

## ENGLISH AS FOREIGN LANGUAGE (EFL) STUDENTS' PERCEPTION OF AI WRITING TOOLS BASED ON THEIR EDUCATION LEVEL

by

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### Abstract.

*EFL students at any level of education are nowadays accustomed to using AI tools to support their English learning. They also use it during academic writing. Understanding the perception is therefore important to optimize the use of AI writing tools. The existing literature suggests that there are contrasting perceptions among students. Hence, this study aims to uncover the perceptions and uses of AI writing tools used by EFL students from different levels of education, which are undergraduate and master's degree. This study utilized a mixed method combining surveys and interviews to answer research questions. The result suggests that the difference lies in the varieties of tools used by each level of education. Master's degree tends to use more diverse AI writing tools compared to the undergraduate. As for the perception, both levels perceived AI writing tools positively. Suggestions for further studies are also presented in the last section. This study contributes to the developing area of AI in education and provides insight on how different levels of education utilize AI writing tools.*

**Keywords:** Artificial Intelligence (AI) writing tools, EFL students, master's degree, undergraduate, perception

### Abstrak.

*Siswa EFL di semua tingkat pendidikan saat ini sudah terbiasa menggunakan alat bantu AI untuk mendukung pembelajaran bahasa Inggris mereka. Mereka juga menggunakannya selama penulisan akademis. Oleh karena itu, memahami persepsi penting untuk mengoptimalkan penggunaan alat bantu menulis AI. Literatur yang ada menunjukkan bahwa ada persepsi yang kontras di antara para siswa. Oleh karena itu, penelitian ini bertujuan untuk mengungkap persepsi dan penggunaan alat bantu menulis AI yang digunakan oleh mahasiswa EFL dari berbagai tingkat pendidikan, yaitu sarjana dan master. Penelitian ini menggunakan metode*

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*campuran yang menggabungkan survei dan wawancara untuk menjawab pertanyaan penelitian. Hasilnya menunjukkan bahwa perbedaannya terletak pada jenis alat yang digunakan oleh masing-masing tingkat pendidikan. Mahasiswa master cenderung menggunakan alat penulisan AI yang lebih beragam dibandingkan dengan sarjana. Sedangkan untuk persepsi, kedua tingkat pendidikan mempersepsikan alat bantu penulisan AI secara positif. Saran untuk penelitian lebih lanjut juga disajikan di bagian terakhir. Penelitian ini berkontribusi pada bidang pengembangan AI dalam pendidikan dan memberikan wawasan tentang bagaimana tingkat pendidikan yang berbeda memanfaatkan alat penulisan AI.*

**Kata kunci:** Mahasiswa EFL, persepsi, alat bantu, menulis kecerdasan buatan (AI), sarjana, master

## INTRODUCTION

Writing is one of the essential skills in language and it is thought to be the hardest skill in any language, including English. Prasetyaningrum et al., (2022) stated that students had difficulty in grammatical cohesion while writing their thesis. In addition, Ningrum et al., (2023) emphasized that students found writing difficult, especially in paraphrasing and cohesion.

Therefore, students nowadays can seek help from Artificial Intelligence (AI) to create more eloquent writing. There are quite a lot of AI tools which are used for writing assistance. As suggested in Marzuki et al., (2023) the AI writing tools that usually used were Grammarly, Quillbot, Word Tune, Jenni, and GPT-3 (known as Chat GPT). They were found to have positive impact on students' writing skills as these writing tools used complex algorithms to detect errors in grammar, punctuation, even in syntax. They also provided feedback on clarity and writing style. Grammarly was able to analyze written text then provided useful feedback on grammar, spelling, punctuation, clarity, engagement, delivery and plagiarism detection (Miranty & Widiati, 2021; Marzuki et al., 2023). Moreover, Grammarly was perceived as easy to use by EFL students (Wulyani et al., 2024). Thus, many students were willing to use the tool. Meanwhile, Quillbot usually dealt with paraphrasing to avoid plagiarism in writing. Then, the WordTune concerned on refining the tone and style of the text. The next popular writing tool was Jenni which provided suggestion that could assist writers in composing emails, report, and other documents. The recent GPT-3 also provided assistance on developing ideas in writing (Marzuki et al., 2023). Another AI, which is CAMI AI, has shown to be useful in improving students' writing. Muslimin et al., (2024) conducted an experiment incorporating CAMI AI in

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their class, the result suggested that the scores were improved during the post test.

When the functions of AI writing tools seem to be helpful in enhancing writing, Al-Raimi et al., (2024) stated that there is a need for addressing the users' perception, in this case, students in EFL context, to obtain a holistic view of the usefulness of these AI writing tools. Previous studies suggested that EFL students generally had positive perceptions about AI writing tools. One of tools, Quillbot, received many positive views from the students. They considered Quillbot was beneficial for improving the content, minimizing grammatical errors, enhancing language usage, paraphrasing, improving students' positive writing attitude, and offering user-friendly writing features (Kurniati & Fithriani, 2022; Syahnaz & Fithriani, 2023; Amanda et al., 2023). Armanda et al. (2022) investigated how students perceived Grammarly as their writing assistant. In general, students also demonstrated a positive view of Grammarly as it could check their grammatical and stylistic errors. Dewi (2023) also stated that Grammarly could flexibly provide feedback on errors in grammar, punctuation, spelling, and word choices at any time and anywhere. This AI writing tool also offered direct comprehensive feedback, error notifications, and suggestions regarding the errors (Miranty & Widiati, 2021). From the point of view of teachers, Grammarly is seen as useful and effective in evaluating students' work (Miranty et al., 2021). However, those previous studies only covered a single AI writing tool, while Marzuki et al. (2023) stated that EFL students used various AI writing tools. Therefore, this study aims to reveal the EFL perceptions toward diverse AI writing tools they use in writing.

Although there are many positive perceptions toward AI writing tools, some studies also showed students' negative perceptions of AI writing tools. Amanda et al. (2023) stated that students noticed that Quillbot sometimes produced nonsensical sentences since it was a machine that had limitations. Another study also demonstrated negative students' perceptions of AI although they were fewer compared to the positive sides. Enzelina et al. (2023) noted that using AI was not really effective in learning English, not really improving their learning personality, and students still needed accurate instructions from lecturers in using AI. Acknowledging these contrasting previous findings, it is strongly urged that this research be conducted to deeply understand the students' perception regarding AI.

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The previous studies about students' perception of AI writing tools were mostly conducted in one group of participants while the study that involved more than one group was limited. Miranty and Widiati, (2021) stated the students' perceptions of Grammarly from different cohorts but at the same level of education. They stated that there was no significant difference among the three different cohorts. However, they noted that there was a difference in the frequency of using Grammarly. This suggests the need for further investigation involving various background of participants. Therefore, this study aims to view EFL students' perception of AI writing tools based on their levels of education which are undergraduate and master's degrees. This is intended to understand possibly different perceptions in using AI writing tools because as master's students, they are compelled to write more academic writing compared to undergraduate students. Thus, this study might later give useful insight for the lecturer to differentiate in scaffolding students during writing classes. Based on the background of the study mentioned above, the research questions are formulated as follows :

1. How do EFL students of undergraduate and master's degree utilize AI writing tools?
2. Is there any significant difference between EFL students of undergraduate and master's degree in perceiving AI writing tools?

## **METHOD**

### ***Design***

This study employed an explanatory mixed methods approach to answer the research questions. This approach allowed us to have qualitative data to explain the initial quantitative result (Creswell & Clark, 2007). So, we collected **quantitative data first, then the qualitative data**. There are two models of the explanatory mixed method: follow-up explanation model and participant selection model (Creswell & Clark, 2007). This study utilized the follow-up explanation model, which facilitated us to identify the result of the quantitative data first, then gather qualitative data based on the result of the quantitative. These qualitative data are used to support prominent data in quantitative phase (Zumbrunn et al., 2016)

### ***Participant***

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The participants in this study were undergraduate students and master's students of the English major. The total number of students who participated in this pilot study was twenty four (see Table 1), comprised of six undergraduate and eighteen master's students. The selection of participants was based on purposive sampling. Purposive sampling selects participants intentionally based on some criteria that are related to a certain phenomenon (Robinson, 2014).

*Table 1. Participants of the survey*

<i>The number of participants (n)</i>	<i>Level of Education</i>	<i>Length of time using AI</i>
18	Master's degree	1- more than 1 year
6	Undergraduate	1- more than 1 year

In this study, the participants needed to have at least one year of experience in using AI writing tools. For undergraduate students, they needed to have at least completed the subject of Academic Essay. The participation in this research was voluntary, which meant participants were allowed to withdraw from the research, and they could leave some questions blank if they did not want to answer. The participants were also allowed to fill out the survey at any time and anywhere based on their convenience because the survey was conducted online. After that, some students representing each level of education were randomly selected to join semi-structured interviews. The undergraduate student was labeled as S1 and the master's student was labeled as S2.

### ***Instrument***

There were two instruments used to collect data. **The first instrument was a questionnaire.** The questionnaire utilized Google Forms to provide flexibility for the participants. The first page consisted of the title and aim of the research. It also had consent which needed to be read prior to filling the survey. The second page was about the length of time they had utilized AI writing tools and also types of the AI writing tools that they usually used. The third and fourth pages contained questions regarding how they perceived AI and their own writing skills, and their perception of AI writing tools' usefulness. The questionnaire items

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were adapted from Cavaleri & Dianati, (2016) and Aljohani (2021) (see Table 2). The items were modified based on previous studies and translated them into Bahasa Indonesia to ease the participants in answering the questions. The type of questions is like-rt scale ranging from strongly disagree (1), disagree (2), neutral (3), agree (4), to strongly agree (5). There was also an open-ended question in the last section to cover the use of AI, which had not been mentioned in the survey. The validity and reliability of the instruments were tested using SPSS.

**Table 2. Survey items and sources of adaptation**

<i>Variables</i>	<i>Survey Items</i>	<i>Source</i>
<i>AI tools and writing</i>	- <i>Whenever I have a writing task, I always use AI writing tools to help me.</i>	<i>Cavaleri &amp; Dianati, (2016) and Aljohani (2021)</i>
	- <i>I use AI writing tools at least three times a week.</i>	
	- <i>I use AI writing tools every day.</i>	
	- <i>I am not confident writing in English.</i>	
	- <i>I am not confident about grammar when writing in English.</i>	
	- <i>I understand English grammar, but I have difficulty expressing my ideas.</i>	
	- <i>I am not confident in organizing ideas in my writing.</i>	
	- <i>I have a problem in paraphrasing</i>	
<i>The use of AI tools</i>	- <i>Artificial Intelligence brings positive impact in English learning especially writing.</i>	<i>Cavaleri &amp; Dianati, (2016)</i>
	- <i>Artificial Intelligence gives understandable feedback.</i>	
	- <i>Artificial Intelligence helps me to paraphrase text.</i>	
	- <i>Artificial Intelligence helps me in brainstorming ideas.</i>	
	- <i>Artificial Intelligence helps me write faster.</i>	
	- <i>Artificial Intelligence makes writing process more fun compared to traditional way.</i>	
	- <i>Artificial Intelligence makes me confident of my writing.</i>	
	- <i>I suggest the use of AI in English writing especially in academic field.</i>	

The Pearson coefficient values of nineteen items are above the r table (0.423) with significance value 0,05 (two-tailed). However, this pilot study showed that there were two invalid items. It might be due to the number of participants. Therefore, the two items were removed from the results section and the remaining 16 items were presented. For the reliability, the Cronbach’s Alpha value was .869 for AI and writing and .802 for AI usefulness. It could be concluded that the questionnaire was valid and reliable.

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**The second instrument was a list of semi-structured interview questions.** Since this study utilized explanatory sequential model, the questions were actually follow-ups from the results of the survey (Creswell, 2013). They were also derived from previous related studies. The number of participants in this phase were equal both from undergraduate and master students to provide a balanced view and avoid bias. The examples of questions were “Why do you choose to use particular AI writing tools more often than other tools?”, “In which stage of writing that you are using AI writing tools?”, “Why do you recommend/not recommend AI writing tools in academic setting?”

### ***Data collecting technique***

The data collection process was divided into two phases. The first one was quantitative phase. The data are collected through a Google form. The link was distributed through social media to reach participants easily. In the cover of the survey, it was noted that there were some criteria for suitable participants which were undergraduate students of the English department who had at least taken subject Academic Essay, and master's students of the English department.



***Figure 1. The process of data collection***

The second phase was qualitative. It was in the form of a semi-structured interview. The interview was conducted based on the convenience and availability of the participants. The student from undergraduate study was labeled by S1 and the student from master's degree was labeled by S2. It was conducted by phone in Bahasa Indonesia to make it easier to deliver the participants' point of view. There were several stages in the interview as stated in Marzuki et al., (2023). First, before starting the interview, participants were informed about the consent, aims, and significance of the study. The second stage was conducting the interview by asking general questions about their experience using AI writing tools and the variety of AI that they usually used. The next stage was asking several questions related to the result of the quantitative

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phase. We emphasized that there was no right or wrong in their answer. During the interview, we asked permission to record and took notes on some important points. Finally, at the end of the interview, we thanked them for joining the interview.

### ***Data analysis technique***

After ensuring validity and reliability, the descriptive analysis was performed using SPSS to understand the mean and standard deviation of each item based on the levels of education. The data were grouped based on their education level to see whether there was a different perception about AI writing tools. The inferential statistic, which was the independent t-test, was performed to reveal the significant value of the dependent variable (perception of AI) and independent variable (levels of education).



***Figure 2. The process of data analysis***

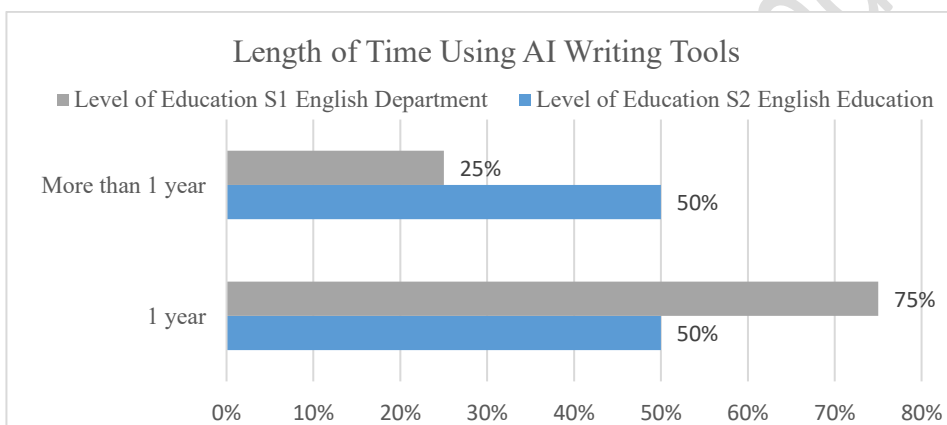
As for the qualitative data, which were in the form of recordings, they were transcribed carefully using the website mygoodtape. Then the transcribed data were double-checked to ensure the accuracy of transcription. The next step was data analysis using thematic analysis to understand the common themes or patterns presented in the data. According to Braun and Clarke (2021), there are six steps in conducting thematic analysis. The first one is transcription, familiarizing with data and selecting quotes. At this stage, repeatedly reading the transcript is essential to obtain comprehensive data. The next step is to select some keywords to be used as a basis for the following step which is coding. In coding, important keywords are categorized into some words or phrases. After creating some codes, they are organized to build some meaningful themes. The fifth step is to interpret keywords, codes, and themes into some concepts that are in-line with the research. Finally, develop conceptual findings from the data to answer research questions.

**RESULT AND DISCUSSION**

**Result**

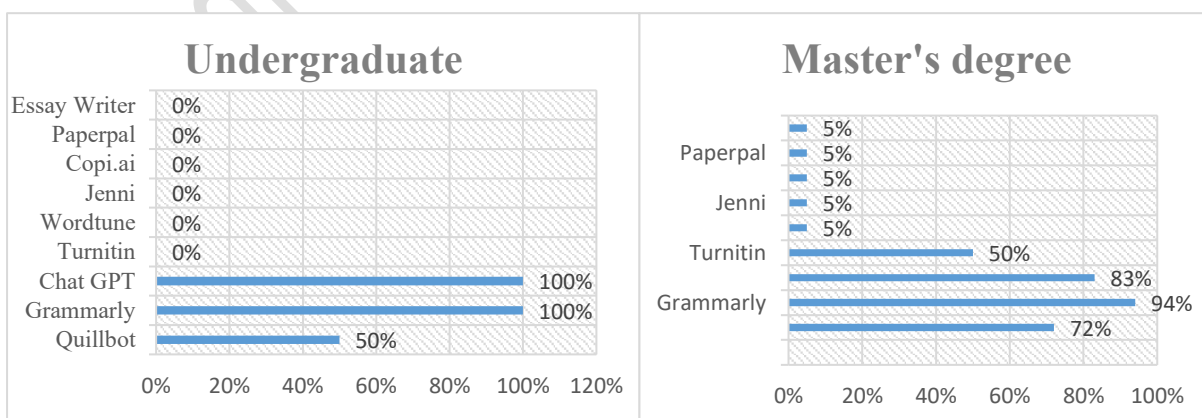
**RQ1: Utilization of AI writing tools by EFL students of undergraduate and master's degree**

Based on Figure 3, the length of time used by students across levels is quite varied. There are 75% of undergraduate participants have utilized AI writing tools for one year. While the remaining have used AI writing tools for more than a year. For the master degree, the data show that 50% of them used AI for one year and another 50% have employed AI writing tools for more than a year.



**Figure 3. Length of time using AI writing tools**

As for the AI writing tools that participants have used are also varied. From Figure 4, it can be stated that master degree students have utilized more varied AI writing tools (nine variations) compared to undergraduate students (three variations).



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**Figure 4. Varieties of AI writing tools used by undergraduate students and master's degree students**

Both of education levels have frequently used Grammarly and Chat GPT to help them with writing. For undergraduate participants they used Chat GPT (100%), Grammarly (100%), and Quillbot (50%). For master's participants, 94% have employed Grammarly, Chat GPT (83%), Quillbot (72%), Turnitin (50%), Essay Writer (5%), Paperpal (5%), Copi.ai (5%), Jenni (5%), Wordtune (5%). It is interesting to see that master's students use more diverse AI writing tools. It might be due to the fact that half of them use AI for more than a year compared to undergraduate students who mostly use it around one year.

Furthermore, from the interview, there is a difference between undergraduate student and master's student in the AI writing tool which used the most by them. Based on the interview data, for undergraduate, it shows that Grammarly is used the most. While the master's student is ChatGPT. This demonstrates that S1 focuses more on grammar and accuracy of his writing compared to S2 who puts more concern over the organization of ideas in writing.

The different platforms mainly used by participants from different levels of education may be caused by the challenges they face during writing. It can be seen in Table 3 that undergraduate participants are not confident about grammar ( $M = 3.16$ ) while another group tends to less agree about it ( $M = 2.83$ ). The first group also has problems in expressing their ideas in writing ( $M = 3.50$ ) and paraphrasing ( $M = 3.50$ ). Meanwhile, the table demonstrated that the problem master's students faced in writing is expressing ideas ( $M = 3.05$ ) although the mean is lower compared to undergrads. During the interview, the participants also mentioned different types of challenges when writing in English. For S1, he tends to have difficulties in organizing ideas, accuracy and coherence of his writing. Meanwhile, for S2, the challenges are developing ideas, overcoming writing block, structuring the text, inserting writer's voice, and outlining.

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**Table 3. Participants' perception about AI and their writing**

<i>Statements</i>	<i>Undergraduate</i>		<i>Master's</i>	
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
<i>Whenever I have a writing task, I always use AI writing tools to help me.</i>	3.50	1.22	3.22	1.16
<i>I use AI writing tools at least three times a week.</i>	3.33	1.21	2.88	1.18
<i>I use AI writing tools every day.</i>	2.00	.89	2.38	1.24
<i>I am not confident writing in English.</i>	3.00	1.26	2.77	1.16
<i>I am not confident about grammar when writing in English.</i>	3.16	1.32	2.83	1.20
<i>I understand English grammar, but I have difficulty expressing my ideas.</i>	3.50	1.04	3.05	1.21
<i>I am not confident in organizing ideas in my writing.</i>	3.16	1.32	2.88	.90
<i>I have a problem in paraphrasing.</i>	3.50	1.22	2.72	1.31

Table 3 shows that undergraduate students are more likely to use AI writing tools when they do their writing assignment ( $M = 3.50$ ) compared to master degree students although the difference is not really significant. All of the participants disagree that they use AI writing tools every day. So, it means that they only use them when necessary. The first group tends to choose neutral in perceiving their confidence in English writing ( $M = 3.0$ ). Meanwhile another group tends to be more confident ( $M = 2.77$ ).

To gain in-depth understanding about utilization of AI writing tools, the interview also covered the questions about experience in using the tools. It turns out that they use different platforms for different purposes. The data is presented in the table 4.

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Table 4. Utilization of AI writing tools (interview data)

<i>AI writing tools</i>	<i>Education Level</i>	<i>Utilization</i>
<b>Grammarly</b>	Undergraduate	-Check the grammar and spelling -Give feedback about sentence structure
<b>Chat GPT</b>	Undergraduate	- Ask about ideas or <u>topic</u> - Ask opinion
	Master's degree	-Write an outline of text -Ask about appropriate title of topic
<b>Quillbot</b>	Undergraduate	-Paraphrasing -Synonym

Table 4 shows that there is a similarity in using ChatGPT. Both of the participants use ChatGPT to ask about ideas or title of topic. On the other side, there are quite differences in the way they use AI writing tools. The undergraduate student relies more heavily to AI writing tools compared to master student. However, this statement is only derived from a small amount of data. Further research with larger data is needed to confirm this.

**RQ2 The perception of EFL students of undergraduate and master degree towards AI writing tool**

From Table 5, generally, both group of participants find AI writing tools useful to help them in writing process and they bring positive impact in learning (M = 4.16) and (M = 3.88). Even undergraduate students perceive that AI can be beneficial in giving understandable feedback (M = 4.16), providing feedback on grammar mistakes (M = 4.16), paraphrasing (M = 3.83), and brainstorming some ideas (M = 3.83). Meanwhile, the master students, consider AI useful in giving understandable feedback (M = 3.94) and check their grammatical mistakes (M = 3,94). They also somewhat agree (M = 3.88) that AI can make writing process faster while undergraduate students are in the middle between neutral and agree for that statement (M = 3.50).

<i>Statements</i>	<i>Undergraduate</i>	<i>Master's degree</i>	<i>Independent t-test</i>

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	Mean	SD	Mean	SD	t	df	Sig. (2-tailed)
<i>Artificial Intelligence brings positive impact in English learning especially writing.</i>	4.16	.40	3.88	.83	-1.08	18.19	0.295
<i>Artificial Intelligence gives understandable feedback.</i>	4.16	.40	3.94	.80	-0.88	17.59	0.390
<i>Artificial Intelligence helps me to paraphrase text.</i>	3.83	.98	3.77	.87	-0.12	7.85	0.905
<i>Artificial Intelligence helps me in brainstorming ideas.</i>	4.00	.63	3.83	.98	-0.48	13.72	0.639
<i>Artificial Intelligence helps me write faster.</i>	3.50	1.22	3.88	1.02	0.70	7.48	0.505
<i>Artificial Intelligence makes writing process more fun compared to traditional way.</i>	3.66	1.03	3.55	1.09	-0.22	9.09	0.827
<i>Artificial Intelligence makes me confident of my writing.</i>	4.00	1.09	3.77	.94	-0.44	7.64	0.669
<i>I suggest the use of AI in English writing especially in academic field.</i>	4.0	.63	3.38	1.14	-1.64	16.20	0.121

The undergraduate students agree that AI writing tools can boost confidence in their writing (M = 3.88) whereas another group somewhat agrees (M = 3.77) about that. This is also supported by interview data. S1 stated that he gains more confidence in writing when there is a tool like Grammarly when he writes.

Table 5. Participants perception about the AI writing tools and independent t-test

*“AI just like Grammarly indirectly boosts confidence when we have [something] to check our writing”- S1*

The last, the undergraduate students all agree (M = 4.0) that AI usage is suggested in academic field while the master students have more neutral standing (M = 3.38). From interview data, S1 stated that AI is recommended as long as it is balanced between the use and critical

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thinking of writers. S2 also shared a similar opinion, she noted the importance of being adaptive in this digital era.

In order to understand whether there is a significant difference of perceptions toward AI between undergraduate and master's students, the independent t-test was performed using SPSS. It is demonstrated in Table 5 that all of the significance value is above 0,05. It means that there is no significant different in perception of AI usefulness between different levels of education.

### ***Drawbacks of AI writing tools***

Apart from the positive perceptions, as AI users, they also recognized the drawbacks of AI writing tools. S1 stated three weaknesses possessed by AI. The first one is irrelevant feedback. Sometimes, the feedback given concerning word choice is not related to the context of the topic, thus the users need to rethink and find other words. Second, when relying too much on AI, it will pose a danger of plagiarism because AI cannot give reference and AI also do not have access to international journal. The last one is about understanding human emotion. AI cannot comprehend emotion just like what humans can do.

### ***Advice in utilization of AI writing tools***

Based on interview data, both levels of education gave useful advice when using AI writing tools. S1 noted that intellectual capacity and also critical thinking are needed when dealing with AI writing tools. Because the writing ideas are actually from humans, not from AI. As from S2, the AI users need to be creative and treat AI like a tool, not the main source. Because all the feedback given by AI cannot be just copied and pasted but it needs to be filtered which one is suitable and which one is not.

### ***Discussion***

This study investigated the perceptions of AI writing tools based on the level of education, which is undergraduate and master's degree. There are two main questions answered in the results section. The first one is about the utilization of AI writing tools in both levels of education. The results demonstrated that there is a difference in the varieties of AI used by

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different levels of education. The higher level of education uses more varied tools compared to the undergraduate level. This might be caused by more challenges faced by master's degree students as it is mentioned in . the finding. It is in-line with the previous study by Kurniati and Fithriani (2022) that stated master's students used various digital writing tools such as Turnitin, Mendeley, Quillbot, and Grammarly and the difference lied in the most frequently used tools. In previous study, the most used was Quillbot (Kurniati & Fithriani, 2022). Interestingly, in this study, the master's students mostly used Grammarly and ChatGPT. This might be due to the fact that ChatGPT 3.5 was just released on 4th December 2022 (Pusti, 2023). The previous study was published in December 2022. So, at that time, it was not as popular as nowadays.

The results also show that undergraduate and master's use some AI writing tools for different purposes (see Table 2). Grammarly is used by undergraduate students to provide grammatical feedback and sentence structure. This finding supports the previous claim that Grammarly is a useful tool to give feedback on grammar, writing style, and word choice (Armanda et al., 2022; Dewi, 2023; Miranty & Widiati, 2021). Another tool, ChatGPT, is used by undergraduate students to ask about opinions, ideas, or topics. Similarly, another group uses ChatGPT to ask for suggestions about topics and help them write outlines.

*“ In the first semester, maybe, we surely struggled to **organize ideas** we want to write...how we **manage accuracy and coherence** in our writing”- S1*

*“ Ideas, **the first one is ideas**, [I experience] **writing block** too. Then, [to create] a good **structure**. The most complicated or difficult is **inserting our voice** ,our standing position...Yes, [creating outline] is quite a bit complicated. Because we need focus, I mean, [the writing] to not to go anywhere, we need to write **an outline**, it's important.”*  
– S2

These functions were also stated in the previous research by Harunasari et al., (2023) that ChatGPT helped EFL students to form ideas and also give grammatical feedback. The finding also aligns with the previous study by Dewi (2024), that stated university students used Chat GPT to help them generate some ideas. Meanwhile, for Quillbot, the undergraduate students state that they use it to paraphrase and find synonyms. This finding is similar to the previous studies regarding the use of Quillbot (Kurniati & Fithriani, 2022; Syahnaz & Fithriani, 2023; Amanda et al., 2023)

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The second research question was about whether levels of education can affect the perceptions of AI writing tool usefulness. The finding shows that there is no significant difference among the students regardless of their education levels. All of the undergraduate and master's students perceive AI writing tools as having positive impacts on their writing. This finding also confirms the result of the previous study conducted by Miranty and Widiati (2021), that there was no significant difference in perception of EFL university students across the different cohorts about Grammarly. But, the previous study was only limited to perception of Grammarly. It is different compared to this study which covers the perception toward all AI writing tools.

The notable findings in this study related to the responsible use of AI writing tools. In the following excerpt, S1 emphasized that balancing their own thinking and AI was prominent. S2 further stated that students needed to be adaptive to the era where technology was fast-growing. These are aligned with the study by (Sarinauli & Syahmidi, 2024), which stated that balanced approach and adaptation were needed in the use of AI writing tools.

*“From my personal view, **it is suggested** but we still need to balance it, between our thinking and the AI usage” – S1*

*“So, it needs to be **balanced** between suggestions or feedback and our critical review from us regarding what we write. Because, nevertheless, **the ideas that we write are actually from us** ... We should also include our **intellectual capacity** while using AI”- S1*

*“**Yes**, now what we want to achieve in writing? It is to achieve good writing for our students, right? Now the era needs to **be adaptive**, we need to adjust to this modern era, and everything can be eased, can be accessed” – S2*

At last, the findings suggest that students need to consider AI as tool which act as supporting media instead of the only source of writing. This confirms the study by Xue (2024), which discussed the ideal use of AI, such as Chat GPT, in assisting training on writing. It was stated that Chat GPT could be used to support students by providing examples and accurate feedback.

*“The suggestion is let's consider AI as a **tool**, not source,..but when we make them as tool, they just help us... There are some that we can take, and there are some that we cannot take. So, we need to pay attention to guidelines. **Be creative**”- S2*

## CONCLUSION AND SUGGESTION

### ***Conclusion***

To write a good academic paper, today's university students frequently use AI writing tools. This study outlines the different usage of various AI writing tools utilized by EFL undergraduate and master's degree levels. Many challenges faced by the master's degree level during writing might contribute to the usage of more varied AI writing tools compared to undergraduates. These results can be a useful insight for teachers in providing scaffolds to help students with academic writing. Then, this study also contributes to support previous studies stating that EFL students perceived AI writing tools positively and no significant different perception across the different levels of education.

This research also noted some drawbacks during the use of AI writing tools. The first one is sometimes AI gives irrelevant feedback. The second drawback is when relying too much on AI writing tools, it can increase the chance of plagiarism. The last is AI cannot understand human emotions. Thus, it cannot replace teachers' position.

### ***Limitation***

Since this is a pilot study, there are some limitations that need to be addressed in further research. The limited participant is the first limitation from this study. The bigger number of participants is needed to yield more comprehensive results. The criteria of participant also need to be more specified. This research involved only undergraduate and master's degree without any specific cohort. Most of the undergraduate participants in this study were in 7th semester, while the master's degrees, they are on the first semester of study. The questionnaire used in this research was five Likert scale, which yielded some neutral stances. It is recommended to use four Likert scale instead to make results clearer.

### ***Implication***

This study has presented a discussion about how EFL students from different levels of education perceive and use AI writing tools. This is beneficial to add a new perspective to the

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body of knowledge of the growing field, AI in education, especially related to academic writing. This study also provides a valid and reliable instrument that can be adapted for further study.

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## REFERENCES

- Aljohani, R. A. (2021). Teachers' and students' perceptions of the impact of artificial intelligence on English language learning in Saudi Arabia. *Journal of Applied Linguistics and Language Research*, 8(1).  
<https://www.jallr.com/index.php/JALLR/article/view/1156>
- Al-Raimi, M., Mudhsh, B. A., Al-Yafaei, Y., & Al-Maashani, S. (2024). Utilizing artificial intelligence tools for improving writing skills: Exploring Omani EFL learners' perspectives. *Forum for Linguistic Studies*, 6(2).  
<https://doi.org/10.59400/fls.v6i2.1177>
- Amanda, A., Sukma, E. M., Lubis, N., & Dewi, U. (2023). QuillBot as an AI-powered English writing assistant: An alternative for students to write English. *Jurnal Pendidikan dan Sastra Inggris*, 3(2), 188–199.  
<https://doi.org/10.55606/jupensi.v3i2.2026>
- Cavaleri, M., & Dianati, S. (2016). You want me to check your grammar again? The usefulness of an online grammar checker as perceived by students. *Journal of Academic Language & Learning*, 10(1), A223–A236.  
<https://www.researchgate.net/publication/320618419>
- Dewi, F. (2024). The inception of ideas: How students use ChatGPT for academic writing. *Jurnal Sositologi*, 23(2), 291–304.  
<https://doi.org/10.5614/sostek.itbj.2024.23.2.10>
- Dewi, U. (2023). Grammarly as automated writing evaluation: Its effectiveness from EFL students' perceptions. *Lingua Cultura*, 16(2), 155–161.  
<https://doi.org/10.21512/lc.v16i2.8315>
- Enzelina, Y. N., Santosa, M. H., & Paramartha, A. A. G. Y. (2023). Exploring English language education major university lecturers' and students' perceptions of AI-based applications in post-pandemic learning. *SALEE: Study of Applied Linguistics and English Education*, 4(2), 487–502. <https://doi.org/10.35961/salee.v4i2.843>
- Harunasari, S. Y., & Tinggi, S. A. B. (2023). Examining the effectiveness of an AI-integrated approach in EFL writing: A case of ChatGPT. *International Journal of Progressive Sciences and Technologies*, 39(2), 357–368.  
<https://ijpsat.org/index.php/ijpsat/article/view/5516/3447>
- Kurniati, E. Y., & Fithriani, R. (2022). Postgraduate students' perceptions of QuillBot utilization in English academic writing class. *Journal of English Language Teaching and Linguistics*, 7(3), 437–450. <https://doi.org/10.21462/jeltl.v7i3.852>

*Annishah et al. (2025)*

- Laudy Armanda, M., Nugraheni, A. F., Wulansari, A., & Imron, A. (2022). Grammarly as English writing assistant from EFL students' perspective. *ENGLISH EDUCATION: JOURNAL OF ENGLISH TEACHING AND RESEARCH*  
<https://doi.org/10.29407/jetar.v7i2.17988>
- Marzuki, W., Widiati, U., Rusdin, D., Darwin, & Indrawati, I. (2023). The impact of AI writing tools on the content and organization of students' writing: EFL teachers' perspective. *Cogent Education*, 10(2), 2236469.  
<https://doi.org/10.1080/2331186X.2023.2236469>
- Miranty, D., & Widiati, U. (2021). Automated writing evaluation (AWE) in higher education: Indonesian EFL students' perceptions about Grammarly use across student cohorts. *Pegem*, 11(4), 126–137. <https://doi.org/10.47750/pegegog.11.04.12>
- Miranty, D., Widiati, U., Cahyono, B. Y., & Sharif, T. I. S. T. (2021). The effectiveness of using Grammarly in teaching writing among Indonesian undergraduate EFL students. <https://www.atlantis-press.com/proceedings/isolec-21/125965733>
- Muslimin, A. I., Mukminatien, N., & Ivone, F. M. (2024). Evaluating Cami AI across SAMR stages: Students' achievement and perceptions in EFL writing instruction. *Online Learning Journal*, 28(2). <https://doi.org/10.24059/olj.v28i2.4246>
- Ningrum, R. W., Hamamah, H., Sahiruddin, S., & Rohmah, Z. (2023). Academic writing difficulties for Indonesian students in pursuing postgraduate studies abroad. *Premise: Journal of English Education*, 12(1), 93–107. <https://doi.org/10.24127/pj.v12i1.5271>
- Prasetyaningrum, A., Asrobi, M., Surayya, S. A., & Fikni, Z. (2022). Grammatical cohesion in students' undergraduate thesis. *Premise: Journal of English Education*, 11(2), 297–310. <https://doi.org/10.24127/pj.v11i2.4744>
- Pusti, K. (2023, February 10). Dibalik teknologi ChatGPT. Universitas Telkom Surabaya. <https://surabaya.telkomuniversity.ac.id/dibalik-teknologi-chatgpt/>
- Robinson, R. S. (2014). Encyclopedia of quality of life and well-being research. In *Encyclopedia of quality of life and well-being research* (pp. 1–6). *Springer*.  
<https://doi.org/10.1007/978-94-007-0753-5>
- Sarinauli, B., & Syahmidi, H. (2024). AI writing tools in the classroom: Investigating usage, challenges, and adaptations by rural English teachers. *Premise: Journal of English Education and Applied Linguistics*, 13(3). <https://doi.org/10.24127/pj.v13i3.10914>
- Syahnaz, M., & Fithriani, R. (2023). Utilizing artificial intelligence-based paraphrasing tool in EFL writing class: A focus on Indonesian university students' perceptions. *Scope*:

*Annishah et al. (2025)*

*Journal of English Language Teaching*, 7(2), 210–222.  
<https://doi.org/10.30998/scope.v7i2.14882>

- Wulyani, A. N., Widiati, U., Muniroh, S., Rachmadhany, C. D., Nurlaila, N., Hanifiyah, L., & Sharif, T. I. S. T. (2024). Patterns of utilizing AI-assisted tools among EFL students: Need surveys for assessment model development. *LLT Journal: Journal on Language and Language Teaching*, 27(1), 157–173. <https://doi.org/10.24071/llt.v27i1.7966>
- Xue, Y. (2024). A critical thinking-oriented approach in English as a foreign language (EFL) writing: Using ChatGPT as an ideal peer. In Proceedings of the International CALL Research Conference 2024 (pp. 327–332). <https://doi.org/10.29140/9780648184485-49>
- Zumbrunn, S., Marrs, S., & Mewborn, C. (2016). Toward a better understanding of student perceptions of writing feedback: A mixed methods study. *Reading and Writing*, 29(2), 349–370. <https://doi.org/10.1007/s11145-015-9599->