

Students' Readiness in Conducting Research: Basis for an Intervention Plan

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Abstract:

This research examined the readiness level of third-year students from Eastern Samar State University - Guiuan Campus for research, with an emphasis on their awareness of handling technical research writing and completing the key parts of a research paper. This study utilized a descriptive - correlational research design, and through an adapted survey questionnaire, the researchers gathered the data from 307 respondents. First, the participants seemed to be at a moderate level of preparedness (overall mean = 3.69) for technical aspects of writing, and (mean = 3.64) for the writing of the major parts of a research paper. Students all similarly had a higher degree of preparedness related to the technical aspects such as formatting research papers (mean = 3.81) or selecting research designs (mean = 3.88) but faced difficulty conceptualizing research problems and theories, more specifically when doing grounded theory research (mean = 3.45). A set of challenges that affected students' preparedness were also identified, and they found financial barriers (mean = 3.67) to be the most significant followed by poor digital literacy (mean = 3.21). A moderate correlation ($r = 0.444$) was found between students challenges and their preparedness for technical writing, while a strong correlation ($r = 0.543$) was seen between the challenges students faced to their preparedness to writing the major parts of a research paper. This shows that with a higher degree of challenges students experienced a lower degree of preparedness, indicating clear institutional support is needed. In this light, the study proposed the intervention program which included workshops on conceptualizing a research study, digital literacy, financial aide and mentorship programs to help engage students in a way to understand and explore possible challenges to their preparedness for research, as well as improve their overall readiness to conduct research, and ultimately do quality research for high quality researched based studies.

Keywords: Research Readiness, Technical Writing, Major Parts of the Research, Possible Challenges in research, Eastern Samar State University Guiuan Campus.

INTRODUCTION

Background of the Study

The ability to conduct research is a crucial skill in higher education, notably contributing to professional development and students' academic success. Research readiness includes expertness such as intellectual development, research methodology, and critical thinking. In recent times,

interest in evaluating students' research readiness has grown, especially with the rise of online learning and technology.

According to Asio (2023), accounting students have to be ready for manuscript writing and research. Results showed that students possess enough knowledge of the process of research and were mostly ready. It is necessary to train students in their fields, such as accounting. In'am et al. (2023) discovered that microteaching enhances the educational, personal and social skills of prospective mathematics teachers, enriching their readiness for teaching and pedagogical research. This is a support towards research readiness being interdisciplinary. Iranian learners had difficulty using technology for the learning of English language. Moosavi (2020) points to technological challenges of research. Kuzminska et al. (2021) emphasized digital competence as a highly-requisite PhD student competence in Ukraine, especially amid COVID-19. Bachtiar (2022) investigated Indonesian high school students' attitude to online learning. At first, students had bad attitudes, but after using the tool, their attitudes were better. This means readiness can change. According to Widiastuti et al. (2023), the implementation of a module on employability skills had a significant effect in increasing final-year students' research preparedness. These researchers were interested to ascertain the readiness of undergraduates. They discovered that the ability to communicate effectively across various contexts is valuable research readiness, as opposed to methodolog. The study by Olefirenko etl al. (2021) threw light on how external stakeholders like faculty and industry can improve students' research readiness and career preparedness. According to their findings, institutional support and collaboration are important. This study is motivated by the need to develop students' readiness to conduct research, a key higher education competence. Many students have difficulty structuring key sections of research papers and complex methodologies. This study focuses on the evaluation of students' competencies in the area as well as the problems which they face in writing introduction, methodology, results, and discussion, and the intervention program. The aim is to enhance the research education provided to students so they effectively prepare for both academic and professional life.

Statement of the Problem

Research is a critical skill in higher education, and students' ability to conduct it effectively plays a vital role in their academic and professional development. This study focuses on assessing the research readiness of third-year students at Eastern Samar State University – Guiuan Campus. Based on the findings, an intervention program will be created to support their growth as student researchers.

Specifically, the study seeks to answer the following questions:

1. What is the level of research readiness among the students in the following areas?
 - 1.1. Technical aspects of research writing
 - 1.2. Writing the major parts of a research paper, including:
 - Introduction
 - Methodology
 - Results and Discussion

- Conclusion and Recommendation
 - References
 - Abstract
2. What challenges do students face when conducting research?
 3. Is there a relationship between students' level of research readiness and the challenges they experience?
 4. What kind of intervention program can be developed based on the results of the study?

Importance of the Study

Understanding how prepared students are to conduct research—and the obstacles they face—can make a significant impact on how educators design instruction and support services. The insights from this study will be valuable to several key stakeholders:

For Policymakers

The study offers data-driven insights into students' preparedness and challenges in research. This information can inform policies that promote stronger research instruction, including the integration of research skills into the curriculum and the development of supportive programs across academic levels.

For Eastern Samar State University – Guiuan Campus

The University will gain a clearer understanding of the areas where students may need additional guidance. This can lead to initiatives such as research training workshops, enhanced faculty mentorship, and improved access to research tools—ultimately fostering a stronger academic and research environment.

For Research Instructors

Educators will benefit from a deeper understanding of students' specific struggles, whether in writing, research design, or organization. This will allow instructors to refine their teaching strategies, offer more tailored support, and develop resources that align with students' actual needs.

For Students

Students will gain a clearer picture of their current research capabilities. The findings can highlight both strengths and areas for improvement, while also connecting students to resources and programs that will build their confidence and competence in research.

For Future Researchers

This study can serve as a foundation for future investigations into student research readiness. The proposed intervention program and identified challenges can guide similar research or help develop new strategies to support student researchers in other contexts.

Scope and Delimitation of the Study

This study focuses solely on third-year undergraduate students at Eastern Samar State University – Guiuan Campus. It evaluates their competencies in the technical aspects of research writing and their ability to effectively write the major sections of a research paper, including the introduction, methodology, results and discussion, conclusion and recommendation, references, and abstract.

The study also examines the challenges students face in conducting research and investigates the relationship between their readiness and these difficulties. Based on the gathered data, an appropriate intervention program will be proposed.

The scope is limited to students from the Guiuan Campus only. It does not include students from other campuses or institutions. The primary method of data collection is through survey questionnaires; interviews and evaluation of actual student outputs are not included. The study relies on self-reported data and does not take into account external factors such as socio-economic background. The findings are specific to the defined population and the time frame of the study.

Definition of Terms

Research Readiness

The degree to which a student is prepared to engage in academic research, including the necessary knowledge, skills, and mindset. In this study, it refers to the students' competencies in technical writing, structuring a research paper, and applying appropriate research methods.

Technical Aspect in Research Writing

This refers to the formal and mechanical components of writing a research paper, such as grammar, formatting, citation styles, and adherence to academic standards.

Major Parts of a Research Paper

The key components that make up a standard research paper: introduction, methodology, results and discussion, conclusion and recommendation, references, and abstract. This study assesses students' abilities to develop each section effectively.

Possible Challenges in Conducting Research

Obstacles encountered by students during the research process. These may include limited access to resources, difficulties with research design or data analysis, and struggles with writing academically.

Intervention Program

A set of planned strategies or activities designed to address specific gaps or challenges. In this context, the program will be tailored to improve students' research skills and overall readiness, based on the findings of the study.

REVIEW OF RELATED LITERATURE

This section presents a thematic review of relevant literature related to the key variables of the study. It also outlines the theoretical framework and hypothesis to give readers a clearer understanding of the research direction.

Students' Readiness in Conducting Research

Research readiness plays a vital role in student success, especially in higher education, where independent research is key to academic and career growth.

Asio (2023) found that accounting students with strong skills in writing core research sections—especially results and discussion—were more prepared to conduct research. Similarly, Bedu-Addo et al. (2022) emphasized that having subject matter expertise is essential to research and career readiness.

Meanwhile, Nizeyimana, Joseph, and Louw (2023) noted that rehabilitation students lacked practical experience and decision-making skills necessary for applying research in real-life clinical settings. Their study pointed out the need for hands-on training within research programs to close this gap.

Technical Challenges in Research Writing

Many students struggle with the technical side of writing a research paper—structuring content, using correct citation formats, and presenting data clearly.

Asio (2023) highlighted that students often find the methodology and discussion sections especially challenging. Alhubaishy (2020) added that computing students had difficulty grasping research concepts in online settings due to a lack of writing support.

Similarly, Ghazali (2022) noted that many students in online learning environments lacked the digital skills needed to follow lectures and complete research tasks effectively. Poor internet connectivity further compounded the issue. The study recommended improving teaching methods and offering targeted technical support.

Challenges in Conducting Research

Students face a range of personal and institutional barriers that can impact their ability to conduct research.

Moosavi (2020) identified financial issues, low participant response rates, and lack of supervisor support as major obstacles for PhD students in Iran. These issues significantly delayed data collection and affected research quality.

Likewise, Nizeyimana et al. (2023) found that rehabilitation students struggled with using telerehabilitation tools in research due to limited training and low confidence. This highlights the need to integrate digital and technological skills into research programs.

Alhubaishy (2020) also pointed out that students often lacked guidance, leading to poor understanding of complex research topics. The study suggested that institutions offer structured mentorship to help students overcome these hurdles.

Interventions to Enhance Research Readiness

To address these challenges, several researchers have recommended practical interventions. Asio (2023) proposed writing workshops focused on teaching students how to write results and discussion sections effectively. These sessions would build students' confidence and improve their research writing skills.

Nizeyimana et al. (2023) suggested adding telerehabilitation training into clinical programs to prepare students for real-world research. Meanwhile, Ghazali (2022) emphasized improving teaching strategies and learning materials, especially in online settings. He also recommended digital literacy training to better equip students for research in modern academic environments.

Theoretical Framework

This study is anchored on Cognitive Load Theory (CLT), which explains how limited mental resources can impact learning. Research tasks—like forming research questions, evaluating sources, and analyzing data—can be mentally demanding, especially for beginners (Reio, 2021). When students face too many demands at once, their ability to perform well in research declines.

Additionally, the Theory of Reasoned Action is relevant. It suggests that a person’s behavior is shaped by their intention, which is influenced by personal attitudes and perceived expectations. In this study’s context, students’ readiness to conduct research depends not only on their skills but also on how they view research and what they believe others expect of them.

Together, these theories offer insight into what drives or hinders students’ research readiness, guiding both the analysis and the development of meaningful interventions.

Conceptual Framework

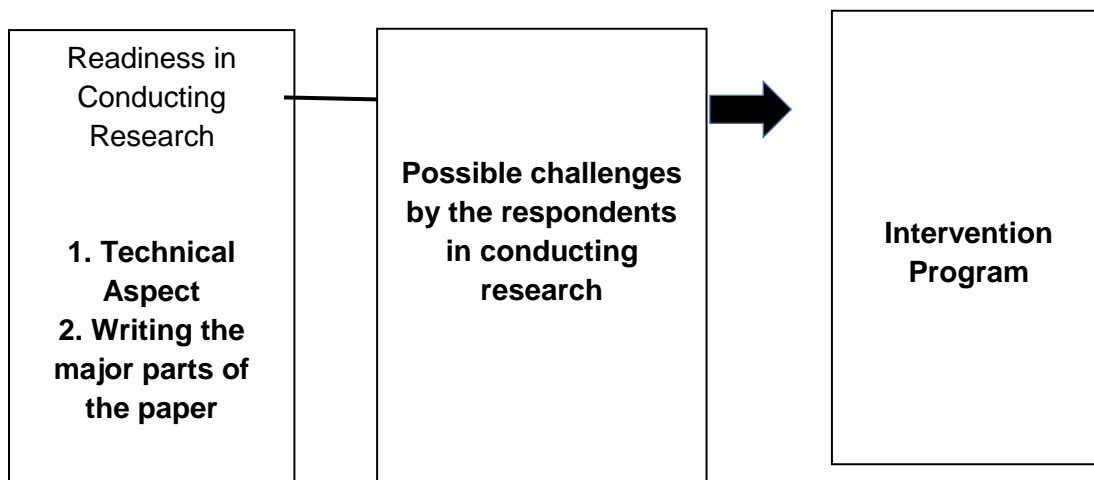


Figure 1: For study 2, the paradigm shows the relationship between the variables in the study

METHODOLOGY

This chapter presents the research design, research locale, respondents of the study, research instrument, data gathering procedure, data analysis, measurement of variables.

Research Design

This study employed a descriptive-correlational research method. A descriptive-correlational research method is a combination of descriptive and correlational research approaches, aimed at

gathering detailed information about variables and examining the relationships between them. Descriptive research is a type of research which collects information that describes existing phenomena as they are, such as the readiness of conducting research among students (Creswell, 2014). On the other hand, correlational research helps in determining whether, and to what degree, a relationship exists between the variables being studied, but it does not imply causations (Fraenkel, Wallen, & Hyun, 2018). By employing a descriptive-correlational research method, researchers can provide comprehensive descriptions of phenomena and simultaneously investigate potential relationships between students' demographic profile and level of attitude in conducting research.

Research Locale

This study will be conducted at Eastern Samar State University – Guiuan Campus, located in Guiuan, Eastern Samar, Philippines. Established in 1962, the Guiuan Campus is part of the broader Eastern Samar State University (ESSU) system, which has multiple campuses across the province. The university plays a key role in providing quality higher education to the region, particularly in the fields of education, agriculture, engineering, and technology.

Respondents of the Study

The respondents of the study are the third year college students who are officially enrolled at Eastern Samar State University – Guiuan Campus for the Academic Year 2024-2025. Out of the 1,327 total population, a total of 307 respondents were identified using the simple random sampling.

Table 1. Distribution of Respondents among the Third Year Students of Eastern Samar State University-Guiuan Campus.

College/Department		
	Total Population	Sample
College of Technology	326	75
College of Engineering	108	24
College of Education	96	22
College of Business Management and Accountancy	190	45
College of Hospitality Management	337	78
College of Arts and Sciences	35	9
College of Criminal Justice	99	23

Education		
College of Computer Studies	136	31
TOTAL	1,327	307

Sampling Technique

The researchers used simple random sampling technique in determining the number of respondents. This method ensures that every possible sample of a given size has the same probability of being chosen, leading to unbiased and representative samples. It involves selecting individuals randomly from a larger population, often using random number generators or drawing lots (Creswell, 2014; Fraenkel, Wallen, & Hyun, 2018). Proportional distribution of respondents was used in getting the sample size of the respondents from its total population.

Research Instrument

The researcher used a adopted survey questionnaire from the study of Bucar (2022) on research readiness. The first part of the questionnaire talks about the technical aspect in research writing, the second part talks about on writing the major parts of the research paper, and the third part talks about the possible challenges that will encounter in conducting research.

Data Gathering Procedure

To obtain the data needed for the study, the researcher wrote a letter to the Campus Administrator requesting authorization to conduct the study. Upon Administrator approval, the researcher produced copies of the instruments and administer the same to the respondents. Retrieval was done right after the questionnaire was completed.

Data Analysis

All data that were generated from the survey were tallied, tabulated, coded, and analyzed using Statistical Packages for the Social Sciences (SPSS). This is a program that organizes data, conducts 30 statistical analyses, and generates tables and graphs that summarize data. Descriptive and inferential statistics will be used, including correlation analysis of the different variables. Mean, percentage, and frequency counts will be applied in determining the level of each factor that is under the scope of investigation.

Measurement of Variables

The following variables will be used in the Study 1 and will be measured for easier manipulation and understanding.

Factors. The factors affecting students' attitude in conducting research such as the research orientation, reward and influence, personal interest, research use, and research anxiety will be categorized using the following scale and description:

<u>Code</u>	<u>Range</u>	<u>Description</u>	<u>Interpretation</u>
1	1.00-1.80	Strongly Disagree	Not Ready
2	1.81-2.60	Disagree	Somewhat Ready
3	2.61-3.40	Neutral	Ready
4	3.41-4.20	Agree	Moderately Ready
5	4.21-5.00	Strongly Agree	Extremely Ready

Chapter IV

RESULTS AND DISCUSSION

This chapter presents the analysis and interpretation of the data based on the gathered information from the respondents.

Table 2. Technical Aspect in Research Writing

Items	Mean	Description	Interpretation
1. Conceptualize/design research related to daily life.	3.47	Agree	Moderately Ready
2. Write an appropriate research title.	3.58	Agree	Moderately Ready
3. Format a research paper based on institutional convention (e.g., pagination, numbering, spacing, indention, table and figure headings)	3.81	Agree	Moderately Ready
4. Observe appropriate writing style, grammar, and word selection.	3.79	Agree	Moderately Ready
5. Organize coherent paragraphs with scholarly citations.	3.66	Agree	Moderately Ready
6. Apply proper paraphrasing techniques for borrowed ideas.	3.77	Agree	Moderately Ready
7. Apply communication skills in the conduct of research, data gathering, interviews, etc.	3.79	Agree	Moderately Ready
Overall Mean	3.69	Agree	Moderately Ready

Legend: 4.21-5.00 – *Extremely Ready*; 3.41-4.20 – *Moderately Ready*; 2.61-3.40 – *Ready*; 1.81-2.60 – *Somewhat Ready*; 1.00-1.80 – *Not Ready*.

Table 2 presented the technical aspect in research writing. The mean score 3.47 obtained in the item “Conceptualize/design research relating to everyday life” which interpreted as “Moderately Ready” indicates that students will face difficulties in starting the research process especially in identifying and designing research title which relates to practical daily life. According to Asio (2023), it is essential to conceptualize research to conduct a relevant research project as it sets the stage for meaningful inquiry. A lower score means that students are probably not confident or skilled at the start of the research process which will lead them to trouble in precisely definition of research questions and objectives. There is a need for more training to identify research issues and relate them to real-world problems. To address this problem, I suggest conducting training and workshops on the research design for students to improve the quality of the research process and achieve good results. As per the maximum value (3.81), “Format a research paper based on institutional convention” is what makes the students, relatively, more ready. This means, the students have more knowledge about adhering to technical etiquette like pagination, spacing, numbering and figure/table headings etc. This suggests that students have learned the mechanical aspect of writing the research paper. This may further indicate that students get more exposure to these skills through assignments and feedback mechanism in institutions. According to Bachtiar (2022), one’s ability to format the work as per the conventions goes a long way in ensuring professionalism in content and clarity. A score that is relatively high means that students are stronger at this technical skill. Still, it must be noted that formatting is an important skill but it doesn’t add to the intellectual rigour of research. Perhaps, that is why this is an area of strength as students may struggle with designing research. On the whole, students were moderately ready (mean of 3.69 score) to perform the technical aspects of research writing. Overall, this level of preparedness is okay but there is a need for improvement to prepare students for research. The moderate readiness across different technical aspects suggests that students have already established a basic foundation, but they still require more targeted interventions to address certain specific weaknesses, like conceptualizing research and communicating during data gathering or interview. Ghazali (2022) suggests that learners with only moderate readiness would require further support to elevate their level of readiness. This support may come in the form of peer mentoring or extensive feedback that refines their skills.

Table 3. Writing the Major Parts

Items	Mean	Description	Interpretation
Introduction			
1. Write a clear introduction following the inverted pyramid format (i.e., global to local perspective).	3.55	Agree	Moderately Ready
2. Establish the relevance and social value of the study and its differences from other previous studies.	3.61	Agree	Moderately Ready
3. Formulate a comprehensive theoretical/conceptual framework.	3.60	Agree	Moderately Ready
4. State the justification/compelling reasons for conducting the research.	3.66	Agree	Moderately Ready

5. Formulate clearly the statement of the research problem.	3.72	Agree	Moderately Ready
6. Formulate hypothesis (for quantitative and mixed-method research).	3.65	Agree	Moderately Ready
7. Write a coherent, relevant and comprehensive literature review of the phenomenon/variable being studied with global, regional, and local situational analysis of the problem supported by the literature from different continents and regions of the study.	3.50	Agree	Moderately Ready
8. Cite sources using standard style (APA, MLA, or Chicago Manual of Style) appropriate to one's area of discipline.	3.72	Agree	Moderately Ready
9. Synthesize information from relevant literature.	3.63	Agree	Moderately Ready
10. Establish a gap in the literature from the literature reviews that the study intends to find.	3.59	Agree	Moderately Ready
11. Follow ethical standards in writing related literature.	3.71	Agree	Moderately Ready
Methodology			
1. Choose appropriate research design (e.g., qualitative, quantitative, or mixed methods).	3.88	Agree	Moderately Ready
2. Describe the sampling procedure and sample.	3.70	Agree	Moderately Ready
3. Plan data collection and analysis procedures.	3.73	Agree	Moderately Ready
4. Construct an instrument and establish its validity and reliability	3.64	Agree	Moderately Ready
5. Select (i.e., adapt or adopt) an appropriate instrument to measure the variables (for quantitative research) being studied.	3.76	Agree	Moderately Ready
6. Collect data through observation, locus group discussion (FGD), interviews, etc.	3.86	Agree	Moderately Ready
7. Collect data using a suitable technique instrument.	3.79	Agree	Moderately Ready
8. Apply data entry (coding and	3.62	Agree	Moderately Ready

cleaning).			
9. Use statistical techniques in analyzing the data.	3.58	Agree	Moderately Ready
10. Analyze qualitative data through thematic analysis (open coding, axial coding, and clustering of themes).	3.53	Agree	Moderately Ready
11. Evaluate the qualitative research reports trustworthiness through member check, triangulation, saturation, peer review. External audit, and other valid means).	3.59	Agree	Moderately Ready
12. Articulate and follow the ethical procedures in conducting research (CB-asking the respondents to sign an informed consent before conducting the study).	3.63	Agree	Moderately Ready
Results and Discussion			
1. Infer and explain patterns from data.	3.51	Agree	Moderately Ready
2. Present the findings in a clear and unambiguous manner.	3.60	Agree	Moderately Ready
3. Relate the findings with pertinent literature.	3.53	Agree	Moderately Ready
4. Validate the theory from the results.	3.60	Agree	Moderately Ready
5. Generate a new theory for grounded theory research.	3.45	Agree	Moderately Ready
6. Synthesize results of the findings.	3.54	Agree	Moderately Ready
Conclusion and Recommendation			
1. Draw conclusions from patterns and themes (for qualitative research).	3.54	Agree	Moderately Ready
2. Present conclusions that reflect the objectives and results (e.g. validation of theory used or generation of a new one).	3.60	Agree	Moderately Ready
3. Formulate recommendations based on the salient findings.	3.54	Agree	Moderately Ready

References			
1. List the cited sources in the reference list with traceable URL or DOL.	3.74	Agree	Moderately Ready
2. Select reputable references, which are internationally refereed and indexed.	3.73	Agree	Moderately Ready
3. Utilize sources which were published preferably in the year 2010 onwards.	3.74	Agree	Moderately Ready
Abstract			
1. Write an accurate synopsis of the paper.	3.58	Agree	Moderately Ready
2. State clearly the research focus.	3.71	Agree	Moderately Ready
3. Summarize the research methods used.	3.72	Agree	Moderately Ready
4. Outline the results and discussions of the study.	3.68	Agree	Moderately Ready
5. Summarize conclusion and recommendation of the study.	3.69	Agree	Moderately Ready
Overall Mean	3.64	Agree	Moderately Ready

Legend: 4.21-5.00 – *Extremely Ready*; 3.41-4.20 – *Moderately Ready*; 2.61-3.40 – *Ready*; 1.81-2.60 – *Somewhat Ready*; 1.00-1.80 – *Not Ready*.

Table 3 presented the major parts of the research paper. The highest mean score of 3.72 was attributed to the “Formulate clearly the statement of the research problem” in the Introduction, which implies that the students are affirmed to present clearly the issue that will be researched upon. The research problem is very important in research, explains Asio (2023). Because of that, a good research problem will keep the research on track. In contrast, the lowest mean score of 3.55 concerns the quality of writing a clear introduction using the inverted pyramid style. This means students may need more time to be able to organize their introduction logically, from broad to specific about the study. Thus, organizing logically is essential to state the focus of the study. If students will improve on how to structure their introduction properly, they can give a better background to their research. As per the Methodology section, the highest mean score of 3.88 is for “Choose appropriate research design (e.g., qualitative, quantitative or mixed methods)”. This shows that students are reasonably confident in choosing suitable research designs for their studied topic. Students are aware that choosing the approach is one of the foundation steps in a research process. Ghazali (2022) adds that selecting a suitable design is critical as the whole success of the research projects depends on it. Nevertheless, the lowest score 3.53 in “Analyze qualitative data through thematic analysis” implies an added training for students specifically for this technique and qualitative analysis in general. Since thematic analysis is essential for qualitative analysis, addressing it through workshops or mentoring can improve the data analysis skills of students and subsequently enhance their research rigor. According to survey results, the lowest score of 3.45 in the Results and Discussion section have to do with “Generate a new theory for grounded theory research”. This shows that students may have difficulty with theory generation, which is a more advanced and abstract kind of skill in research.

According to Moosavi (2020), to be able to generate a theory, you will need to identify relationships and patterns from the collected data. However, not all students may as yet possess this capability. The highest mark in this section, 3.60, was “Present the ... unambiguously”. This means students are quite capable of presenting their findings which is a key skill to ensure clarity in research findings. The top score under the conclusion and recommendation, with a score of 3.60, is “Present conclusions that are in line with the objectives and the results”. It indicates that students are capable of drawing conclusions from their research. It is an important skill to present conclusions that give a logical end to the study as per Bachtiar (2022). The lowest score of 3.54 is on both "Draw conclusions based on patterns and themes" and "Make recommendations based on most significant findings." This means that the students are still lacking in this matter. The highest score in the References section is on “List the cited sources in the reference list with traceable URL or DOI” and “Utilize sources which were published preferably in the year 2010 onwards” with a score of 3.74. It indicates that students are capable of following citation standards. But, the lowest score of 3.73 "Select reputable references, which are internationally refereed and indexed" implies students may require further assistance in sourcing credible materials for research which is essential to ensure the authenticity of their work. The abstract section of the research presents what the researcher plans to write in the future. The data shows that there is a consistent performance by students. This can help in evaluating their precise methods. The finding that students aren't able to adequately condense their entire research inside a paper in a brief and systematic abstract is suggested from the low score of 3.58 in “Write an accurate synopsis of the paper”. According to Ghazali (2022), the most important elements of a study can be communicated through a clear and concise abstract, so students may need more exposure to writing them. The average score of 3.64 for Writing the Major Parts is interpreted as “Moderately Ready.” This means that students have some understanding of how to write and compose the major parts of the research paper but there are many areas where they need to improve. Further, they need considerable improvement to accomplish advanced tasks like generating theories, qualitative data analysis, and formulating actionable recommendations. According to Asio (2023), enhancing students’ ability through intervention will help elevate their capability of being ready to do good research of high quality.

Table 4. Possible Challenges in Conducting Research

Items	Mean	Description	Interpretation
1. Lack of time due to class interruptions.	3.43	Agree	Moderately Ready
2. Lack of interest in conducting research.	3.35	Neutral	Ready
3. Financial constraint/lack of financial support to conduct research.	3.67	Agree	Moderately Ready
4. Lack of background knowledge on how to conduct research.	3.43	Agree	Moderately Ready
5. Low English language proficiency level.	3.40	Agree	Moderately Ready

6. Poor paraphrasing and summarizing skills which leads to plagiarism.	3.37	Neutral	Ready
7. Poor computer and internet proficiency level.	3.21	Neutral	Ready
8. Inadequate knowledge and skills in finding sources for literature.	3.41	Agree	Moderately Ready
9. Inadequate knowledge of the statistical treatment of data or what statistical tool to use.	3.39	Neutral	Ready
10. Little knowledge about sampling procedure and pre-testing dry/run.	3.39	Neutral	Ready
11. Limited knowledge of the different types of research.	3.43	Agree	Moderately Ready
12. Less experience and exposure in conducting different types of research (qualitative, quantitative, and mixed-method).	3.39	Neutral	Ready
Overall Mean	3.41	Neutral	Ready

Legend: 4.21-5.00 – *Extremely Ready*; 3.41-4.20 – *Moderately Ready*; 2.61-3.40 – *Ready*; 1.81-2.60 – *Somewhat Ready*; 1.00-1.80 – *Not Ready*.

Table 4 showed the potential problems in doing research. The mean score with the lowest value of 3.21 is for the statement “Poor computer and internet proficiency level”. It suggests that students can’t use. This problem is highly pertinent in today’s world where research involves using online data collection, analysis tools and remote collaboration. Ghazali (2022) believes that limited digital literacy could lead to inefficient and erroneous use of modern research tools by students for data collection and analysis. It is clear that institutions need to provide students the training in digital literacy so that they do not face such issues. The statement with the greatest score which is 3.67 is the “financial constraint/lack of financial support to conduct research”. In other words, the students consider the limitation of finance as a challenge. According to Moosavi (2020), one of the barriers in the research process is financial barrier. Financial barriers restrict access to research tools, participants, or materials. This means that without financial means may negatively affect students completion of research study. The students overall mean score of 3.41 which is interpreted as

“Ready” indicates that the students are generally ready to conduct research, but it may be facing challenges to conduct a research that might not allow them to do it effectively. Even though the students demonstrate “Readiness” to conduct research based on the overall mean, the presence of barriers in terms of financial and technological aspects suggests that this readiness could be enhanced significantly by the institution. Offering financial support and technical workshops might lessen these challenges, allowing students to conduct their research more efficiently. Asio (2023) says that dealing with both financial and technical challenges would make students capable of doing more research that is essential for their academic and professional career.

Relationship between the Variables Measured. The table below shoes the result on the relationship between the variables measured in the study.

Level of Readiness	Possible Challenges	Correlation Coefficient r	Interpretation	p-value	Interpretation
Technical Writing		0.444	Moderate Correlation	0.001	Significant

Table 5 referenced the connection between the state of readiness in technical writing and the potential challenges students may face when conducting research. Since the value of correlation coefficient (r) is 0.444, it showed a quite moderate correlation. So when the challenges increase then the technical writing readiness of the students decrease or face setback, and vice versa. P-Value of .001 means this correlation is significantly correlated. Thus, the challenges students face have a great impact on their readiness in technical writing and vice versa. Finding of the moderate and significant correlation between challenges and research readiness is consistent with other studies. For example, Asio (2023) asserts that challenges like financial difficulty, lack of access to research resources, and limited assistance from the faculty harm the students’ ability to gain good proficiency in technical writing. This corresponds to the claim made by Moosavi (2020), which states that the higher the level of dilemmas faced by students, the less confident and capable they are of executing some major operations, including writing. Writing, which refers to the activity of writing a logical research paper according to the format and page numbering with citations, can be made more difficult. Educators and institutions must take note of this finding. Since the possible challenges were found to have a moderate correlation with students’ readiness in technical writing, one will need to overcome them to improve overall research performance. Financial backing, access to resources, and further instruction in both writing and research can lessen the impact of these problems, according to Asio, 2023. There is a need to adopt strategies that reduce challenges and improve readiness in research to produce better results. Moreover, acknowledging the importance of these challenges should motivate the institution to craft more focused programs that target specific barriers to research readiness, especially in technical writing.

Relationship between the Variables Measured. The table below shoes the result on the relationship between the variables measured in the study.

Level of Readiness	Possible Challenges	Correlation Coefficient r	Interpretation	p-value	Interpretation
Writing Major Parts		0.543	Moderate Correlation	0.001	Significant

Table 6 displays the relationship between the students’ level of readiness in writing the major parts of a research paper and the possible challenges the students may encounter in conducting research. Correlation coefficient (r) was 0.543 which means there is moderate correlation between level of readiness in writing the major parts and the possible challenges. This means that with increase in challenges the readiness of the students to write the major parts of research paper goes on decreasing, similarly lesser challenges increase their readiness. The p-value is equal to 0.001. Therefore, relationship is highly significant. Challenges students face significantly affect their readiness to write the important parts of a research paper. The correlation is moderate (r = 0.543) which means students’ readiness to write the essential parts of a research paper includes the introduction, methodology, results, discussion, and conclusion. The possible challenges may face by students are significantly desirable of the major sections. The occurrence of challenges students conversely impacts their competence to produce these major sections, which result in poorly developed or disorganized research papers. The work of Rutherford and Kerr (2018) indicates that the student will not be able to competently draft any of the major sections of the research paper when their possible challenges such as access to the right resources, mentorship, insufficient time, and others overwhelm them. Evidence from the data indicates that when learners faced pressures from these challenges, their academic output, in this case, writing the important sections of their research, suffered. Along with this, Bailey and Clifton (2020) stress that support from mentoring and academics can help students overcome challenges with writing and improve their academic writing-related skills. This aligns with the data suggesting that students facing lesser or getting enough support were better placed to deal with the complexity of writing the major sections of their research. When obstacles are reduced, students face greater intellectual demands, thus producing research looking more methodological, coherent and better-presented with regards to findings through academic writing of major sections. A moderate correlation shows that challenges do not determine readiness per se but considerably contribute to it. Other factors such as previous exposure to researching, internal motivation, and the academic resources at hand, may also impact students’ readiness. According to Gibbs and Simpson (2019), there is a need for an integrated approach to academic readiness that touches on internal factors (self-efficacy, research knowledge) and barriers (financial support, digital literacy) to enhance students’ competence in writing key research sections. So, while obstacles are important, they are just one of numerous things that affect students’ readiness or preparedness. The strong and moderate correlation between probable challenges faced by students and their

preparedness to write the major sections of a research article has significant ramifications for educational institutions. In other words, it emphasizes the need for measures to minimize or eradicate the challenges faced by students, especially those on academic costs, academic access, and digital literacy. Colleges and universities may provide financial aid programs, better access to research databases and academic writing resources, and digital literacy training to help students overcome these hurdles. The results show that mentorship and academic support services can be expanded. Students can navigate and write research papers better if they have experienced mentorship to guide them along the research process. Schools should set up mentorship opportunities to connect the students with faculty for guidance on research design, data analysis and writing. Finally, the moderate correlation shows that while dealing with the possible challenges is important, the universities must also fill up students' innate preparedness through increasing students' research skills using structured workshops and seminars. This would mean that even while they probably face challenges, they have the knowledge and skills to create good work.

Proposed Intervention Program of the Study

From the conclusion of the study, which shows that Eastern Samar State University – Guiuan Campus students are “Moderately Ready” to research but would face possible challenges in technical writing, theory generation, and qualitative research data analysis, an intervention program is offered. The intervention program aims to enhance the technical as well as conceptual aspect of research, help students write the major parts of the research paper and minimize students' challenges that hinder them to perform.

Intervention Component	Program	Objective	Activities	Expected Outcome	Timeline	Responsible Entity
<p>1. Research Conceptualization and Problem Formulation Workshop</p>	<p>To enhance students' ability to conceptualize research problems and align them with real-world issues.</p>	<p>Conduct workshops focused on identifying research problems, formulating research questions, and designing research objectives. Use case studies and practical exercises to reinforce learning.</p>	<p>Students will improve in conceptualizing relevant research topics and constructing well-defined research problems.</p>	<p>1 week, at the beginning of the semester</p>	<p>Research Faculty, Department Heads</p>	

<p>2. Technical Writing and Formatting Seminar</p>	<p>To improve technical aspects of students' research writing, such as proficiency in the proper formatting (APA, technical aspects MLA), pagination, and research citation. Conduct peer writing, including review sessions to formatting and provide real-time citation. feedback on students' work.</p>	<p>Provide seminars on the Enhanced technical writing skills, especially in formatting and citing scholarly sources. 2 sessions per semester</p>	<p>Research Instructors, Librarians</p>
<p>3. Digital Literacy and Statistical Software Training</p>	<p>To address the low proficiency using in computer and software (SPSS, R), internet use, and online improve students' ability to analyze data.</p>	<p>Organize hands-on training sessions on statistical software (SPSS, R), research databases, and collaborative platforms like Google Scholar and Zotero. Increased competence in using digital tools for data analysis and research. 3 workshops throughout the semester</p>	<p>IT Department, Research Faculty</p>
<p>4. Financial Support for Research Program</p>	<p>To alleviate the financial constraints students face in conducting research.</p>	<p>Develop a grant system or financial aid program where students can apply for funding for research materials, participant recruitment, and other project needs. Reduced financial burden, allowing students to focus on conducting high-quality research.</p>	<p>University Ongoing Administration, External Donors</p>
<p>5. Mentorship Program</p>	<p>To provide students with guidance from experienced researchers throughout the research process.</p>	<p>Establish a mentorship program pairing students with experienced faculty members or graduate students who can guide them through the stages of research design, data analysis, and writing. Improved students' readiness and competence in conducting writing research due to personalized guidance.</p>	<p>Begin at the start of the semester and continue throughout Research Faculty, Graduate Students</p>
<p>6. Research</p>	<p>To ensure students ethics, covering</p>	<p>Host seminars on research topics such as awareness and</p>	<p>Increased awareness and per 1 seminar Ethics Committee,</p>

Ethics Training	<p>understand and as plagiarism, informed adherence to semester Legal adhere to ethical consent, and data privacy. ethical research Department standards in Use real-world examples to practices. research. illustrate ethical dilemmas and their solutions.</p>	
7. Advanced Data Analysis Workshop	<p>To enhance students' skills in qualitative and quantitative data analysis, particularly thematic analysis.</p>	<p>Conduct advanced workshops on qualitative and quantitative Better analytical analysis methods, including skills in 1 thematic analysis and grounded qualitative workshop theory. Provide hands-on research, leading per opportunities for students to to more robust semester practice coding and clustering research findings. themes.</p>

Conclusions

The study focused on the preparedness of the 3rd year Eastern Samar State University – Guiuan Campus students in terms of research and their skills in doing the important parts of a research paper and technical writing. The finding showed that though students are overall moderate ready, they vary in abilities. The students were good at formatting their papers and making selection of research designs for their studies. However, they found it difficult to perform more complicated tasks of identifying real-world research problems, developing new theories and the like; especially as regards grounded theory research. Students faced a lot of challenges due to finances which made access difficult for research materials and tools. One of the hurdle was digital literacy especially use of computer and net based research. There was a moderate relationship that was observed between the challenges faced by students and their research readiness. It indicates that the more the challenges, the lesser will be their research readiness. Given these findings, it is clear that universities need to intervene to help reduce these issues.

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