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An Assessment of Student-Researcher Satisfaction with the Use of Artificial Intelligence in Thesis Writing

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ABSTRACT

The rapid advancement of artificial intelligence (AI) and its increasing integration into academic workflows necessitate a deeper understanding of its impact on student learning and experience. This research explores the use of AI tools in undergraduate thesis writing, focusing on student satisfaction and the factors influencing student perceptions. By examining the experiences of 121 students (83 BSIT, 38 BTVTEd) at Sultan Kudarat State University, this research contributes to the growing body of knowledge on AI's role in higher education. Overall satisfaction with AI tools was generally high. However, a more nuanced analysis revealed no significant differences between BSIT and BTVTEd students across various satisfaction measures (overall satisfaction, ease of use, enjoyable experience), as indicated by Mann-Whitney U tests. Lower ratings for reliability, interface, and validity/plagiarism, however, suggest areas for tool improvement, despite high ratings for usability, functionality, features, and performance. A linear regression analysis, exploring the correlation between satisfaction and thesis outcomes, yielded a low R-squared (0.0512), indicating limited explanatory power. Surprisingly, a significant negative correlation emerged between thesis organization and overall satisfaction, warranting further investigation. Other thesis outcome measures showed no significant relationship with satisfaction. These findings highlight the need for further research to identify additional factors influencing satisfaction and to explore the unexpected negative correlation, potentially through qualitative methods. This research contributes valuable insights into student experiences with AI in thesis writing, informing future tool development and pedagogical approaches.

Keywords: AI in education, student satisfaction, thesis writing, AI tool usability, and undergraduate research.

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INTRODUCTION

Artificial Intelligence (AI) is a digital tool capable of performing tasks resembling human capabilities (Sheikh et al., 2023). Its rapid advancement, particularly within educational research, has sparked considerable interest and debate among researchers, educators, policymakers, and stakeholders regarding its integration into educational settings. The potential impact of AI on student learning outcomes, especially in academic writing—a globally recognized challenge in higher education—has garnered significant attention. While AI-powered tools offer potential solutions to alleviate academic writing difficulties, research on their use in postgraduate and undergraduate settings remains limited, leaving a gap in understanding student perceptions (Kurniati & Fithriani, 2022; Kumar & Raman, 2022). For example, while studies like Kurniati & Fithriani (2022) show positive student responses to AI writing tools like Quillbot, a broader understanding of student experiences, particularly in the context of thesis writing, is needed. Furthermore, the responsible use of AI in academia is increasingly emphasized, as evidenced by recent guidelines released by the University of the Philippines (CNN, 2023), highlighting the need for further research into student perceptions and effective implementation strategies.

This study addresses this gap by assessing student satisfaction with AI tools in thesis writing. The integration of AI into various academic disciplines is rapidly transforming how research is conducted and disseminated. The field of thesis writing, traditionally a demanding and time-consuming process, is no exception. AI-powered tools, offering capabilities ranging from grammar and style checking to literature review assistance and data analysis, are increasingly accessible to student-researchers. However, the impact of these tools on the overall experience and satisfaction of students remains a relatively unexplored area. This study aims to address this gap by assessing the level of satisfaction experienced by

student-researchers specifically among the fourth-year BSIT and third year BTVTEd students of Sultan Kudarat State University who have completed courses in TR1 (Technology Research 1) and TR2 (Technology Research 2), and ProfTVEd1 and 2 (Technology Research 1 and 2, encompassing undergraduate thesis/research paper/research projects). This study will utilize a Likert scale, specifically a seven-point scale, to measure student perceptions, leveraging its established effectiveness in educational research (Kusmaryono et al., 2022).

This assessment is particularly pertinent given the potential benefits and challenges associated with AI adoption in academic settings. While AI tools can potentially enhance efficiency, improve writing quality, and facilitate data analysis, concerns exist regarding over-reliance, ethical implications, and the potential for bias in AI-generated content. Understanding student-researchers' perspectives on these aspects is crucial for optimizing the integration of AI into the academic workflow and ensuring a positive and productive learning experience for this specific cohort of students. A comprehensive understanding of student satisfaction will inform the development of better support systems and training programs, ultimately maximizing the benefits of AI while mitigating potential drawbacks within the context of their thesis writing.

The current research landscape lacks a comprehensive understanding of student-researchers' experiences with AI in thesis writing, particularly within the specific context of the BSIT and BTVTEd programs at Sultan Kudarat State University. Existing studies may focus on specific AI tools or narrow aspects of the writing process, leaving a need for a broader, more holistic assessment targeted at this specific population. This study seeks to fill this gap by employing a mixed-methods approach, gathering both quantitative and qualitative data to provide a rich and nuanced understanding of student satisfaction among these students who have undergone formal thesis writing training through TR1, TR2, ProfTVEd1 and ProfTVEd2.

Ultimately, the findings of this study will contribute valuable insights for educators, researchers, and developers of AI tools, specifically within the context of technology-focused undergraduate programs. By understanding the factors influencing student satisfaction among these BSIT and BTVTEd students at Sultan Kudarat State University, we can improve the design and implementation of AI-powered tools tailored to the specific needs and challenges of thesis writing within their curriculum. This research will contribute to a more informed and effective integration of AI in academic settings, fostering a positive and productive learning environment for future generations of student-researchers in these programs.

RESEARCH QUESTIONS

Generally, this study aimed to assess the overall level of satisfaction among student-researchers using artificial intelligence in their thesis writing.

Specifically, it aimed to answer the following questions:

1. What was the overall level of satisfaction among fourth-year BSIT and third year BTVTEd students at Sultan Kudarat State University regarding their use of AI tools in their thesis writing in terms of:

1.1 overall satisfaction,
1.2 ease of use,
1.3 Enjoyable experience?

2. What factors significantly influenced the satisfaction levels of fourth-year BSIT and third year BTVTEd students in terms of:

2.1. usability,
2.2. interface,
2.3. functionality,
2.4. features,
2.5. reliability,
2.6. performance
2.7. validity and plagiarism?

3. Is there a significant correlation between the satisfaction levels of fourth-year BSIT and third year BTVTEd students at Sultan Kudarat State University and the quality/efficiency of their thesis projects when using AI tools in their thesis writing in terms of

3.1. Over all thesis quality,
3.2. Thesis clarity and organization,
3.3. Time saved,
3.4. Efficiency of research process,
3.5. Panelists/Supervisor's Assessment?

Conceptual Framework

This study examines the factors influencing student-researcher satisfaction with AI tools used in thesis writing. The framework posits that student satisfaction (the dependent variable) is influenced by a set of independent variables categorized as follows:

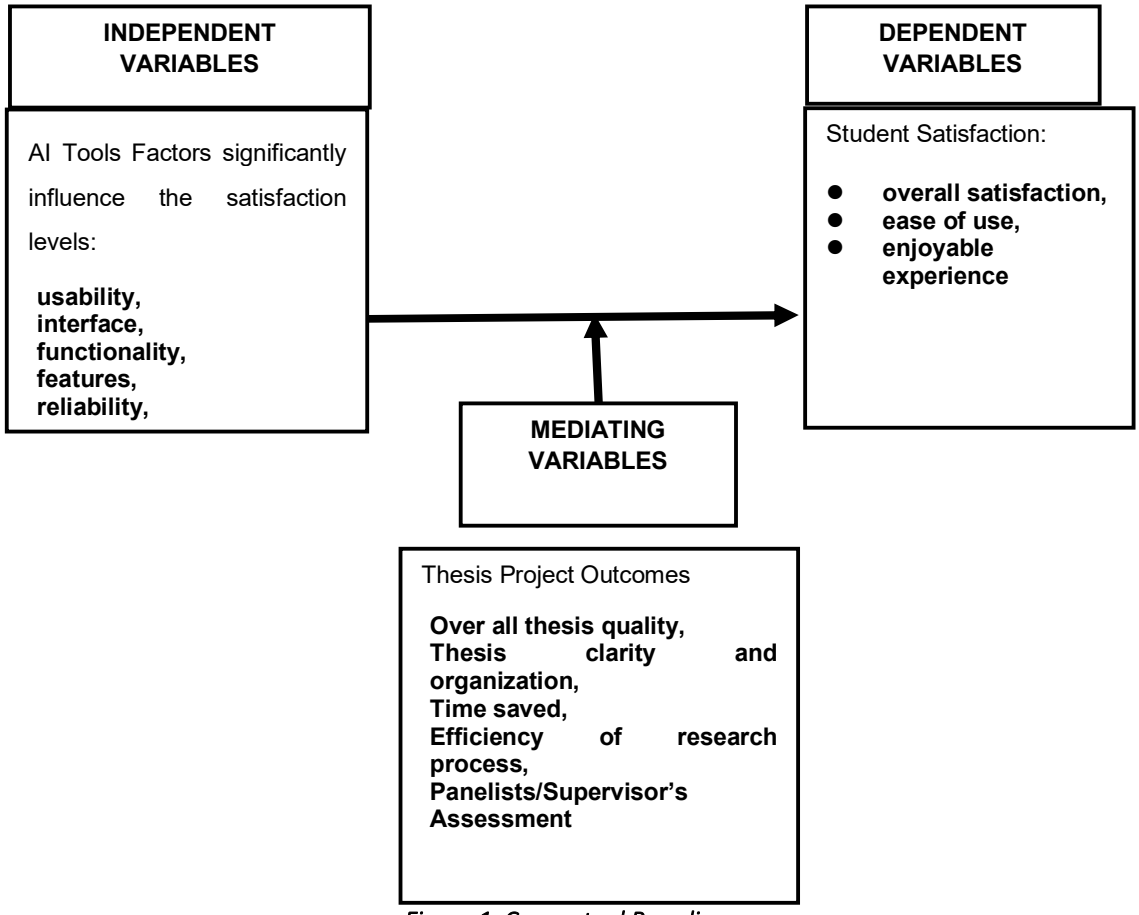


Figure 1. Conceptual Paradigm

Scope and Delimitation

This study assessed the satisfaction levels of 121 fourth-year BSIT and third-year BTVTEd students at Sultan Kudarat State University (SKSU) regarding their use of AI tools in their thesis writing projects (TR1, TR2, ProfTVEd1, and ProfTVEd2) during the academic year 2024-2025. The study employed a questionnaire adapted from Domingo et al. (2023) and Vagias, Wade M. (2006), focusing specifically on tool-related factors: usability, interface, functionality, features, reliability, performance, validity, and reliability. The study was delimited to SKSU students enrolled in the specified programs who had completed the mentioned thesis-related courses within the academic year 2024-2025.

Significance of the Study

This study holds significant implications for several stakeholders:

Students: The findings will provide valuable insights into students' experiences with AI tools, helping them make informed decisions about using these tools effectively and efficiently in their thesis writing.

Educators: The results will inform the development of more effective training programs and support systems for students using AI tools in academic research, focusing specifically on tool-related aspects.

Researchers: The study will contribute to the growing body of knowledge on the impact of AI on student learning and academic writing, offering a specific focus on the undergraduate thesis writing context and the use of the Domingo et al. (2024) questionnaire.

AI Tool Developers: The findings will provide valuable feedback for developers to improve the design, functionality, and usability of AI tools tailored to the needs of student-researchers, particularly concerning the tool-related factors identified in this study.

Sultan Kudarat State University: The study will provide valuable data for SKSU to inform its policies and support systems related to the integration of AI tools into its curriculum and research activities.

Operational Definition of Terms

To add comprehension of the study, the following terms are operationally defined.

Artificial Intelligence (AI) Tools: refer to software applications specifically used by students in their thesis writing process. These tools are defined by their capability to automate or assist with tasks such as grammar and style checking, plagiarism detection, literature review, and data analysis.
Features: The specific capabilities and functions provided by the AI tools, such as grammar checking, plagiarism detection, literature review assistance, and data analysis.
Functionality: The range and effectiveness of the features and capabilities offered by the AI tools in assisting with thesis writing tasks.
Interface: The visual layout and design of the AI tools, including the user-friendliness and intuitiveness of the user interface.
Performance: The speed and efficiency with which the AI tools process information and complete tasks.
Reliability: The consistency and dependability of the AI tools in performing their intended functions without errors or glitches.
Satisfaction: the degree to which students report positive feelings and experiences related to their use of AI tools in their thesis writing. It is measured using a seven-point Likert scale ranging from "strongly disagree" to "strongly agree" on a series of statements assessing various aspects of their AI tool usage experience.
Student-Researchers: refers to third- and fourth-year Bachelor of Science in Information Technology (BSIT) and Bachelor of Technology and Vocational Education (BTVTEd) students at Sultan Kudarat State University who have completed TR1 (Technology Research 1), TR2 (Technology Research 2), ProfTVEd1, and ProfTVEd2 courses and are actively engaged in writing their undergraduate theses during the A.Y. 2024-2025.
Thesis Writing: refers to the entire process of researching, writing, and revising an undergraduate thesis, encompassing all stages from topic selection and literature review to drafting, editing, and final submission.
Usability: The ease with which students can learn to operate and use the AI tools effectively and efficiently to accomplish their thesis writing tasks.

REVIEW OF RELATED LITERATURE AND STUDIES

This chapter of the paper presents the review or related literature, the related studies and synthesis of the study.
Artificial Intelligence (AI) has emerged as a transformative digital tool capable of performing tasks traditionally executed by humans, such as problem-solving, decision-making, and language processing (Sheikh et al., 2023). Its rapid development has significantly impacted various sectors, notably education, where AI integration is reshaping teaching, learning, and research practices. The growing utilization of AI-powered tools in academic settings, particularly in thesis writing, warrants thorough examination to understand their potential benefits and challenges.

AI in Education and Academic Research

The incorporation of AI in educational research has garnered considerable interest due to its capacity to enhance efficiency and accuracy in academic tasks. AI tools such as grammar checkers, literature review assistants, and data analysis applications are increasingly accessible to students and researchers (Kurniati & Fithriani, 2022). These tools facilitate various stages of research, from data collection to manuscript preparation, potentially reducing the time and effort required for thesis development.
Studies have demonstrated positive student perceptions toward AI-powered writing tools. For instance, Kurniati and Fithriani (2022) reported favorable responses to Quillbot, an AI paraphrasing and grammar checking tool, indicating improvements in writing clarity and coherence. Similarly, Kumar and Raman (2022) highlighted that AI tools could support students in overcoming language barriers and enhancing their writing quality. However, these studies primarily focus on general writing support, with limited exploration of their role in complex research tasks like thesis writing.

Student Perceptions and Experiences with AI Tools

While the potential of AI tools is evident, understanding student perceptions remains crucial. Student attitudes toward AI influence their acceptance, effective use, and reliance on such technologies. Kurniati and Fithriani (2022) found that students generally perceived AI tools as beneficial, citing ease of use and time-saving features. Nevertheless, concerns about over-reliance, ethical considerations, and potential biases in AI-generated content persist (CNN, 2023).
Research specifically targeting postgraduate and undergraduate thesis writing is sparse. The limited scope of existing studies leaves a gap in understanding how students experience AI tools during the demanding process of thesis development. For example, the nuanced challenges faced by students in integrating AI into research workflows, and their satisfaction levels with these tools, are yet to be comprehensively explored.

Responsible Use and Ethical Implications

The responsible use of AI in academia is increasingly emphasized through guidelines and policy statements. The University of the Philippines (CNN, 2023) released directives that underscore ethical considerations, such as avoiding plagiarism and ensuring transparency in AI-assisted work. These guidelines advocate for balanced integration of AI, highlighting the importance of training students to use these tools ethically and effectively.

Concerns about bias, accuracy, and over-dependence on AI tools also necessitate ongoing research. Over-reliance on AI may hinder critical thinking and originality, essential components of scholarly research. Thus, understanding student perceptions regarding these issues is vital for developing appropriate support systems and ethical frameworks.

Gaps in Literature and the Need for Context-Specific Research

Despite the proliferation of studies on AI in education, specific research focusing on thesis writing within particular academic programs remains limited. Most existing literature concentrates on general writing skills or language learning, with minimal emphasis on research-intensive tasks like thesis development. Moreover, studies often overlook the unique needs of students in technology-focused undergraduate programs such as BSIT and BTVTEd.

This gap underscores the importance of context-specific investigations, like the current study focusing on students at Sultan Kudarat State University. By assessing student satisfaction with AI tools in thesis writing, this research aims to provide nuanced insights that can inform curriculum design, tool development, and institutional policies.

Methodological Approaches in Existing Research

Prior studies have employed various methods, including surveys, interviews, and mixed-methods designs, to capture student perceptions of AI tools (Kusmaryono et al., 2022). The use of Likert-scale questionnaires, such as the seven-point scale, is prevalent due to its effectiveness in measuring attitudes and satisfaction levels (Kusmaryono et al., 2022). Combining quantitative data with qualitative insights enriches understanding of user experiences, facilitating comprehensive evaluations of AI integration.

Significance of Assessing Satisfaction and Factors Influencing It

Student satisfaction with AI tools is a critical metric, influencing continued usage, skill development, and overall research quality. Factors such as usability, interface design, functionality, features, reliability, and performance significantly affect satisfaction levels (Kusmaryono et al., 2022). Understanding these factors enables educators and developers to optimize AI tools, tailor training programs, and foster positive attitudes toward technological adoption.

Furthermore, establishing correlations between satisfaction and thesis project quality can inform best practices, ensuring AI tools are effectively supporting research outcomes. Such insights are especially pertinent in technology-related programs where students are expected to develop competencies in research and innovation.

Research Design

The study employed a quantitative research design using a descriptive-correlational approach to determine the level of satisfaction of student-researchers using AI tools in their thesis writing and to identify the factors that significantly influenced their satisfaction. The study also explored the correlation between student satisfaction and the quality/efficiency of their thesis projects.

Research Methods

The study utilized a survey method to gather quantitative data. The adopted research instrument was a questionnaire adapted from Domingo et al. (2023) and Vagias, Wade M. (2006), and validated for the specific context of this study. The questionnaire utilized a seven-point Likert scale to measure student satisfaction and related factors.

Locale of the Study

This study was conducted at the College of Industrial Technology, Sultan Kudarat State University, Isulan, Sultan Kudarat, in S.Y. 2024-2025.

Respondents of the Study

The respondents were 121 student-researchers from the third and fourth years of the BSIT and BTVTEd programs at SKSU, 83 from BSIT and 38 from BTVTEd.

Research Instrument

The primary research instrument was a validated questionnaire adapted from Domingo et al. (2023) and Vagias, Wade M. (2006), focusing specifically on tool-related factors: usability, interface, functionality, features, reliability, and performance.

Data Gathering Procedure

Ethical clearance was secured from SKSU's Institutional Review Board (IRB) before commencing data collection. Questionnaires were then distributed to the student-researchers, and completed

questionnaires were collected from the participants. Finally, the collected data were cleaned and organized in preparation for analysis.

RESULTS AND DISCUSSIONS

The increasing accessibility and sophistication of Artificial Intelligence (AI) tools have significantly impacted various aspects of academic research, including thesis writing. These tools offer a range of functionalities, from grammar and style checking to advanced capabilities like literature review assistance, data analysis, and even automated writing suggestions. While offering potential benefits in terms of efficiency and quality, the impact of AI tools on student satisfaction and thesis outcomes remains a subject of ongoing investigation. This study explores student experiences with AI tools in thesis writing, aiming to understand their satisfaction levels and identify factors influencing their perception of these technologies.

This study assessed student satisfaction with AI tools used in thesis writing among 121 students at Sultan Kudarat State University (38 BTVTEd and 83 BSIT). The overall aim was to gauge satisfaction and identify influential factors.

Table 1: Overall Satisfaction Result

Descriptives

OBJECTIVE 1: OVERALL SATISFACTION OF STUDENTS

Descriptives

	Program	Overall Satisfaction	Ease of use	Enjoyable Experience
N	BSIT	78	78	78
	BTVTE	43	43	43
Missing	BSIT	0	0	0
	BTVTE	0	0	0
Mean	BSIT	4.27	4.18	4.06
	BTVTE	4.28	4.14	4.14
Median	BSIT	4.00	4.00	4.00
	BTVTE	4	4	4
Standard deviation	BSIT	0.750	0.769	0.827
	BTVTE	0.630	0.743	0.710
Minimum	BSIT	2	2	1
	BTVTE	3	3	3
Maximum	BSIT	5	5	5
	BTVTE	5	5	5
Shapiro-Wilk W	BSIT	0.787	0.815	0.817
	BTVTE	0.768	0.804	0.803
Shapiro-Wilk p	BSIT	< .001	< .001	< .001
	BTVTE	< .001	< .001	< .001

Table 2: Mann-Whitney Test result for Overall Satisfaction of Students among BTVTE and BSIT

Independent Samples T-Test

		Statistic	p
Overall Satisfaction	Mann-Whitney U	1641	0.830
Ease of use	Mann-Whitney U	1616	0.722
Enjoyable Experience	Mann-Whitney U	1634	0.800

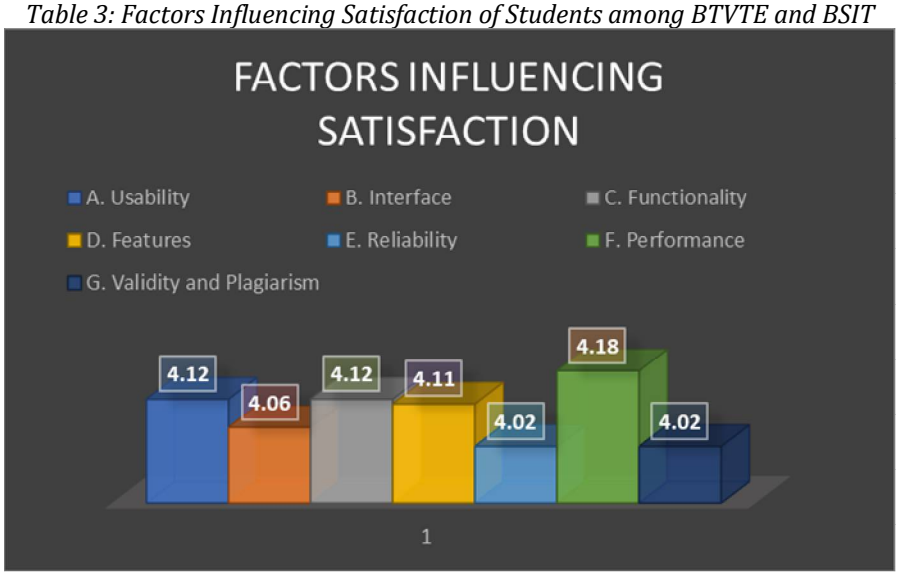
Note. H_a $\mu_{BSIT} \neq \mu_{BTVTE}$

Descriptive statistics (Table 1) reveal generally high levels of student satisfaction with AI tools for thesis writing, with mean scores above the midpoint of the scale for overall satisfaction (4.27), ease of use (4.18), and enjoyable experience (4.06). Low standard deviations (0.750, 0.769, and 0.827, respectively) suggest consistent satisfaction levels across the student population. However, these overall means may mask differences between BSIT and BTVTEd students. To investigate this, Mann-Whitney U tests (Table 2) were conducted to compare satisfaction levels between the two programs for each satisfaction measure. These non-parametric tests were appropriate given the non-normal distribution of the data (Shapiro-Wilk test, $p < .001$ for all three variables).

The results (Table 2) show no statistically significant differences between BSIT and BTVTEd students in overall satisfaction ($U = 1641$, $p = 0.830$), ease of use ($U = 1616$, $p = 0.722$), or enjoyable experience ($U = 1634$, $p = 0.800$). These findings suggest that the high overall satisfaction observed in the descriptive statistics is consistent across both programs. There is no evidence to suggest that one program's students experienced significantly different levels of satisfaction with the AI tools compared to the other program's

students. This aligns with the findings of Yuskovych-Zhukovska et al. (2022), who highlight the potential benefits of AI in education while also acknowledging the need for further research to understand the diverse experiences and perspectives of students across different educational contexts. While our study found no significant differences between BSIT and BTVTEd students, future research could explore factors that might influence student satisfaction with AI tools in more detail, considering variables such as prior experience with technology, individual learning styles, and the specific nature of the AI tools employed.

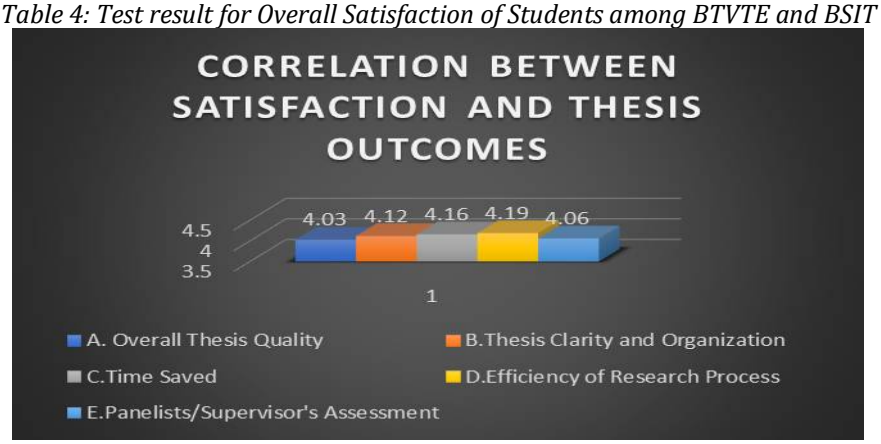
Table 3: Factors Influencing Satisfaction of Students among BTVTE and BSIT



The study by Chatterjee, Khorana, and Kizgin (2022) highlights the growing importance of understanding citizen satisfaction with the use of artificial intelligence (AI) in public services, emphasizing the need for a citizen-centric design to maximize AI's potential. Our study similarly explores satisfaction with AI tools, revealing several factors significantly influencing satisfaction levels. High ratings were observed for usability (4.12), functionality (4.12), features (4.11), and performance (4.18), suggesting these aspects of the AI tools were effective and well-received. Lower ratings were found for reliability (4.02), interface (4.06), and validity and plagiarism (4.02). These areas represent potential weaknesses requiring improvement, possibly indicating issues with tool consistency, user-friendliness, and the accuracy or originality of the generated content.

To determine the statistical significance of these observed differences and to compare the satisfaction levels of fourth-year BSIT and third-year BTVTEd students, Mann-Whitney U tests were conducted. The results of these tests, however, indicated no statistically significant differences between the two groups across any of the factors (all p-values > 0.05) (Please see Appendix). This suggests that, based on this analysis, BSIT and BTVTEd students did not differ significantly in their satisfaction levels regarding the usability, interface, functionality, features, reliability, performance, or validity and plagiarism of the AI tools.

Table 4: Test result for Overall Satisfaction of Students among BTVTE and BSIT



Linear Regression

Model Fit Measures

Model	R	R^2
1	0.226	0.0512

Model Coefficients - OVER ALL SATISFACTION

Predictor	Estimate	SE	t	p
Intercept [a]	4.17392	0.533	7.8348	< .001
STUDENTS:				
BTVTE – BSIT	0.05182	0.159	0.3257	0.745
OVERALL THESIS QUALITY	0.10411	0.197	0.5292	0.598
THESIS QUALITY AND ORGANIZATION	-0.38728	0.183	-2.1174	0.036
TIME SAVED	-0.11793	0.169	-0.6974	0.487
EFFECIENCY OF THE RESEARCH PROCESS	0.36388	0.197	1.8454	0.068
PANELISTS/SUPERVISORS ASSESSMENT	-0.00942	0.187	-0.0503	0.960

[a] Represents reference level

A linear regression model was employed to investigate the relationship between overall student satisfaction with AI tools and various thesis outcome measures. The model's R-squared value of 0.0512 indicates that only 5.12% of the variance in overall satisfaction is explained by the included predictors. While a positive correlation was observed between satisfaction and thesis outcomes, the regression analysis revealed a statistically significant negative relationship between 'Thesis Quality and Organization' and overall satisfaction ($\beta = -0.38728$, $p = 0.036$). This is unexpected and requires further investigation. The remaining predictors (student group, overall thesis quality, time saved, efficiency of the research process, and panelists/supervisors assessment) were not significantly associated with overall satisfaction (all $p > 0.05$). The low R-squared value suggests that other factors not included in this model may also significantly influence student satisfaction. Further analysis, including the calculation of effect sizes, is warranted to fully understand the strength and practical significance of these relationships and to explore potential confounding variables.

IMPLICATIONS

This study investigated student satisfaction with AI tools used in thesis writing at Sultan Kudarat State University, comparing BSIT and BTVTEd students. The overall findings reveal generally high satisfaction levels across both programs, with no statistically significant differences between BSIT and BTVTEd students in overall satisfaction, ease of use, or enjoyment. This suggests that the AI tools were, in general, well-received by students regardless of their program.

However, while overall satisfaction was high, the analysis of specific factors influencing satisfaction revealed some important nuances. While aspects like usability, functionality, features, and performance received high ratings, indicating effective tool design and implementation, areas like reliability, interface, and validity/plagiarism showed lower ratings, suggesting potential areas for improvement in the AI tools. These weaknesses might be related to inconsistencies in tool performance, user-friendliness, or the accuracy/originality of the generated content.

The linear regression analysis, aimed at understanding the relationship between overall satisfaction and thesis outcomes, yielded a low R-squared value (0.0512), indicating that the included predictors explain only a small portion of the variance in overall satisfaction. Furthermore, the model revealed an unexpected negative relationship between thesis quality and organization and overall satisfaction, highlighting a need for further investigation into this counterintuitive finding. Other thesis outcome measures (overall thesis quality, time saved, efficiency of research, and panelists' assessments) did not show a significant relationship with overall satisfaction.

In summary, while the study demonstrates generally high satisfaction with AI tools among students, it also points to specific areas needing improvement within the tools themselves (reliability, interface, and content validity). The weak predictive power of the regression model highlights the need for further research to identify additional factors influencing student satisfaction. The unexpected negative relationship between thesis organization and satisfaction warrants further investigation, potentially involving qualitative data to understand the reasons behind this finding. Future research should consider a wider range of variables, including individual student characteristics and contextual factors, to gain a

more comprehensive understanding of the complex interplay between AI tool usage, student satisfaction, and thesis outcomes.

CONCLUSIONS

Artificial intelligence (AI) offers transformative potential for education, enhancing teaching and learning in numerous ways. AI-powered tools can personalize learning experiences, provide immediate feedback, automate administrative tasks, and offer accessible support for diverse learners. However, responsible implementation is crucial, addressing ethical considerations and potential biases to ensure equitable access and effective integration. By thoughtfully incorporating AI, educational institutions can create more engaging, efficient, and effective learning environments, preparing students for a future increasingly shaped by technology. Continued research and development are essential to harness AI's full potential while mitigating its risks and maximizing its benefits for all learners.

RECOMMENDATIONS

1. **Enhance AI Tool Development:** AI tool developers should prioritize improvements in reliability, interface design, and content validity to address the shortcomings identified in this study. Focus should be placed on ensuring consistent performance, user-friendly interfaces, and accurate, original content generation.
2. **Investigate the Negative Correlation:** Further research is needed to explore the unexpected negative correlation between thesis organization and overall student satisfaction with AI tools. Qualitative methods, such as interviews or focus groups, could provide valuable insights into the underlying reasons for this finding.
3. **Develop Targeted Training Programs:** Institutions should develop training programs specifically designed to equip students with the skills and knowledge needed to effectively and ethically utilize AI tools in their thesis writing. This training should address both the technical aspects of tool usage and the ethical implications of AI-assisted writing.
4. **Explore Broader Factors Influencing Satisfaction:** Future research should investigate a wider range of factors that might influence student satisfaction with AI tools, including individual learning styles, prior technological experience, and the specific nature of the AI tools employed. This could involve mixed-methods approaches combining quantitative and qualitative data.
5. **Integrate AI ethically and responsibly:** Educational institutions should develop clear guidelines and policies regarding the ethical use of AI tools in academic writing. These guidelines should address issues such as plagiarism, bias, and transparency, ensuring responsible integration of AI into the curriculum.

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APPENDICES

AN ASSESSMENT OF STUDENT-RESEARCHER SATISFACTION WITH THE USE OF ARTIFICIAL INTELLIGENCE IN THESIS WRITING

Respondent's Name: _____ Age: _____
Date: _____ Gender:_____
Program/ Major / Year Level (Ex. BTVTE – FSM-3rd year):_____
How many AI tools did you use for your thesis? (Specify number and names)
_____
_____
_____
_____

SCORESHEET

Five - Point Likert Scale

Instructions:

This questionnaire assesses your satisfaction with AI tools used in your thesis writing. This instrument is adapted from the work of Domingo et al. (2023) and Vagias, Wade M. (2006). Please read each statement carefully and indicate your level of satisfaction by selecting the number that best reflects your opinion. There are no right or wrong answers; your honest opinion is important.

Satisfaction Scale (5-point scale):

Use the following scale to rate your level of satisfaction with each statement:
1 – Not at all satisfied, 2 – Slightly satisfied, 3 – Moderately satisfied, 4 – Very satisfied, 5 – Extremely satisfied
(Example: If you are extremely satisfied with a statement, you would select "5". If you are not at all satisfied, you would select "1".)

Research questions	1 – Not at all satisfied, 2 – Slightly satisfied, 3 – Moderately satisfied, 4 – Very satisfied, 5 – Extremely satisfied (Vagias, Wade, 2006) (Check the box you want based on the level of satisfaction, 1 is the lowest and 5 is the highest)				
Overall Satisfaction	5	4	3	2	1
1. **Overall Satisfaction:** I am overall satisfied with my experience using AI tools for my thesis.					
2. **Ease of Use:** Using AI tools for my thesis was easy and straightforward.					
3. **Enjoyable Experience:** Using AI tools made the thesis writing process more enjoyable for me.					
Factors Influencing Satisfaction	5	4	3	2	1
A. **Usability**					
1. The AI tools were easy to learn and use.					
2. The AI tools were intuitive and easy to navigate.					
3. The instructions provided for the AI tools were clear and concise.					
4. I found the AI tools easy to integrate into my existing workflow.					
5. I felt confident using the AI tools to complete my thesis-related tasks.					
B. **Interface**					
1. The user interface of the AI tools was visually appealing and uncluttered.					
2. The AI tools' interface was easy to understand and navigate. 3. The layout and design of the AI tools were helpful and efficient.					
4. The AI tools provided clear and concise feedback.					
5. The interface of the AI tools was consistent and predictable.					
C. **Functionality**					
1. The AI tools accurately performed the tasks I needed them to do.					
2. The AI tools provided helpful and relevant assistance with my thesis writing.					
3. The AI tools met my expectations in terms of their functionality.					
4. The features of the AI tools were relevant to my thesis research.					
5. The AI tools effectively supported my thesis writing process.					
D. **Features**					
1. The AI tools offered a sufficient range of features for my thesis writing needs.					
2. The features of the AI tools were easy to access and use.					
3. The AI tools offered features that were not available in other software I used.					
4. The AI tools' features were well-integrated and worked seamlessly together.					
5. The features of the AI tools enhanced my thesis writing efficiency.					
E. **Reliability**					
1. The AI tools were reliable and consistent in their performance.					
2. The AI tools rarely experienced errors or glitches.					
3. I could depend on the AI tools to provide accurate results.					
4. The AI tools were consistently available when I needed them.					
5. The AI tools performed as expected without unexpected issues.					
F. Performance					
1. The AI tools processed information quickly and efficiently.					
2. The AI tools completed tasks in a timely manner.					
3. The AI tools' response times were acceptable.					
4. The AI tools did not consume excessive computing resources.					
5. The AI tools' overall performance was satisfactory.					
G. **Validity and Plagiarism**					
1. To what extent did the AI tools help ensure the validity and reliability of your research findings?					
2. How confident are you in the accuracy of the results obtained with the assistance of AI tools?					
3. Did you use the AI tools in a way that ensured originality and avoided plagiarism in your thesis?					
4. To what extent did you rely on the AI tools to generate ideas or arguments for your thesis?					

5. To what extent did the AI tools help you with critical evaluation in your thesis?					
Correlation Between Satisfaction and Thesis Outcomes					
1. **Overall Thesis Quality:** My thesis is of high quality due in part to my use of AI tools.					
2. **Thesis Clarity and Organization:** Using AI tools helped me improve the clarity and organization of my thesis.					
3. **Time Saved:** Using AI tools significantly reduced the time it took me to complete my thesis.					
4. **Efficiency of Research Process:** Using AI tools improved the overall efficiency of my research process.					
5. **Panelists/Supervisor's Assessment:** My thesis supervisor rated the quality of my thesis highly, in part due to my effective use of AI tools.					

Thank you for your time and participation in this study. Your responses are greatly appreciated and will be kept confidential.

JENA MAE FATAGANI-VALERIO
JAY RENEE G. VALERIO
JONALYN P. BALANCIO
Junior Researchers

JONALD L. PIMENTEL, PhD
Senior Researcher

JAMOVI RESULTS

Research Q1:

Descriptives

OBJECTIVE 1: OVERALL SATISFACTION OF STUDENTS

Descriptives

	Program	Overall Satisfaction	Ease of use	Enjoyable Experience
N	BSIT	78	78	78
	BTVTE	43	43	43
Missing	BSIT	0	0	0
	BTVTE	0	0	0
Mean	BSIT	4.27	4.18	4.06
	BTVTE	4.28	4.14	4.14
Median	BSIT	4.00	4.00	4.00
	BTVTE	4	4	4
Standard deviation	BSIT	0.750	0.769	0.827
	BTVTE	0.630	0.743	0.710
Minimum	BSIT	2	2	1
	BTVTE	3	3	3
Maximum	BSIT	5	5	5
	BTVTE	5	5	5
Shapiro-Wilk W	BSIT	0.787	0.815	0.817
	BTVTE	0.768	0.804	0.803
Shapiro-Wilk p	BSIT	< .001	< .001	< .001
	BTVTE	< .001	< .001	< .001

Independent Samples T-Test

		Statistic	p
Overall Satisfaction	Mann-Whitney U	1641	0.830
Ease of use	Mann-Whitney U	1616	0.722
Enjoyable Experience	Mann-Whitney U	1634	0.800

Note. H_a $\mu_{BSIT} \neq \mu_{BTVTE}$

Research Q2:

Independent Samples T-Test

		Statistic	df	p
USABILITY 1	Student's t	-1.1321	119	0.260
	Mann-Whitney U	1495		0.281
USABILITY 2	Student's t	0.0703 [a]	119	0.944
	Mann-Whitney U	1629		0.776
USABILITY 3	Student's t	-0.7566	119	0.451
	Mann-Whitney U	1568		0.526
USABILITY 4	Student's t	-0.1955 [a]	119	0.845
	Mann-Whitney U	1646		0.851
USABILITY 5	Student's t	-0.5736	119	0.567
	Mann-Whitney U	1527		0.381
INTERFACE1	Student's t	0.2410 [a]	119	0.810
	Mann-Whitney U	1610		0.681
INTERFACE 2	Student's t	-0.8292	119	0.409
	Mann-Whitney U	1575		0.538
INTERFACE 3	Student's t	-0.4106	119	0.682
	Mann-Whitney U	1568		0.520
INTERFACE 4	Student's t	0.0521 [a]	119	0.959
	Mann-Whitney U	1658		0.910
INTERFACE 5	Student's t	-0.7031 [a]	119	0.483
	Mann-Whitney U	1572		0.533
FUNCTIONALITY1	Student's t	0.4244 [a]	119	0.672
	Mann-Whitney U	1581		0.550
FUNCTIONALITY 2	Student's t	-0.7491	119	0.455
	Mann-Whitney U	1584		0.573
FUNCTIONALITY 3	Student's t	-0.7597	119	0.449
	Mann-Whitney U	1558		0.484
FUNCTIONALITY 4	Student's t	-0.3110 [a]	119	0.756
	Mann-Whitney U	1652		0.882
FUNCTIONALITY 5	Student's t	-0.3658 [a]	119	0.715
	Mann-Whitney U	1628		0.770
FEATURES1	Student's t	0.8884	119	0.376
	Mann-Whitney U	1520		0.357
FEATURES 2	Student's t	-0.8436	119	0.401
	Mann-Whitney U	1553		0.460
FEATURES 3	Student's t	0.7793	119	0.437
	Mann-Whitney U	1527		0.364
FEATURES 4	Student's t	0.4802 [a]	119	0.632
	Mann-Whitney U	1537		0.409
FEATURES5	Student's t	-0.3285	119	0.743
	Mann-Whitney U	1673		0.981

Note. H_a $\mu_{BSIT} \neq \mu_{BTVTE}$

[a] Levene's test is significant ($p < .05$), suggesting a violation of the assumption of equal variances

Independent Samples T-Test

		Statistic	df	p
RELIABILITY 1	Student's t	-0.3463	119	0.730
	Mann-Whitney U	1628		0.768
RELIABILITY 2	Student's t	1.0596	119	0.291
	Mann-Whitney U	1473		0.238
RELIABILITY 3	Student's t	0.9463	119	0.346
	Mann-Whitney U	1491		0.279
RELIABILITY 4	Student's t	0.5664	119	0.572
	Mann-Whitney U	1552		0.466
RELIABILITY 5	Student's t	1.3701	119	0.173
	Mann-Whitney U	1447		0.175
PERFORMANCE 1	Student's t	-1.5403	119	0.126
	Mann-Whitney U	1441		0.156
PERFORMANCE 2	Student's t	-1.0899	119	0.278
	Mann-Whitney U	1533		0.390
PERFORMANCE 3	Student's t	-1.2491	119	0.214
	Mann-Whitney U	1479		0.232
PERFORMANCE 4	Student's t	0.1692 [a]	119	0.866
	Mann-Whitney U	1633		0.794
PERFORMANCE 5	Student's t	-1.3896	119	0.167
	Mann-Whitney U	1454		0.177
VALID AND PLAGIARISM 1	Student's t	0.0163	119	0.987
	Mann-Whitney U	1651		0.877
VALID AND PLAGIARISM 2	Student's t	0.6497	119	0.517
	Mann-Whitney U	1552		0.459
VALID AND PLAGIARISM 3	Student's t	0.5162	119	0.607
	Mann-Whitney U	1537		0.406
VALID AND PLAGIARISM 4	Student's t	1.3081	119	0.193
	Mann-Whitney U	1429		0.147
VALID AND PLAGIARISM 5	Student's t	1.3873	119	0.168
	Mann-Whitney U	1441		0.155

Note. H_a $\mu_{BSIT} \neq \mu_{BTVTE}$

[a] Levene's test is significant ($p < .05$), suggesting a violation of the assumption of equal variances

Research 3:

Linear Regression

Model Fit Measures

Model	R	R^2
1	0.226	0.0512

Model Coefficients - OVER ALL SATISFACTION

Predictor	Estimate	SE	t	p
Intercept [a]	4.17392	0.533	7.8348	< .001
STUDENTS:				
BTVTE – BSIT	0.05182	0.159	0.3257	0.745
OVERALL THESIS QUALITY	0.10411	0.197	0.5292	0.598
THESIS QUALITY AND ORGANIZATION	-0.38728	0.183	-2.1174	0.036
TIME SAVED	-0.11793	0.169	-0.6974	0.487
EFFECIENCY OF THE RESEARCH PROCESS	0.36388	0.197	1.8454	0.068
PANELISTS/SUPERVISORS ASSESSMENT	-0.00942	0.187	-0.0503	0.960

[a] Represents reference level