



Analyze ChatGPT Usage in University Students' Academic Writings

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Abstract. ChatGPT can be a helpful tool however, it often leads to misinterpretations that distort the intended message, and in some cases, significant plagiarism. In addition, no scientific evidence exists to support the assertion that AI-based language tools can conduct in-depth research, such as hypothesis development, data analysis, and result discussions. Purpose of this research was to analyze the knowledge, opinions and histories of university students regarding ChatGPT usage, to find out students' concern about using ChatGPT for academic writing purposes and ethics that university students considered to be important while using ChatGPT. The data were collected from 111 students from four countries in Asia namely Indonesia, Malaysia, Philippines and Turkey. Findings show that students consider ChatGPT is a revolutionary technology that helps students in many ways. Data collected and after being analyzed by reliability and hypothesis testing showed that the effect of using ChatGPT remains significant on students' views. More surprisingly from the results of the analysis of student open answers that have been provided questions based on the results of the collected student answers, only 11% of the samples taken have similar answers that are similar to each point. The results of checking plagiarism are also high at 13%.

Keywords: ChatGPT, Academic Writings, Students, Education

1 Introduction

The digitized universe keeps getting in-creasingly sophisticated each year. Researchers are finding answers through inno-vation. A significant advancement in digital technology is expected in the future of Intel-ligence (AI) (Yaqub & Alsabban, 2023). Artificial intelligence is a catchword defin-ing many concepts in IT, like computing, software creation, and data transmission technology (Mohammad, 2020). In addition, there are concerns about accountability, in-stitutionalization, and oversight issues (Seo et al., 2021). AI systems are lauded for their capabilities to increase the quantity and quality of communication, deliver prompt and customized peer-to-student support on a large scale, and enhance the sense of com-munity. Indeed, the negative perceived by

both students and teachers often stem from the positive aspects of AI systems (Kamalov et al., 2023). For example, students and teachers appreciate AI's ability to communicate directly, but at the same time, they worry about AI-related misconceptions or misleading (Seo et al., 2021). As conveyed by Fitria (2021) artificial intelligence has also expanded into the world of education. AI systems enable learners to use robot-like teaching assistants. Times require the education sector to adjust to technology developed to improve education quality, especially in adjusting information and communication technology. Digitized learning activities under development can be presented through AI applications (Fitria, 2021).

ChatGPT has represented one of the significant milestones in the field of artificial intelligence (Roumeliotis & Tselikas, 2023). ChatGPT, the most recent iteration of the language model system, was launched on November 30, 2022 (Castelvecchi, 2022). OpenAI is the organization responsible for the release of the platform. OpenAI is a nonprofit research company that focuses on creating and advancing artificial intelligence (AI). ChatGPT is a language-generating software that utilizes technology to forecast the following phrase or word in a dialogue or text command (Dwivedi et al., 2023). Simply put, ChatGPT is a chatbot or computer program in the form of a virtual robot that has the ability to simulate human-like conversations. As a prototype, this AI chatbot can respond to natural human language and reply automatically. Its capabilities are said to be able to solve any problem and replace Google (Menon, 2023). ChatGPT OpenAI can provide comprehensive answers to difficult questions and therefore exhibits superior intelligence compared to other chatbots. ChatGPT OpenAI is an instructional GPT model trained to follow instructions rapidly and give detailed feedback. Notably, ChatGPT OpenAI is designed to recall earlier questions and self-adjust based on input. Numerous previous studies have examined chatbots (Fitria, 2023).

Chat GPT simulates real conversations and gives automatically answered user queries with NLP. It works by aggregating information gathered from internet sources, such as source code, and combines it without labels, then feeds it into a deeper understanding algorithm (Iriyani et al., 2023). ChatGPT utilizes advanced chatbot technology to respond to a variety of text-based requests, from basic questions to more complicated tasks like generating thank-you letters and instructions. This enables individuals to effectively address and resolve productivity issues. ChatGPT's ability to comprehend user requests efficiently with a vast data set enables it to provide responses in near-human language (Haleem, 2022). Its remarkable execution of intricate functions and human-like language production puts it at the forefront of the artificial intelligence and natural language processing fields (Lund & Wang, 2023). Based on research that has been analyzed by Murcahyanto (2023), the use of GPT chat in educational management can increase student independence, so it can be an effective alternative learning method and should be filtered and directed by teachers. However, this study has limitations because it was conducted on a relatively small sample. Therefore, further research with a larger sample and from different universities is needed. The use of GPT chat in learning also poses challenges to the value of ethics and originality of work that need to be taken seriously (Murcahyanto, 2023).

ChatGPT is capable of composing academic essays, summarizing research papers, and answering questions aimed at passing medical exams (Cheung et al., 2023). As a

consequence, the platform has generated research abstracts that scientists struggle to distinguish as having been composed by a non-human AI. Nonetheless, it also has the potential to generate spam, ransomware, and other malicious outcomes. Chatbots could reference substandard research that includes fraudulent data, which appears plausible enough to deceive the readers. The concern lies in the fact that there are no mechanisms in place for journal editors, reviewers, and readers to identify such inaccuracies, biases, or omissions (Park, 2023). For summaries or introductions, ChatGPT can be a helpful tool. However, it often leads to misinterpretations that distort the intended message, and in some cases, significant plagiarism. In addition, no scientific evidence exists to support the assertion that AI-based language tools can conduct in-depth research, such as hypothesis development, data analysis, and result discussions. Their primary usefulness largely lies in assisting researchers to promptly document their project drafts. For instance, in a recently published academic manuscript, the authors acknowledged ChatGPT's contribution to drafting the abstract with minimal author involvement (Dwivedi et al., 2023).

Similar research has been carried on by Farhi (2023) however only in UAE so there are limitation in the geographical situation as the results of the study cannot be generalized. Hence, we were interested in researching knowledge, opinions and usage history on ChatGPT for the purpose on academic writings across Indonesian, Malaysian, Filipino and Turkish university students. Thus, the purpose of this research was to analyze the knowledge, opinions and histories of university students regarding ChatGPT usage, to find out students' concern about using ChatGPT for academic writing purposes and ethics that university students considered to be important while using ChatGPT.

2 Method

In this study uses cross-sectional design. Cross-sectional design was used for population-based surveys and to assess prevalence (Setia, 2016). The emphasis on providing results can be generalized from the data that have been gathered within a brief period. The data were obtained from distributing a structured questionnaire closed to a linkert scale, from strongly disagree (1), Disagree (2), Neutral (3), Agree (4) and Strongly Agree (5). Distribution and completion of questionnaires was carried on voluntarily by the university students with no compulsion. The data were analyzed using both descriptive and inferential statistics. Target populations in this research were university students from Indonesia, Malaysia, Philippines and Turkey with total population 111 university students from four countries with different origin universities. The area was randomly selected by volunteering students from various countries so that the four countries were obtained with the largest percentage of 80% of students coming from Indonesia. The descriptive demographic analyses of respondents show 71.2% of respondents are female and 28.8% are male. 16.2% were 1-20 years old, 82.8% were 21-25 years old and 0.9% were over 25 years old. In terms of education level, 91.2% of the respondents were at the undergraduate level, 4.5% were at the diploma level and 3.6% were master's level students. Lastly, 31.53% of respondents have a major background in Teacher Training and Education, 9% from engineering and business

economics, 13.5% from health and medical sciences, 2.7% from social scienc-es, 4.5% from vocational Education, 3.6% from fishery, livestock and agriculture, 9% from psychology, and 17.17% from math and natural sciences. Table 1 shows a detailed description of the respondents' characteristics.

The questionnaires are divided in four sections. The first part consists of the questions concerning the characteristics of the respondents, while the remaining three parts are based on the measurement of knowledge, opinions and usage history of ChatGPT. Each item details of the questionnaire were analyzed by reliability analysis and Cronbach Alpha value.

3 Result and Discussion

The reliability analyze result (Table 2) of Preferences for Sourcing Authorship construct shows the Composite Reliability value of 0.796 (>0.7) and Cronbach Alpha value of 0.751 (>0.7). AI Preferences in Use construct with five measurement items and designed a five-point Likert scale. Composite reliability analysis of the construct showed a Composite Reliability value of 0.827 (>0.7) and a Cronbach Alpha value of 0.824 (>0.7). Proportion of ChatGPT Usage was measured by adopting survey items from to examine students' views on the use of ChatGPT for educational purposes. Twelve items were selected for the current study. Composite reliability analysis of the construct showed a Composite Reliability value of 0.945 (>0.7) and a Cronbach Alpha value of 0.942 (>0.7). Next, Preferences for Using ChatGPT for Writing Practicum Reports/Course Assignments/ Scientific Articles and Preferences for Using ChatGPT for the thesis proposal and thesis writing for the use of ChatGPT were examined with a total of 25 items of measurement selected and used after formal editing in the current study. Composite reliability analysis of the respective constructs showed Composite Reliability values of 0.958 and 0.960 (>0.7) and Cronbach Alpha values of 0.957 and 0.958 (>0.7).

Table 1. Respondents' Characteristics

Variables	Category	N	%	M	SD	VAR
Gender	Female	79	71.2	1.29	.455	.207
	Male	32	28.8			
Age	1-20	18	16.2	1.85	.386	.149
	21-25	92	82.8			
	>25	1	0.9			
Study Year	Undergraduate	102	91.9	1.13	.450	.202
	Postgraduate	4	3.6			
	Diploma	5	4.5			
University Major	Teacher Training and Education	35	31.53	4.23	3.095	9.576
	Engineering	10	9			
	Business	10	9			
	economics					
	Health and medical sciences	15	13.5			
	Social sciences	3	2.7			

Vocational Education	5	4.5
Fishery, Livestock and Agriculture	4	3.6
Psychology	10	9
Math and natural sciences	19	17,17

Descriptive and inferential statistical analysis of Partial Least Square Structural Equation Modeling (PLS-SEM) yielded convergent validity of the survey instrument which was checked by conducting Confirmatory Factor Analysis (CFA) as a data reduction approach to check the internal consistency between the study variables. Table 3 shows the CFA values for each item. It was found that most of the CFA values remained greater than the minimum threshold value of 0.5 while the Average Variance Extracted (AVE) value was also greater than 0.5 (Preferences in Sourcing Authorship 0.733, AI Preferences in Use 0.711, Proportion of ChatGPT Usage 0.945, Preferences for Using ChatGPT for Writing Practicum Re-ports/Course Assignments/Scientific Articles 0.754 dan Preferences for Using ChatGPT for the thesis proposal and Preferences for Using ChatGPT for the thesis proposal and thesis writing 0.77).

Table 2. Respondents' Characteristics

Variables	Measurement Items	CA	CR
Preferences in Sourcing Authorship	Frequent scientific writing, what do you think?	0.751	0.796
	Scientific writing is difficult, what do you think?		
	Often experiencing problems when writing scientific papers, what do you think?		
AI Preferences in Use	AI (Artificial Intelligence) is well known, what do you think?	0.824	0.827
	The rise of AI (Artificial Intelligence) has received a positive response, what do you think?		
	AI is always used to find ideas/references, what do you think?		
	AI is used to make work easier, what do you think?		
	Work completed by AI is always proofread, what do you think?		
Proportion of ChatGPT Usage	ChatGPT is very often used more than 50% for scientific writing, what do you think?	0.942	0.945
	AI ChatGPT is well known both in terms of function and benefits, what do you think?		
	ChatGPT is often used, what do you think?		
	ChatGPT's existence is very interesting, what do you think?		
	ChatGPT is very easy to use, what do you think?		
	ChatGPT is able to present valid, clear and detailed information, what do you think?		

	GPT chat makes it easier to understand the information you are looking for, what do you think?		
	All the necessary information is available on chatGPT, what do you think?		
	The information from the GPT chat is reliable so there is no need to find out the truth anymore, what do you think?		
	ChatGPT presents the same information when others type in similar keywords the answers have the exact same grammar or sentences, what do you think?		
	The use of chatGPT affects the level of laziness of students in critical thinking, what do you think?		
	A stable internet connection is required to access ChatGPT, what do you think?		
	The use of ChatGPT provides information that has been conveyed so that it adds new vocabulary, what do you think?		
Preferences for Using ChatGPT for Writing Practicum Reports/Course Assignments/Scientific Articles	ChatGPT can be helpful in finding additional relevant references, what do you think?	0.957	0.958
	ChatGPT is always used as a tool in writing lab reports/assignments/scientific articles, what do you think?		
	The use of ChatGPT is very helpful for creating argumentative paragraphs such as backgrounds in practicum reports/assignments/scientific articles, what do you think?		
	There is a concern about potential dependency on ChatGPT in writing scientific reports/assignments/articles, what do you think?		
	ChatGPT can help with specific challenges such as writing in a foreign language or complex topics, what do you think?		
	Through ChatGPT, you can get useful writing guidelines for completing practicum reports / Matkul assignments / scientific articles, what do you think?		
	Using ChatGPT helps to avoid plagiarism in practicum reports / Matkul assignments / scientific articles, what do you think?		
	ChatGPT helps develop ideas and arguments in a report, what do you think?		
	ChatGPT is able to assist in finding additional relevant references to support practicum reports/matkul assignments /scientific articles, what do you think?		
	ChatGPT helps to check grammar and spelling in lab reports/assignments/scientific articles, what do you think?		

Preferences for Using ChatGPT for the thesis proposal and thesis writing	The practicum report/course assignment/scientific article that I do with ChatGPT will not be the same as other friends, what do you think? The practicum report/course assignment/scientific article that I do with ChatGPT will not be the same as other friends, what do you think? ChatGPT is very helpful in finding ideas or topics for your thesis proposal. ChatGPT can provide information about thesis proposal topics that are being searched from the oldest to the newest, what do you think? ChatGPT creates a dependency to solve problems onthesis/thesis proposals, what do you think? There is a tremendous influence of Chat GPT in helping withthesis proposals, what do you think? Information from the ChatGPT uses standardized language/sentences and is in accordance with the thesis/thesis proposal,what do you think? Using ChatGPT almost never revisions after consulting withthe supervisor The results obtained from ChatGPT are always discussedagain with the supervisor, what do you think? When obtaining information from the ChatGPT, directly copy and paste it into a thesis/thesis proposal withoutparaphrasing, what do you think? ChatGPT can help in completing a thesis proposal/thesis quickly, what do you think? ChatGPT can really help to complete the whole thesisproposal/thesis efficiently, what do you think? ChatGPT can reduce plagiarism in thesis proposals, what doyou think? ChatGPT can affect the ability to think in making a thesis,what do you think? ChatGPT is highly recommended for college students, whatdo you think?	0.958	0.960
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As such, the two criteria suggest convergent validity was established due to internally consistency of constructs. Goodness at fit is an essential measurement for determining convergent reliability of measurement instruments. Empirical modelling made based on observational data is acceptable evaluated using the model fit index (Goodness of Fit, or GOF) in SEM (Narimawati & Sarwono, 2022). The Table 4 showed the chi-square score was 335,062, Non-Fit index was 0.4, and Good data-model fit was indicated by RMSEA < 0.06, CFI > 0.95 (Xia & Yang, 2018). The discriminant

normality must based on Fornell Larcker criteria and Hetreotrait Monotrait ratio (Cheung & Wang, 2017).

This research's statistics result also tested discriminant validity by using both approaches. First, results in Table 5 show no issues related to the discriminant validity. In simple terms, the calculation showed that there was no relation between the correlations computed. Moreover, Hetreotrait-Monotrait ratio of Preferences in Sourcing Authorship is 0.591, AI Preferences in Use is 0.601, Proportion of ChatGPT Usage is 0.633, Preferences for Using ChatGPT for Writing Practicum Reports/Course Assignments/Scientific Articles is 0.758, and Preferences for Using ChatGPT for the thesis proposal and thesis writing is 0.609. Overall, the HTMT values for all constructs remain less than 0.85 (Rasoolimanesh, 2022), which indicates the measuring instrument has discriminant validity.

Table 3. Respondents' Characteristics

Constructs	CFA	AVE	Cutoff Value
Preferences in Sourcing Authorship	0.706 0.769 0.725	0.733	>0.7
AI Preferences in Use	0.619 0.721 0.735 0.792 0.691	0.711	>0.7
Proportion of ChatGPT Usage	0.683 0.725 0.779 0.698 0.763 0.774 0.694 0.711 0.849 0.663 0.646 0.630 0.698	0.945	>0.7
Preferences for Using ChatGPT for Writing Practicum Reports/Course Assignments/Scientific Articles	0.750 0.727	0.754	>0.7
Preferences for Using ChatGPT for the thesis proposal and thesis writing	0.730 0.713 0.786 0.752 0.772 0.726 0.790 0.835 0.712 0.761 0.772 0.752	0.77	>0.7

0.743
0.727
0.795
0.703
0.730
0.797
0.815
0.838
0.843
0.801
0.819

Table 4. Respondents' Characteristics

	Values
RMSEA	0.18
d_ ULS	3.392
d_ G	1.1
Chi-square	335.062
NFI	0.4

Table 5. Respondents' Characteristics

	R ²	Strength
Preferences in Sourcing Authorship	0.354	Moderat
AI Preferences in Use	0.411	Moderat
Proportion of ChatGPT Usage	0.661	Moderat
Preferences for Using ChatGPT for Writing Practicum Reports/Course Assignments/Scientific Articles	0.541	Moderat
Preferences for Using ChatGPT for the thesis proposal and thesis writing	0.533	Moderat

Table 6. Respondents' Characteristics

	Prefer- ences in Sourc- ing	AI Prefer- ences	ChatGPT Usage	Writing Practicum Re- ports/Course Assignments /Scientific Articles	ChatGPT for the thesis pro- posal and thesis writing	Rasio Het- reotrait- Mono- trait
Preferences in Sourcing Authorship	0.391					0.591
AI Prefer- ences in Use	0.499	0.571				0.601
Proportion of ChatGPT Us- age	0.543	0.601	0.780			0.633
Preferences for Using ChatGPT for Writing Practicum	0.512	0.591	0.726	0.799		0.758

Re-ports/Course Assign-ments/Scien-tific Articles Preferences for Using ChatGPT for the thesis pro-posal and the-sis writing	0.553	0.60	0.691	0.773	0.80	0.609
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Table 7. Respondents' Characteristics

Hubungan	β	t-statistics	P-value	Mean	SD	Confidence In-terval	
Sourcing Au-thorship → ChatGPT	0.291	3.276	0.000***	0.393	0.02	0.33	0.625
ChatGPT Us-age → the thesis pro-posal and the-sis writing	0.395	10.018	0.000***	0.425	0.031	0.655	0.827
ChatGPT Us-age → Writ-ing Practicum Re-ports/Course Assign-ments/Scien-tific Articles	0.747	10.644	0.000***	0.911	0.095	0.434	0.653

The R2 coefficient is determined before testing the structural models in current research the structural model in the current study. The R2 value produced by the empirical regression model estimation is extremely high, but individually many independent variables do not significantly affect the dependent variable (Achmad & Witiastuti, 2018). The value of coefficient (R2) ranges from zero and one ($0 < R2 < 1$). The small R2 value is small or close to zero, which means that the ability of the independent variables to explain the dependent variable is very limited (Chicco et al., 2021). The result shows a variance of 35.4% in Student Concerns, 41.1% in Ethical Perceptions, 66.1% in Student Views, 54%.1 and 53.3%. All in all, the predictor variables were found to have a moderate level of predictive power (See Table 6).

Lastly, in the hypothesis testing proven in Table 7, all variables were related. The existence of AI or so-called Artificial Intelligence has long been known by students, as many as 111 students from Indonesia and other countries such as Malaysia, the Philippines and Turkey said so. Most of them often write scientific papers but use AI assistance, one of which is ChatGPT. The presence of AI technology is a breakthrough in the field of educational technology to facilitate learning. Wise and controlled use of technology can accelerate education (Aristanto, 2023). In addition, the emergence of

artificial intelligence technology can also instill independence in students. Teachers are not burdened with such a dominant role, but their duties are more specific in the scope of providing enlightenment with substantive keywords.

This is the basis of any use of technology for teachers is to continue to prioritize the essence of teaching, namely the management of students' morals and behavior. As for students, the existence of educational technology can help them control and monitor their own learning, enabling them to live and work well in the future. However, the majority of students have concerns that the use of ChatGPT may cause a decrease in critical thinking skills because they are dependent on this AI technology that provides various information needs. As a result of Li's (2023) analysis, rather than banning the use of AI tools in education, it may be more beneficial to incorporate them into traditional teaching methods and revise guidelines regarding academic misconduct.

The existence of ChatGPT could benefit the education sector with its personalized and innovative teaching and learning methods. Previous research has shown that these models can help educators create instructional materials such as quizzes, tests, and worksheets (Abdelghani et al., 2022; Dijkstra et al., 2022; Gabajiwala et al., 2022). They can also help analyze student data, identify learning patterns, and generate valuable insights for refining teaching methods (Bernius et al., 2022). learning (Bernius et al., 2022) The use of ChatGPT in education has also raised potential concerns and risks (AlAfnan et al., 2023). Such as dependence on ChatGPT (Kasneci et al. 2023) issues of academic integrity, unfair assessment of unfair assessment of learning, and inaccurate information (Sok and Heng 2023). One concern is the ethical implications of ChatGPT's ability to write scientific essays (Mhlanga 2023), which may compromise the authenticity and originality of research.

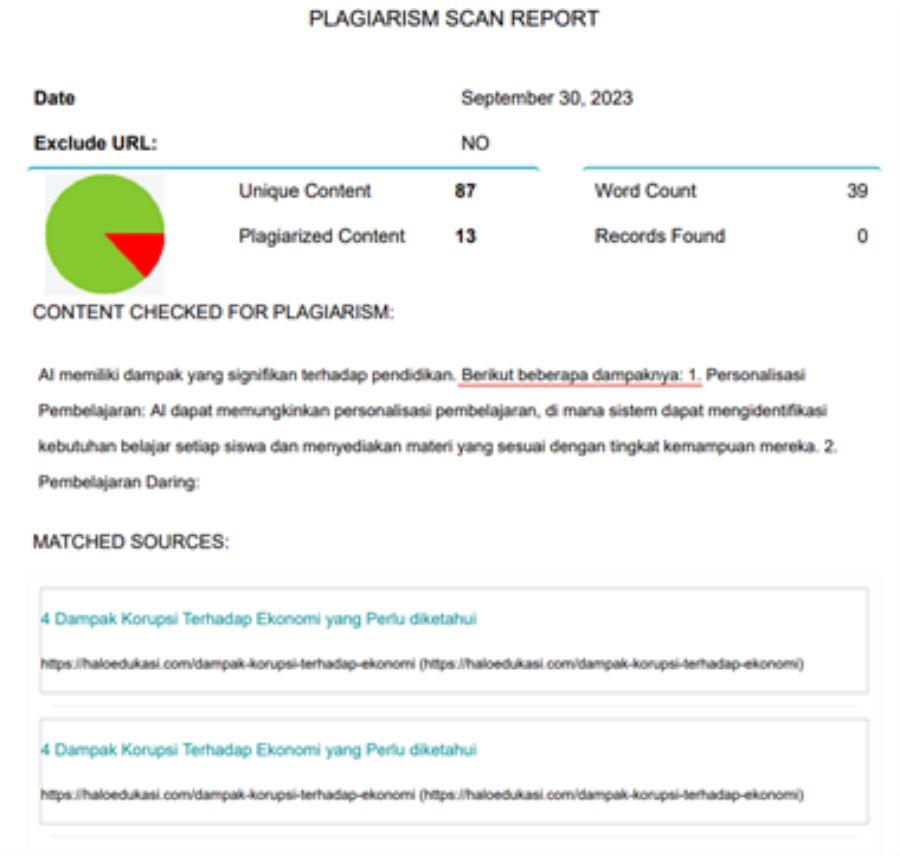


Fig. 1. Plagiarism Check Results of One of The Student Answers

Based on the results obtained, the use of AI-based applications, especially Chat GPT, is very helpful for students in completing their thesis proposals. There is positive feedback from the application of ChatGPT to improve students' writing skills as evidenced in the study Mahapatra (2024), which shows that the difference between the mean EG scores for pre-test, post-test and delayed post-test (12.581, 19.216 and 20.419) indicates the direction of improvement of students' writing skills. This claim is supported by the results of one-way ANOVA RM calculation. The results ($F [2, 72] = 330.704, p = 5.146e-37, \eta^2 = 0.902$) indicate significant differences between several means of the tests (Mahapatra, 2024). Based on the results of the collected student answers, only 11% of the samples taken have similar answers that are similar to each point. The results of checking plagiarism are also high at 13% (Figure 1). This is evidenced by the high level of interpretation of each question. As studied by Setiawan (2023) the reality was that ChatGPT allowed for the production of fairly scientific writing with prompts defined in the beginning with good technique and effectiveness. The existence of chatbots using ChatGPT has shown a positive effect in assisting humans, like solving problems, formulating ideas rapidly, and other conveniences offered by ChatGPT (Maulana, 2023). Based on the findings, ChatGPT offers precise

information to locate fitting subjects for proposing a thesis. Based on the findings, ChatGPT offers precise information to locate fitting subjects for proposing a thesis. Nonetheless, utilizing ChatGPT might result in dependence while constructing a thesis proposal. As reported by Maulana (2023), prolonged usage of ChatGPT can foster overreliance on it for creating thesis proposals.

Regardless of the positive and negative use of ChatGPT, its impact on writing thesis proposals is significant. According to Sholihatin's research (2023), the language generated by ChatGPT is considered to have standard and excellent vocabulary and grammar by most respondents. The majority of those who utilized ChatGPT in their thesis proposals no longer had to revise those parts (Dwivedi, 2023). While many users of ChatGPT have demonstrated sound judgment in utilizing the application, as evident by all search results generated through ChatGPT being reviewed with a supervisor, it remains regrettable that a considerable number of students still fail to rephrase the findings obtained from ChatGPT, which raises the risk of plagiarism (Mogavi, 2024).

The results of a study conducted by Črček (2022), also showed that more than half (81.9%) of the participants used ChatGPT for written assignments, most used it to generate ideas, while many also used it to summarize, paraphrase, proofread, and also write part of the assignment for them. Retrieved from the participants, the most ethically acceptable use of ChatGPT was for idea generation, while other uses were considered by many to be unethical. According to the survey, ChatGPT is advantageous in creating thesis proposals, but excessive utilization can impair one's writing and critical thinking skills. Most respondents suggest utilizing ChatGPT to aid in creating thesis proposals. Based on the available text, no revisions are necessary since it adheres to the given principles. The text is clear, concise, and objective, and it maintains a formal tone. The sentence structure shows a logical flow of information with no filler words, and the grammar and spelling are correct. Therefore, the improved version in American English would be: From this, we can know that the majority of international students are greatly helped by the ChatGPT application and this application has a significant impact on writing thesis proposals. Of course, writing scientific papers using AI such as ChatGPT still needs to be verified, because based on the research of Supriyadi (2022), who conducted a plagiarism test on scientific papers using ChatGPT and the results of the plagiarism rate reached 67%. There are potential negative aspects, ethical issues, and possible future applications of AI in education. In order to maximize the use of ChatGPT, it is essential to take advantage of the new technology while implementing limitations to prevent its misuse (Kamalov, 2023).

4 Conclusion

Using ChatGPT for education purpose helps and threatens educational integration. Introducing a practical guide, though, could aid decision making as well as the development of policy at educational institutes. ChatGPT usage helps the students in creating practicum reports, fulfilling assignments, and writing academic articles. Yet, there are concerns regarding possible negative impacts on critical thinking and over-dependence. Hence, it is recommended that students use ChatGPT for no more than 20% of their

writing to maintain a balance. According to the findings and discussion, the proper use of ChatGPT can be of great help in drafting thesis proposals, although there are associated risks such as a much higher rate of plagiarism.

Most of the respondents found ChatGPT to be a valuable tool in generating proposal topics, finding information, and speeding up the thesis proposal writing process. Hence, it could be inferred that the ChatGPT is a helpful app to write a thesis proposal but students must establish and sustain the balance between leveraging the Artificial Intelligence technologies for education purpose and ensure the ethical practice of encouraging the critical thinking, creativeness, as well as the integrity of the students.

For future research, it is expected that Researchers should aim to address the needs of international students. Then to be can analyze more deeply for testing students' critical thinking skills.

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