

# Challenges in Writing a Research Paper: Study of Undergraduate Students' Experiences

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## Abstract

*This study aims to describe the difficulties of undergraduate students in writing research papers, intending to determine the prevalence of these difficulties. This research uses quantitative descriptive methods. The research subjects are 47 undergraduate students actively engaged in writing research papers. The data were collected through a questionnaire capturing students' responses to assess their difficulties in the research paper writing process. The survey investigated the key areas where students struggle in writing about research, including procedures, difficulties with selecting a research topic, choosing an appropriate methodology, and interpreting and discussing data. The result of this research shows that undergraduate students experience difficulty with writing research papers, particularly in picking a feasible topic and creating a good title, identifying and defining an appropriate problem, and effectively elaborating on findings and their implications. The study identified potential areas for improvement in research training and support services to address the students' difficulties. The finding highlights the need for targeted interventions, such as seminars on research methodology and writing skills, as well as better time management tactics, to improve the research writing experience.*

**Keyword:** research paper writing, problem, undergraduate students, challenges, research training and support services

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## INTRODUCTION

Writing a research paper is a fundamental task for undergraduate students. It represents a critical opportunity to synthesize knowledge, develop analytical skills, and contribute to academic discourse. However, many students experience significant difficulties throughout this process, hindering the completion of their research projects. This study aims to explore the challenges faced by undergraduate students, particularly Bachelor of Elementary Education (BEEd) students, when writing research papers, providing insights into the specific barriers they encounter during the research writing process.

One prominent difficulty stems from a lack of familiarity with the research writing process, itself. As noted by Cooley and Lewkowicz (2024), students often struggle with structuring their writing coherently and in a balanced manner. The task of articulating complex ideas and framing research questions can be overwhelming, particularly for those with limited academic writing experience. The challenges extend beyond mere structural issues; students frequently grapple with language barriers that complicate their ability to express thoughts clearly and link ideas effectively.

Furthermore, Ali et al. (2022) identified problems students often encounter in delineating a clear research problem statement, which is foundational for guiding their research efforts. By breaking down research problems into manageable phases, anxiety associated with this early stage of writing can be reduced; however, many students continue to feel daunted by the task.

Content issues also emerge as significant obstacles to the research writing process. For instance, Fauzan et al. (2022) highlight that students often find it challenging to develop a well-informed research background. A robust understanding of the existing literature and the ability to critically engage with relevant sources is crucial for establishing a solid foundation for their research. Unfortunately, many undergraduate students lack access to academic resources or the skills to navigate academic databases effectively.

Moreover, writing discussions based on their findings poses another significant challenge for BEEd students. According to Syafryadin et al. (2023), students frequently encounter difficulties articulating their interpretations of data, analogous to the challenges associated with writing discussion sections of theses. This gap in interpreting and contextualizing data not only limits their ability to convey findings but also affects their overall confidence in their research capabilities.

To address these challenges, comprehensive support systems—such as writing workshops, mentorship programs, and enhanced access to resources—are essential. Safitri et al. (2021) argue that facilitating academic writing skills training can significantly improve students' proficiency and reduce writing difficulties. Furthermore, writing research papers is a complex process for undergraduate BEEd students that involves both structural and content-related issues. This study seeks to identify these challenges in greater depth while emphasizing the importance of institutional support in fostering students' research writing skills. By understanding these barriers and implementing targeted interventions, educational institutions can enhance the overall research experience for undergraduate students. This will prepare them to contribute meaningfully to education.

## OBJECTIVES OF THE STUDY

The researcher wanted to make and develop recommendations for educators, institutions, and policymakers on how to improve support systems, enhance research skills development, and create a more conducive environment for undergraduate research writing. The research questions of this study are the following:

1. What is the students' difficulty in selecting the steps for writing research papers?
2. What is the students' difficulty in selecting the appropriate methodology?
3. What is the students' difficulty in interpreting and discussing the data?

## REVIEW OF LITERATURE

### Challenges in Writing a Research Paper

One of the primary challenges identified in the literature is the structural complexity of research papers. Cooley and Lewkowicz (2024) highlighted that students often struggle with organizing their thoughts coherently across various sections of a research paper, including the title, introduction, methodology, and conclusion. This structural challenge is compounded by the necessity of maintaining a logical flow of ideas, which can be particularly daunting for those unfamiliar with academic writing conventions. Similarly, Bulqiyah et al. (2021) emphasize that students frequently encounter issues with coherence and the correct structuring of their essays, indicating a broader trend of difficulties with academic writing that extends beyond mere content creation. Language proficiency also plays a critical role in the writing process. Research indicates that inadequate vocabulary and grammatical errors are significant barriers to effective writing. For instance, Hatmanto (2021) notes that students often lack the necessary vocabulary to articulate their ideas clearly, which can lead to poorly constructed arguments and diminished clarity in their writing. This sentiment is echoed by Bram and Angelina (2022), who assert that English as a second language (ESL) students face additional hurdles due to language interference from their native tongues, which can complicate the writing process. Moreover, the psychological aspects of writing cannot be overlooked. Many students experience anxiety and lack confidence when facing the task of writing a research paper. This is particularly evident in Rizwan and Naas (2022), who report that students often feel overwhelmed by the expectations associated with thesis writing, leading to procrastination and avoidance behaviors. The pressure to publish in high impact journals, as discussed by Duracinský et al. (2017), can exacerbate these feelings, as researchers may perceive their writing skills as inadequate compared to their peers. In addition, external factors such as time constraints and a lack of resources significantly impede the writing process. Oshiro et al. (2019) found that competing responsibilities, such as patient care and administrative duties, often leave researchers with insufficient time to dedicate to writing. Furthermore, Safitri et al. (2021) identified a lack of access to relevant literature and resources as a critical barrier for students, which can hinder their ability to produce well-informed and comprehensive research papers. Indeed, the challenges associated with writing research papers are multifaceted, encompassing structural, linguistic, psychological, and external factors. Addressing these challenges requires a comprehensive approach that includes targeted writing instruction, increased access to resources, and strategies to build confidence among students and researchers. By understanding and mitigating these barriers, educational institutions can better support their students in developing the necessary skills for successful academic writing.

Students' Experiences with Writing Research Papers, The

experiences of students with writing research papers are multifaceted and often fraught with challenges. A significant factor influencing students' writing experiences is their level of self-efficacy and anxiety regarding writing tasks. Research indicates that students who have more experience with writing and successfully publishing papers tend to exhibit lower levels of anxiety and higher self-efficacy regarding their writing abilities. This relationship underscores the importance of writing experience in fostering confidence among graduate students, particularly in disciplines such as counselling psychology (Ho, 2015).

The development of effective teaching materials tailored for scientific writing is also crucial. Studies have shown that students express a strong need for structured teaching resources that guide them through the process of writing scientific papers. The implementation of a process-genre approach to teaching materials has been highlighted as beneficial for enhancing students' writing skills (Indrawati et al., 2020). This approach not only addresses the technical aspects of writing but also engages students in a more interactive learning process, thereby augmenting their overall writing competence.

In addition to instructional materials, the use of assessment rubrics has been found to significantly aid students in their writing endeavors. A study demonstrated that well-designed rubrics can clarify expectations and provide specific criteria that guide students in their research writing tasks. This structured feedback mechanism is instrumental for ameliorating students' writing quality and understanding of the requirements for successful research papers (Bukhari et al., 2021).

Despite these supportive measures, many students still face considerable challenges in writing scientific papers. A prevalent issue is the lack of interest and motivation among students, particularly in regions such as Indonesia, where students have been reported to struggle with the fundamental skills necessary for effective scientific writing (Nasution, 2023). This lack of engagement can be attributed to various factors, including insufficient exposure to writing practices and inadequate training in research methodologies (Nisa et al., 2023).

Furthermore, students often encounter difficulties in generating ideas, structuring their papers, and adhering to scientific conventions. These challenges are compounded by a lack of resources and guidance, which can lead to frustration and decreased motivation (Dubicki, 2015). The integration of problem-based learning and other innovative teaching strategies has been suggested to enhance students' writing skills and foster a more profound understanding of the research process (Sari et al., 2021).

Last, the experiences of students in writing research papers are shaped by a combination of their self-efficacy, the quality of instructional materials, the use of assessment tools, and the challenges they face. Addressing these factors through targeted educational strategies can significantly improve students' writing experiences and outcomes in academic settings.

## METHODOLOGY

### Design

In this study, a descriptive research design was employed using a quantitative approach. Specifically, it aimed to collect quantitative data to analyze the challenges that undergraduate students encounter when writing research papers. Questionnaires were utilized to collect data. The data were then analyzed using statistical tools to identify patterns, trends, and common difficulties encountered by students. Through this approach, students' abilities to write research papers could be evaluated and measured objectively. .

### Respondents

The study was conducted at Central Philippines State University, Hinoba-an Campus, in the municipality of Hinoba-an. The respondents were 47 BEED 4 undergraduate students enrolled in the Bachelor of Elementary Education program and taking the research subject.

### Population

This study used a total enumeration approach, in which all students enrolled in the research subject under the Bachelor of Elementary Education program were surveyed. Using this approach, it was possible to ensure the representation of every student in the target population, which allowed a comprehensive and accurate analysis of the difficulties that students face in writing research papers.

## Research Instrument

The research instrument used in this study was adapted from Siti Kholija Sitompul (2022). This instrument was specifically designed to explore the various difficulties encountered by students in the research writing process, covering aspects such as topic selection, research methodology, interpreting and discussing data, and academic writing skills.

## Data Collection and Procedure

First, the researcher distributed questionnaires to students enrolled in the Bachelor of Elementary Education program. Detailed instructions were provided to participants to ensure that they understood the purpose of the study and how to complete the questionnaire correctly.

Second, after the students completed the questionnaires, the researcher collected and organized the data. To ensure the accuracy and completeness of the collected information, the information was reviewed and analyzed.

Last, to ensure clarity and the comprehensive interpretation of the findings, the data were analyzed by a statistician. The results were then presented in tabular and graphic formats. This made it easier to identify trends and draw meaningful conclusions regarding students' challenges in writing research papers.

## Data analysis

As part of the data analysis process, the mean was used to determine the average score regarding the challenges faced by undergraduate students in writing research papers. A quantitative approach was used to measure students' experiences, resulting in a better understanding of the common difficulties they faced.

## RESULT AND DISCUSSION

### Students' Perceived Difficulties in Selecting Research Paper Steps

Items	Mean	SD	Interpretation
1. I felt difficulty in selecting the topic and making the title suitable for my interest in research.	4.81	1.12	Agree
2. I faced difficulty in identifying and formulating the right problem in research.	4.70	1.14	Agree
3. I felt it hard to identify the research gap in my research background.	4.32	1.11	Slightly Agree
4. I felt it hard in elaborate research niche (research importance) in my research background.	4.43	1.04	Slightly Agree
5. I felt difficulty in differentiating research niches and significance.	4.40	1.06	Slightly Agree
Total	4.53	1.10	Agree

The result demonstrates the students' perceived difficulties in selecting the steps for writing a research paper presents the mean scores, standard deviations, and interpretations of student responses to five items related to the initial stages of research paper development. As shown in the table, students generally agreed (overall mean = 4.53, SD = 1.10) that they experienced difficulties with these early research steps. Specifically, students reported the highest level of difficulty in selecting a research topic and formulating a suitable title (Item 1, M = 4.81, SD = 1.12), followed closely by identifying and formulating the research problem (Item 2, M = 4.70, SD = 1.14). While still indicating some level of difficulty, students reported slightly lower, though still notable, challenges in identifying the research gap (Item 3, M = 4.32, SD = 1.11), elaborating on the research niche or importance (Item 4, M = 4.43, SD = 1.04), and differentiating between the research niche and significance (Item 5, M = 4.40, SD = 1.06). These findings reveal that students may struggle most with the initial conceptualization and planning stages of research, particularly in defining a clear and focused research direction.

According to Erlinda et al. (2022), students perceive research methodologies as technical, contributing to the challenge of developing compelling titles that reflect their interests. Additionally, Sitompul and Anditasari (2022) found that students frequently encounter challenges in the early stages of their research projects, including selecting an appropriate research topic and developing a descriptive title that accurately conveys their findings. The

### Students' Perceived Difficulties in Selecting Appropriate Research Methodology

Items	Mean	SD	Interpretation
6. I always felt a dilemma in selecting an appropriate research method for my selected research issue.	4.45	1.04	Agree

7. I felt difficulty differentiating data and data sources.	4.49	1.12	Agree
8. I felt difficulty in determining the sample in terms of considering an adequate or representative sample.	4.21	0.93	Slightly Agree
9. I felt hard to find an appropriate instrument to collect research data.	4.26	1.07	Slightly Agree
10. In the research method, I always get stuck on designing instruments (making statements or questions).	4.13	1.15	Slightly Agree
Total	4.31	1.07	Slightly Agree

The result shows the students' perceived difficulties in selecting an appropriate research methodology. The table presents the mean scores, standard deviations, and interpretations of student responses to five items related to methodological challenges in research. As shown in Table 1, students generally slightly agreed (overall mean = 4.31, SD = 1.07) that they experienced difficulties in selecting appropriate research methods. Students reported the highest level of difficulty in selecting an appropriate research method for their chosen research issue (Item 6, M = 4.45, SD = 1.04) and differentiating data and data sources (Item 7, M = 4.49, SD = 1.12). While still indicating some level of difficulty, students reported slightly fewer challenges in determining an appropriate sample size (Item 8, M = 4.21, SD = 0.93), finding an appropriate instrument for data collection (Item 9, M = 4.26, SD = 1.07), and designing research instruments (Item 10, M = 4.13, SD = 1.15). These findings show that students may struggle most with the initial conceptualization and planning stages of research methodology to choose a suitable method and understand data collection nuances.

Based on the results, several scholars have observed that many students perceive research methodologies as complex and technical, which exacerbates their anxiety (Erlinda et al., 2022). Students struggle with understanding the fundamental concepts of various research methods, which hinders their ability to select the most appropriate approach for their studies. In addition, the lack of practical application of these methods further contributes to their uncertainty (Erlinda et al., 2022).

#### Students' Perceived Difficulties in Interpreting and Discussing the Data

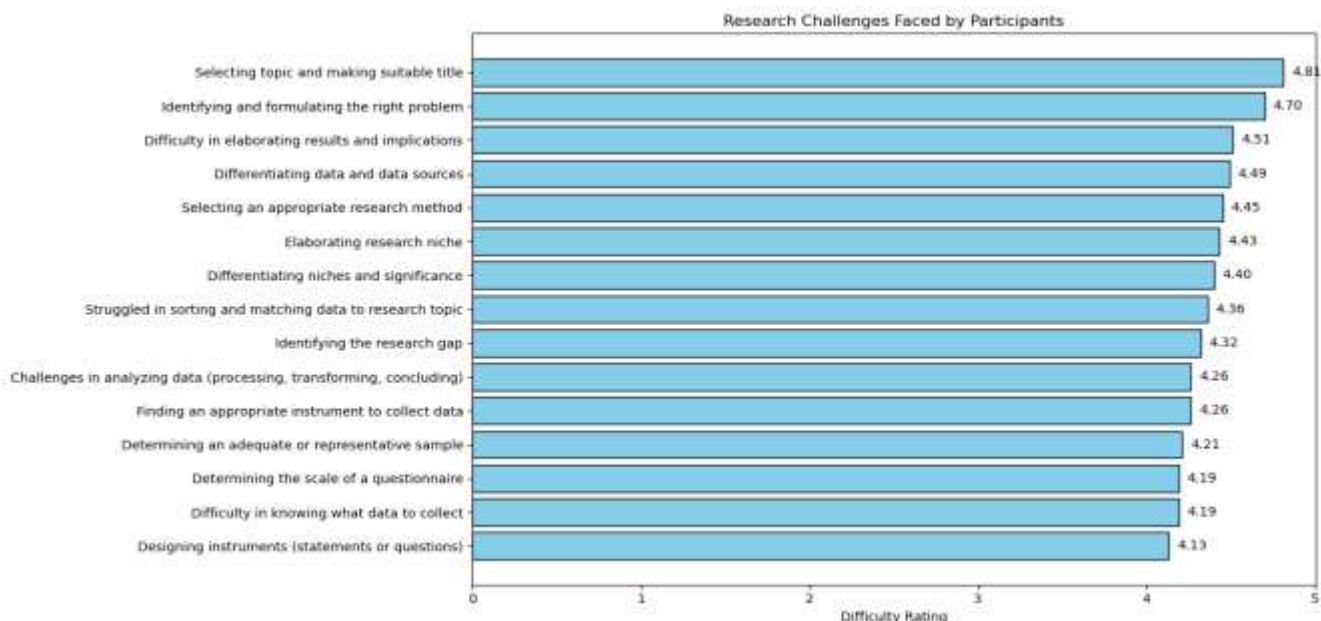
Items	Mean	SD	Interpretation
11. I sometimes felt difficulty in determining the scale of a questionnaire.	4.19	1.24	Slightly Agree
12. Although the instruments were provided, I always felt difficulty in collecting the data in terms of I did not know what to collect.	4.19	0.99	Slightly Agree
13. The same as data collection-analyzing the data is always the most challenging step for me in terms of processing, transforming, and/or informing conclusions from the data obtained.	4.26	1.19	Slightly Agree
14. I also struggled to organize, sort, and match data into the research topic investigated.	4.36	1.11	Slightly Agree
15. Although I knew how to compare my results with other studies, I still get difficulties in identifying and elaborating the results to reach their implications.	4.51	1.12	Agree
Total	4.30	1.13	Slightly Agree

The result shows students' perceived difficulties in interpreting and discussing research data. The Table 3 presents the mean scores, standard deviations, and interpretations of student responses to five items related to challenges encountered during data analysis and discussion. As shown in Table 3 students generally slightly agreed (overall mean = 4.30, SD = 1.13) that they experienced difficulties in these later research stages. Students reported the highest level of difficulty in identifying and elaborating on results to reach their implications (Item 15, M = 4.51, SD = 1.12), indicating that connecting findings to broader contexts and drawing meaningful conclusions posed a significant challenge. Struggles were also noted in organizing, sorting, and matching data to the research topic (Item 14, M = 4.36, SD = 1.11). While still representing areas of difficulty, students reported slightly fewer challenges in determining the scale of a questionnaire (Item 11, M = 4.19, SD = 1.24), collecting data when instruments were provided (Item 12, M = 4.19, SD = 0.99), and analyzing data, including processing, transforming, and drawing conclusions (Item 13, M = 4.26, SD = 1.19). Correspondingly it appears that students may struggle with interpreting and discussing research findings. This specifically concerns connecting their findings to the existing literature and drawing meaningful implications.

According to Ali et al. (2024), many students struggle with basic mathematical concepts and statistical reasoning, which directly affects their ability to engage with data effectively. Consequently, this deficiency is particularly evident when

dealing with complex graphical representations or statistical outputs. The process of interpreting the results of a research study may be challenging for students.

Additionally, Sartika et al. and Ashari et al. (2023) emphasized that students often lack the necessary tools needed to analyze data appropriately, resulting in difficulty in drawing meaningful conclusions. Without a solid understanding of data interpretation principles, students may misrepresent findings or fail to recognize essential trends and correlations. This may lead to erroneous conclusions.



The bar chart visualizes the difficulties faced by participants in conducting research, based on their responses and mean difficulty ratings. The challenges are arranged in descending order, highlighting the most critical issues at the top. The highest-rated challenge, with a mean score of 4.81, is "Selecting topic and making a suitable title," indicating that participants find it particularly difficult to choose a research topic and craft an appropriate title. This is followed by "Identifying and formulating the right problem" (4.70), showing struggles in clearly defining the research problem.

Other notable difficulties include "Difficulty in elaborating results and implications" (4.51) and "Differentiating data and data sources" (4.49). These responses suggest challenges in the analysis and interpretation phase of research. Informants also reported issues with "Selecting an appropriate research method" (4.45) and "Elaborating research niche" (4.43), reflecting their uncertainty about methodological decisions and defining the scope of their studies.

Lower-rated difficulties, while still significant, include "Designing instruments (statements or questions)" (4.13), "Difficulty in knowing what data to collect" (4.19), and "Determining the scale of a questionnaire" (4.19). In these areas, respondents encounter challenges, but consider them less challenging than identifying and articulating research problems.

## CONCLUSION

The results of this study indicate that undergraduate students encounter significant difficulties at different stages of their research. Selecting a research topic and developing a suitable title were reported to be the most difficult aspects of the process. It appears that students have a difficult time focusing their ideas and defining a clear direction for their studies. Similarly, identifying and formulating a research problem posed considerable difficulties, as students found it challenging to frame their research within a well-defined scope. Additionally, selecting appropriate research methods and differentiating between various data sources were major obstacles. This indicates gaps in students' understanding of methodological frameworks and data collection techniques. These challenges highlight the need for stronger foundational research skills to help students navigate the complexities of academic inquiry.

Furthermore, students reported significant struggles with analyzing and interpreting their research findings. This was particularly important for connecting results to broader contexts and drawing meaningful conclusions. Even though students may be able to gather and present data, they may have difficulty making critical interpretations and evaluating the significance of their findings. The inability to effectively elaborate on research results limits coherent and impactful

studies. Overall, these findings underscore the need for enhanced research training, structured guidance, and targeted academic support. In this way, students can overcome these difficulties and develop crucial research writing skills.

### Recommendation

Based on the summary of the findings and conclusions of this study, following are its recommendations: The university should implement structured guidance and support systems for students to help them overcome the difficulties associated with writing research papers. To provide students with clear, step-by-step instructions on selecting a research topic, formulating a research problem, and selecting appropriate research methodologies, faculty members should provide clear, step-by-step instructions. Workshops and seminars focusing on research design, data collection techniques, and data analysis would prepare students to successfully navigate the research process. Furthermore, integrating research-related activities into coursework at an earlier stage of an academic program can help students gradually gain confidence and competence in conducting independent research.

In addition, universities should offer mentoring programs to enable students to engage in discussions with faculty members and peers about their research progress to address students' difficulties with interpreting and elaborating on research findings. By providing access to research databases, reference materials, and online resources, students can further enhance their ability to differentiate between data sources and apply relevant research methods. The encouragement of collaborative research projects and peer review sessions could also enhance students' analytical skills and their ability to draw meaningful conclusions from their findings. Providing continuous academic support and strengthening research training can significantly enhance students' research competencies and academic achievement.

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