process is still weak. The integration of PjBL & case studies (with chapter summaries, exercises & keys, and multimedia elements) is a direct, data-driven response to those need patterns, not just a design preference.

Discussion

The research results showed the highest scores in the aspects of relevant case studies, summaries per chapter, practice questions with answer keys, as well as visual and video media, confirming that students demand teaching materials that are practical, easy to understand, and oriented towards real application. These findings are relevant to 21st century educational trends which emphasize the connection between theory and practice (Yin, 2009; Putri et al., 2025).

Student preferences for glossaries, digital textbooks, clear practice guides, and lecturer feedback show that apart from practical aspects, students also want a comprehensive material structure and two-way interaction in the learning process. Support for innovative methods such as PjBL and case studies strengthens motivation and develops critical thinking (Hanif & Abdurrahman, 2024; Putri et al., 2025).

Low scores on lectures, low engagement in class, and difficulty understanding the material indicate that students no longer rate traditional lecture methods as effective. This trend underscores a shift in the learning paradigm, where students prefer active learning that demands direct involvement (Susanti et al., 2024; Santoso, 2023).

Needs analysis is a fundamental step in educational development, especially in the context of developing Guidance and Counseling (BK) textbooks that are based on Project-based Learning (PjBL) and digitized. In the midst of educational transformation triggered by technological advances and new needs among Indonesian students. In the context of developing PjBL-based guidance and counseling textbooks, analysis of student needs must include an understanding of existing learning resources as well as the obstacles faced in using these sources. The implementation of education cannot be free from various obstacles, including those experienced by participants as subjects in education (Syahril, Krismona, Yanti,

2025). Research Malina et al (2021) showed that 95.5% of students had a handbook for studying physics, but 52.3% felt that the book was inadequate and 93.2% of students needed additional learning resources. This shows the need to develop textbooks that are not only effective but also interesting and easy for students to understand.

Izzania's (2022) research results emphasize the importance of integrating PjBL with a STEAM approach that is oriented towards real and practical experience. The integration of digitalization in BK textbooks is also very relevant, because it can reach students throughout Indonesia and allows greater accessibility to learning materials. Guidance and counseling make a significant contribution in forming learning independence and social advocacy which is important in the context of higher education (Nurhayati & Is, 2024).

The importance of social advocacy in guidance and counseling education in schools (Merlin-Knoblich et al., 2024). This step creates fair access and opportunities for all students, as well as to address existing educational inequities. PjBL-based textbooks can be designed to integrate topics regarding social justice and advocacy, equipping students with the skills necessary to respond to challenges in society. Digitalization as a tool in the learning process also deserves attention. However, existing references do not support claims about how technology integration can improve learning effectiveness and student engagement in guidance and counseling contexts (Wetherill et al., 2019).

Research by Gumono (2021) and (Daulay et al., 2020) shows the need for a systematic approach in identifying and understanding student and teacher needs. Needs analysis is not just about gathering information, it also includes developing solutions based on relevant data, including feedback from end users, such as students and teachers (Ricky et al., 2023). In this way, needs analysis can provide empirical validation of previously identified problems, as well as offer clear direction in the development of relevant and efficient teaching materials. This research shows that a deep understanding of the local context and the specific characteristics of students is necessary to create effective textbooks. For example, using a contextual-based approach in textbooks can increase the relevance of teaching material to students' life experiences (Sari, 2020). This phenomenon is also supported by other research which shows that textbooks developed based on local needs can produce significant improvements in student learning outcomes. By involving stakeholders in the needs analysis process, such as teachers and students, textbook development can be more focused and in line with students' expectations and needs, contributing not only to aspects of academic education, but also to the development of character and values (Paramitha et al., 2023; Paramitha et al., 2023).

This finding directly links the issues raised with students' assessments of textbooks. Students tend to experience boredom and lack of participation due to monotonous learning methods, and this quantitative data proves this. The very low mean scores on "effective lectures" (3.3) and "less engaged in class" (3.2) indicate that conventional lecture-based methods are no longer relevant or effective for students. In contrast, items related to PjBL and case studies, such as "PjBL & Case Study make it effective" (3.8) and "PjBL increase engagement" (3.7), received significantly higher scores. This creates a compelling causal argument: the dissonance between current teaching methods (lectures) and student preferences (practicals, PjBL, case studies) is the main cause of the problem of burnout and low participation. Thus, the development of PjBL-based textbooks and case studies is not just a theoretical innovation, but a direct response to the empirical validation of existing problems (Susanti, 2024; (Santoso, 2023; Hanif & Abdurrahman, 2024).

Data on student needs implies that textbook design must go beyond textual content. Students gave very high scores to multimedia elements such as "video helps understand abstract concepts" (4.0) and "visual media helps learning" (4.0), and expressed the need for "digital textbooks" (3.9). This is consistent with research showing that today's students rely heavily on digital platforms to support learning and that interactive digital media such as digital storytelling are effective in improving 21st century skills. Therefore, the textbook prototype being developed must be designed as an interactive digital teaching material, integrating videos, embedded case examples, and an interactive glossary. This design will address student preferences for ease of access and intuitive features, which are often obstacles in

existing digital learning platforms (Pradana et al., 2024).

These findings also provide insight into the transformation of the lecturer's role. Although students rated "effective lecture" low, they gave high scores to "useful lecturer feedback" (3.8). This shows that students do not want passive learning, but really value meaningful interactions with lecturers. In the PjBL model and case studies, the lecturer's role shifts from transmitter of information to facilitator, mentor, and provider of constructive feedback. Thus, the transition to this learning method will create a synergy between innovative methods and students' preferences for valuable interactions with lecturers, which in turn can increase motivation and overall learning outcomes (Hanif & Abdurrahman, 2024; (Hoidn & Klemenčič, 2021).

This needs analysis confirms that the development of PjBL-based Learning Guidance and Counseling textbooks and case studies is a very relevant and needed solution. This method is not only in line with global educational trends towards more contextual and student-centered learning, but also directly responds to empirical validation of the learning preferences and challenges faced by students at Makassar State University (Kenedi, 2024; Sukarman, 2025).

In general, the textbook and learning method components obtained a score of 3.67, which indicates that they are in the important needs category. This finding reflects that students feel the need to have good access to textbooks as a source of relevant and up-to-date information. It is hoped that the availability of adequate textbooks can facilitate understanding of the concepts being taught, as well as provide the references needed to study related subjects. Previous research shows that access to quality teaching materials can significantly influence student academic achievement (Permatasari, 2024; Budiarto & Jazuli, 2021). This phenomenon emphasizes the importance of educational institutions to provide textbooks that are not only available in print format but also in digital format, so that they can be accessed easily and flexibly according to students' needs in the current digital era (Krismadinata et al., 2019).

The content/material aspect of teaching materials, with an average score of 3.81, shows that students feel that the content presented is quite relevant to the real world. This is in line with research which shows that content relevance is very important in increasing learning motivation. The availability of textbooks in print and digital form strengthens information accessibility, supporting data which states that varied learning media can contribute to improving student learning outcomes (Permatasari, 2024).

Media and Learning Resources aspect, this aspect received the highest score (3.83), illustrating that students really need support in the form of interactive learning media such as videos and Learning Management Systems (LMS). Research shows that the use of multimedia in learning, including interactive videos, can increase student motivation and involvement in learning activities (Budiarto & Jazuli, 2021; Krismadinata et al., 2019). Interactive media is considered the most effective, which is in line with literature which confirms that interactive media can facilitate better understanding in students, create a more dynamic and interesting learning atmosphere. (Wahyuni & Candra, 2024).

In the Strategy and Learning Model aspect, students identified Project-Based Learning (PjBL) and case study-based learning methods as effective approaches, with a score of 3.77. PjBL is proven to not only improve students' practical skills and motivation, but also increase their involvement in the learning process (Usmeldi, 2019; Suranti et al., 2016). However, even though the score is lower compared to learning media, the importance of this strategy indicates the need for optimization in its application so that this method can be applied more widely and effectively in the classroom.

Learning Support had a score of 3.67, indicating that students consider lecturer feedback and positive learning experiences to be important, although the ratings are not as high as other aspects. These findings emphasize the need for improvement in providing constructive feedback and personal support to students, which can foster their academic growth (Truong, 2016). Support can create a more inclusive learning atmosphere and encourage student learning motivation (Yanto, 2019).

Finally, the Learning Process & Engagement aspect received the lowest score (3.30). This shows that students still have

difficulty understanding the material and feel less active in learning. This low level of engagement shows the need for innovation in teaching strategies so that students are more active and involved during the learning process (Adepoju & Nwulu, 2020; Erna et al., 2021).

Considering that an interactive and participatory learning process has a positive effect on improving learning outcomes, innovation in teaching methods is very necessary to increase student engagement in the classroom (Putri et al., 2021).

The study is descriptive in nature so it does not test causality; data taken from one study program in a single period; and the instrument assesses perceptions, not actual behavior. Generalizations require caution; Further studies are recommended with comparative/experimental designs.

CONCLUSION AND SUGGESTIONS

Based on the analysis of student needs, it can be concluded that conventional learning methods, such as lectures, are considered less effective and are one of the causes of low student participation and boredom in Guidance and Learning Counseling courses. On the other hand, there is a very strong need for teaching materials that are practical, relevant to the real world, and supported by interactive and multimedia elements. Practice-based learning components such as case studies and projects, as well as supporting elements such as summaries, practice questions, videos and glossaries, have a high priority for students. These findings validate the urgency to develop BKB course textbooks that integrate Project-Based Learning methods and case studies as a direct response to current student learning preferences and challenges.

The needs analysis is recommended to continue this research to the development stage in the ADDIE model, namely the design, design and development stages. At this stage, an innovative textbook prototype should be designed by integrating the findings from this analysis, including the use of real case studies, collaborative projects, visual and video elements, and interactive digital formats. Thus, it is hoped that the resulting textbook can be an effective solution for increasing students' understanding, motivation and practical skills, as well as improving the quality of guidance and counseling education in higher education.

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