LOUGKA - KALAM Reçu le: 21/03 / 2026 Accepté le: 02/10 / 2026 Publié le: 26/11 / 2026

EXPLORING EFL STUDENTS' USE OF AI-ASSISTED TOOLS in ESSAY WRITING

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ABSTRACT:

The present study investigates the use of AI-assisted tools in essay writing. More particularly, the research explores how EFL students use these tools to produce essays, as well as their attitudes toward and perceptions of the integration of such tools. To this end, an online questionnaire was administered to L3 students at Ahmad Zabana university of Relizane. The findings revealed that the entire students rely on AI-powered tools to enhance their essay writing skills but with different frequencies, for several purposes and behaving with the suggestions and feedback of AI-based tools in various ways. Additionally, the students perceive these tools as enhancers of their essay writing and they showed awareness of the dangers of overreliance on such tools as well as they recommended for using them wisely and carefully.

KEYWORDS: The use of AI-assisted tools, EFL students, essay writing, attitudes and perceptions.

لغة – كلام الاستلام: 2026/03/21 القبول: 2026/10/02 النشر: 2026/11/26

استكشاف استخدام طلاب الإنجليزية كلغة أجنبية لأدوات الكتابة المدعومة بالذكاء الاصطناعي في كتابة المقالات

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ملخص البحث

يتناول المقال موضوع استخدام الأدوات المدعومة بالذكاء الاصطناعي في كتابة المقالات. و بشكل أكثر تحديدا, يستكشف البحث كيفية استخدام طلاب الإنجليزية كلغة أجنبية لهذه الأدوات لكتابة المقالات, بالإضافة إلى مو اقفهم و تصوراتهم تجاه استعمال هذه الأدوات. لتحقيق هذا الهدف, تم إجراء استبيان عبر الإنترنت لطلاب السنة الثالثة ليسانس بجامعة أحمد زبانة- غليزان. كشفت النتائج أن جميع الطلاب يعتمدون على الأدوات المدعومة بالذكاء الاصطناعي لتحسين مهاراتهم في كتابة المقالات, ولكن بترددات و لأغراض مختلفة, متعاملين مع الاقتراحات و الملاحظات التي تمنحها هذه الأدوات بطرق متعددة. بالإضافة إلى ذلك, يرى الطلاب أن هذه الأدوات تعمل على تعزيز كتابة مقالاتهم, و أوصو باستخدامها بحكمة و حذر.

الكلمات المفتاحية: استخدام أدوات الكتابة المدعومة بالذكاء الاصطناعي، طلاب اللغة الإنجليزية كلغة أجنبية، كتابة المقالات، المو اقف والتصورات.

1. Introduction:

Learning English as a foreign language depends mainly on mastering the four language skills including writing. In higher education context, the EFL learners are required to produce texts which are both coherent and well-organized, requiring them not only to be linguistically competent, but also to be able to organize their ideas and employ academic vocabulary. Therefore, writing as a productive skill presents a thought-provoking task for the EFL learners.

As a result of the rapid advancement of artificial intelligence technologies that the 21st century witnesses, the EFL learners found themselves in front of a variety of AI-powered tools which have recently emerged to assist them to overcome the hurdles that they may encounter throughout the writing process. These AI-driven tools, in fact, provide the students with suggestions and feedback about language including grammar, vocabulary and sentence structure. When employing the tools effectively, the students can write more thoughtfully and independently; however, overreliance on them can limit their autonomy, creativity and critical thinking which are of paramount significance in order to produce structurally coherent essays.

Therefore, the subsequent research questions are raised:

1) How do the EFL students employ AI-assisted tools in essay writing?
2) What perceptions do the EFL students have about AI-assisted writing tools?

2. Literature Review

2.1 Writing

Writing is essential for language learning because it supports the learners in organizing ideas, reflecting on language use and expressing meaning coherently and accurately (Hyland, 2003). Within this regard, Hyland emphasizes the significant role that writing plays in helping the learners to structure and communicate their thought logically and correctly by selecting the appropriate language structures.

Writing comprises stages which are pre-writing, drafting, revising, editing and publishing (Tribble, 1996). In pre-writing stage, the writers brainstorm and organize their ideas. In drafting, they put these ideas into the first written version without giving much importance to accuracy. In the next stage which is revising, the writers improve the draft in terms of ideas organization and clarity while in editing, they improve the text in terms of language, including grammar, spelling, punctuation and vocabulary. In the last stage which is publishing, the writers share the final version of their writing with the readers.

Regarding essay writing, Hedge (2000) states that it is crucial in improving learners' academic literacy, critical thinking and command of the linguistic resources in a second or foreign language. This suggests that essay writing allows the university students to learn producing texts which comply with the standards of academic writing where they actively employ mental processes, such as analysis, evaluation and comparison; moreover, it permits them to learn language forms like grammar, vocabulary and sentence structures.

2. 2. The Use of AI-assisted Tools in Essay Writing

Essay writing process is not free from obstacles which are generally related to both content, form and language. This pushes the EFL students to employ AI-powered tools, like Grammarly, ChatGPT, and QuillBot to overcome such challenges and improve their essays. According to O'Neill & Russell (2019) and Li & Hafner (2023), the students use these AI-powered tools to identify and correct grammar and lexis mistakes, rephrase the sentences, generate and organize ideas.

About learner autonomy and confidence, Lee et al. (2024) stated that the use of AI-driven writing tools promotes learner independence and allows the students to revise and improve their academic writing autonomously. Similarly, Chen (2025, p.6) adds "by offering immediate feedback and data-driven insights, the tool supports learner autonomy, as students can independently track and address their weaknesses".

However, the use of AI-based tools in essay writing is not without risks, overreliance on them may limit students' cognitive processes which are necessary in improving writing skills in a second language (Ranalli, 2018). These cognitive processes, according to Dikli, (2006) include higher-order reasoning like argument development and critical thinking.

Several studies have recently been conducted to investigate how the EFL students make use of AI-powered tools in their writing. More particularly, such studies focused mainly on the following topics: students' attitudes toward and perceptions of these tools, the way the students employ them to improve and enhance their writing, the challenges they face when using them as well as the dangers of overreliance on such tools. Azennoud (2024) examined the impact of using AI-assisted tools on enhancing Moroccan university EFL students' writing accuracy and complexity. The findings displayed that there is a notable improvement in students' writing productions when integrating AI tools. Such improvements generally include mitigation of the grammatical and spelling mistakes, producing grammatically sophisticated and complex sentences, raising motivation and engagement level as well as encouraging autonomous learning.

Likewise, Nguyen Thi et al (2025) conducted a study in the Vietnamese context where they investigated EFL students' perceptions and challenges of utilizing AI-powered tools. The findings revealed that the students regularly make use of tools like ChatGPT, QuillBot and Claude in their academic writing, including essay writing, across almost all the steps of the writing procedure. Moreover, they perceive such tools as booster of their grammar accuracy, ideas generation as well as vocabulary use.

Mekheimer (2025) investigated the impact of generative AI-powered writing feedback, particularly utilizing Grammarly, on EFL learners' writing proficiency. It was found that AI-enhanced feedback notably improve students' general writing proficiency, chiefly in terms of language use and organization. The students reported improvements in confidence, accuracy, clarity and revision efficiency; furthermore, they emphasized that it is necessary to engage critically with AI suggestions.

3. Methodology

3.1 Research Design

The present study uses a mixed-method approach to collect data about students' use of AI-powered tools in essay writing and their attitudes toward and perceptions of the integration of such tools. More particularly, an online questionnaire is administered to collect data from EFL university students. This questionnaire contains both closed-ended questions and open-ended ones. The closed-ended questions collect quantitative data about how the students use AI-driven tools and their attitudes toward and perceptions of using these tools. The open-ended questions gather qualitative data about students' effective use of AI-assisted writing tools

3.2 Participants

The participants of this study were L3 EFL students at Ahmad Zabana University at Relizane which are 156 students. A sample of 60 students completed the questionnaire. 53 of them are females and 07 of them are males. Their age is between 20 and 25 years old. L3 students were selected as a sample in this study because they have already learned essay writing when they were L2 students as

part of their written expression syllabus, but they are still considered beginners in essay writing, having insufficient experience to write essays without assistance, including the use of AI-powered tools.

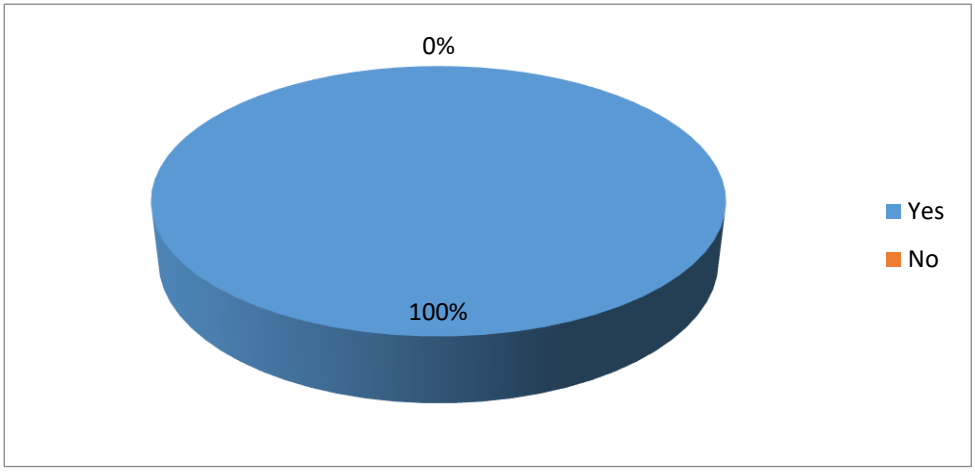
3.3 Data Collection Instrument

One research tool was employed in this study which was a questionnaire. It was distributed online via Google Forms. This questionnaire contained four sections: (1) demographic information. (2) students' use of AI-assisted tools in essay writing. (3) students' perceptions of and attitudes toward the use of AI-assisted writing tools. (4) students' effective use of AI-assisted writing tools. The first and the second sections included both yes/no and multiple-choice questions, but in the third section which gathers data about students' attitudes and perceptions was measured using 5-point Likert scale. Concerning the last section, it includes two open-ended questions to collect qualitative data about students' future and effective use of AI-assisted writing.

3.5 Findings

3.5.1 Quantitative Findings

Chart.1. Students' use of AI-assisted writings tools



The findings in chart 1 indicate that the entire students (60) make use of AI-assisted tools to write their essays.

Chart.2. Students' Frequency of using of AI-assisted writings tools

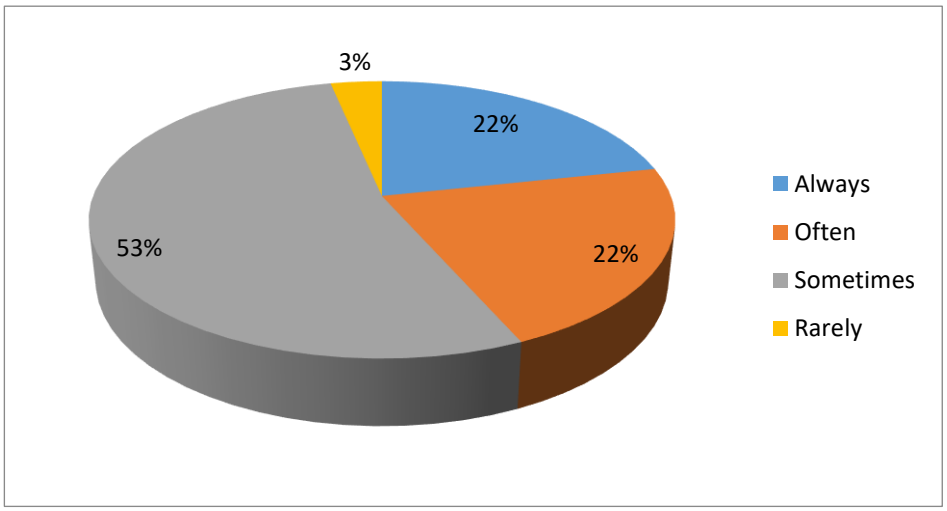
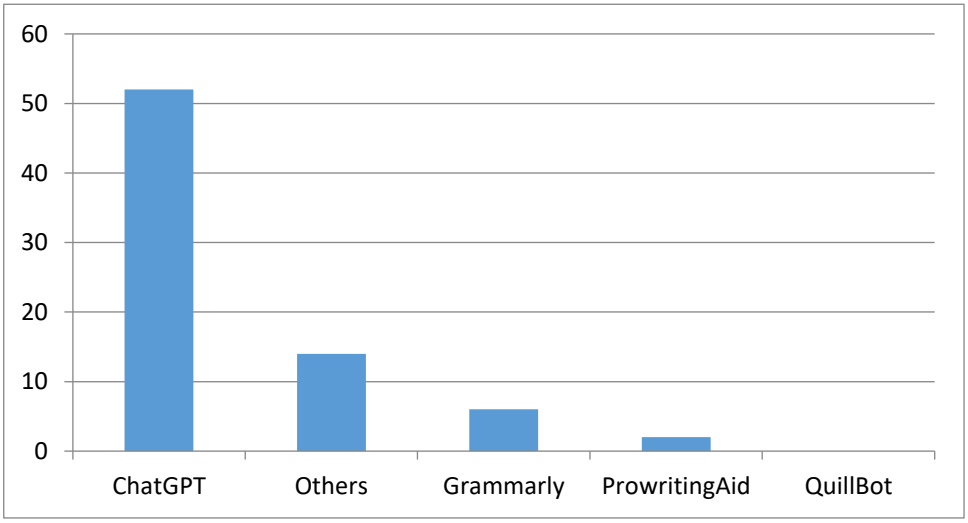


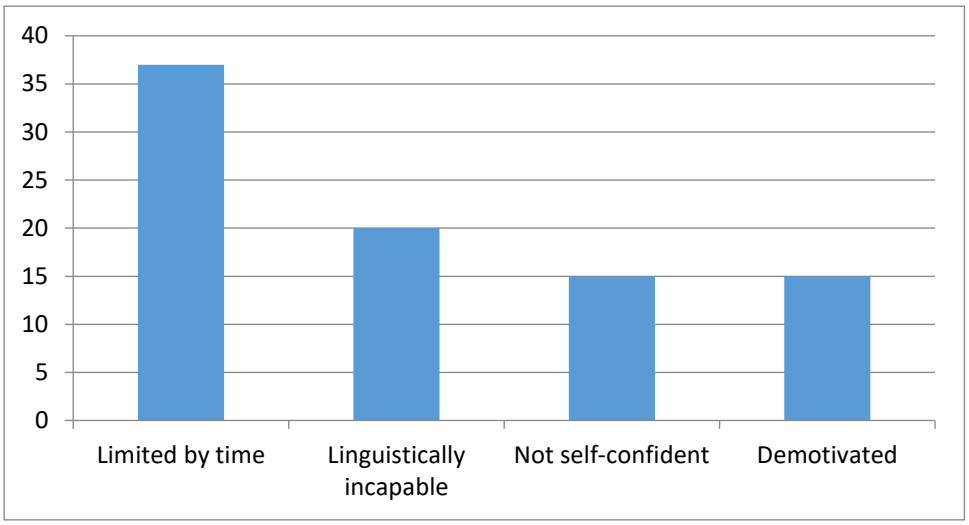
Chart 2 shows how often the students employ AI-assisted tools to produce essays. It was found that 32 participants (53%) 'sometimes' use these tools and 13 students (22%) 'often' use them. 13 of them (22%) also indicated that they 'always' employ AI-assisted tools while only 2 students (3%) reported a 'rare' utilization of such tools.

Graph.1. AI-assisted writings tools that the students mostly use



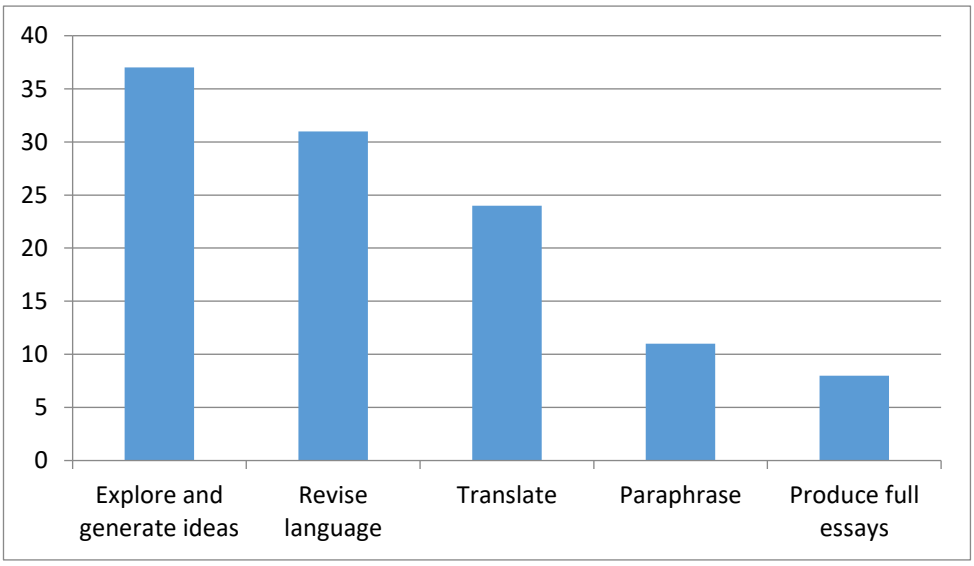
Graph1 illustrates AI-assisted writing tools that the students mostly use. It was found that 52 students (86.7%) use ChatGPT and 14 students (23.3%) make use of other AI-assisted writing tools while 6 students (10%) employ Grammarly. ProwritingAid is employed by only 2 students (3.3%); however, none of them make use of QuillBot.

Graph.2. Cases when the students use AI-assisted writings tools



Graph2 displays the results of the cases when the students use AI-assisted writing tools. 37 students (61.66%) stated that they use this kind of writing tools when they are limited by time and 20 students (33.33%) reported that they use them when they feel that they are linguistically incapable. 15 students (25%) indicated that they utilize such tools when they are not self-confident. Equally, 15 (25%) students reported that they use AI-assisted tools because of demotivation.

Graph.3. Students' Purposes of using AI-assisted writings tools



Graph3 displays the findings of the purposes that the students intend to achieve from using AI-assisted writing tools. It was found that 37 students (61.33%) utilize such writing tools in order to explore and generate ideas while 31 students (55.66%) said that they use them so as to revise language. 24 students (40%) stated that they use these tools for translation while 11 students (18.33%) use them for paraphrasing and only 8 students (13.33%) use AI-assisted tools to produce full essays.

Chart.3. Students' frequency of reflecting on the feedback and suggestions

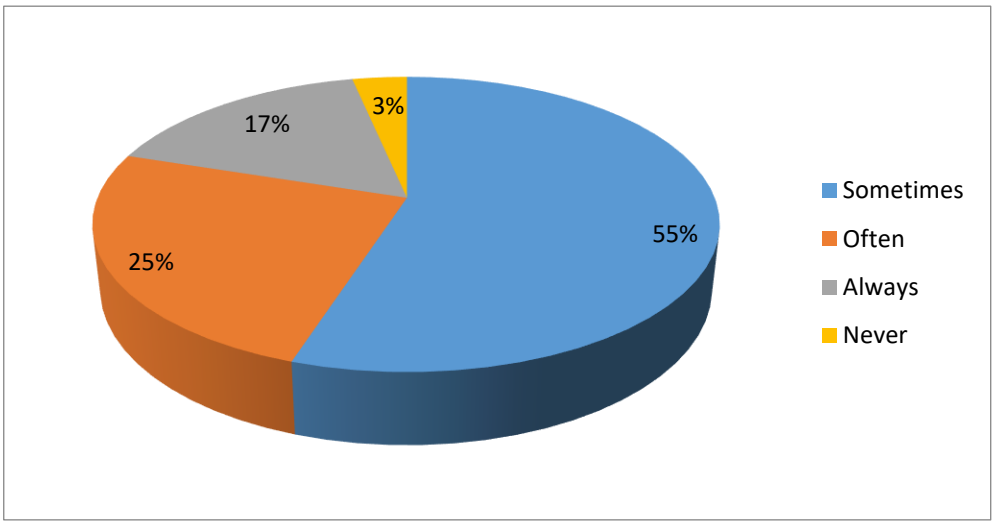
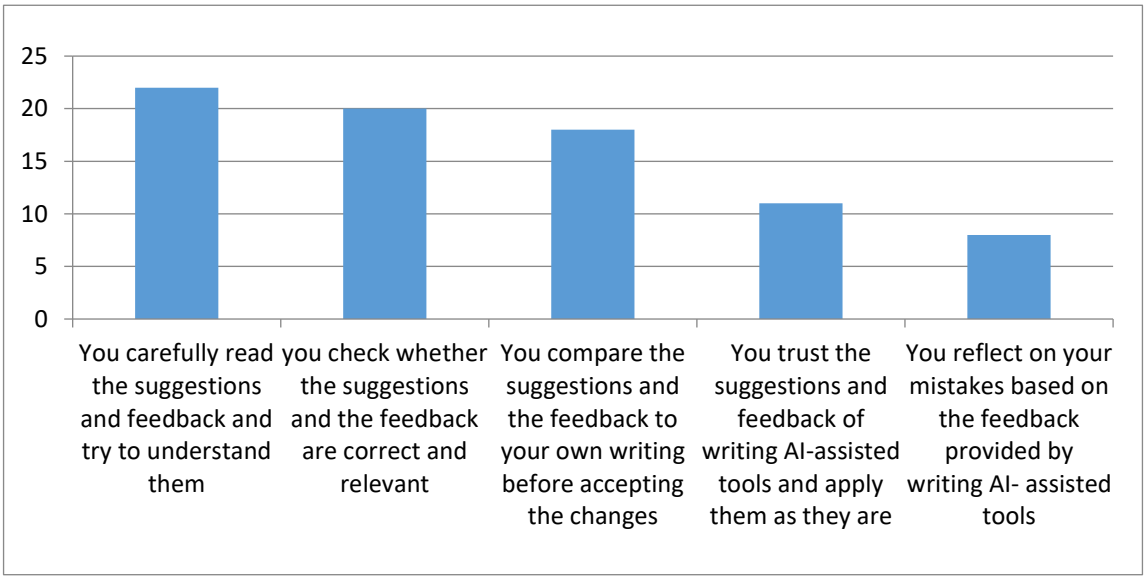


Chart3 displays the findings of how often the students reflect on the suggestions and the feedback which are provided by AI-assisted writing tools. 33 students (55%) said that they 'sometimes' reflect on the suggestions and the feedback and 15 students (25%) indicated that they 'often' reflect on them. 10 students (17%) reported that they 'always' reflect on such suggestions and feedback while 2 students (3%) stated that they 'never' reflect on them.

Graph.4. The ways students reflect on the feedback and suggestions



Graph 4 displays the findings of the ways students respond to the suggestions and the feedback which are offered by AI-assisted writing tools. 22 students (36.7%) reported that they carefully read and try to understand the suggestions and feedback , 20 of them (33.3%) stated that they check if the suggestions and feedback are correct and relevant and 18 students (30%) reported that they compare the suggestions and the feedback to their own writing before accepting the changes. 11 students (18.3%) said that they trust and apply them as they are while 08 students (13.33%) said that they reflect on their mistakes based on the feedback which are provided by AI-assisted writing tools.

Chart.4. Students' attitudes toward and perceptions of the statement 'the use of AI-assisted writing tools improves my English writing skills'

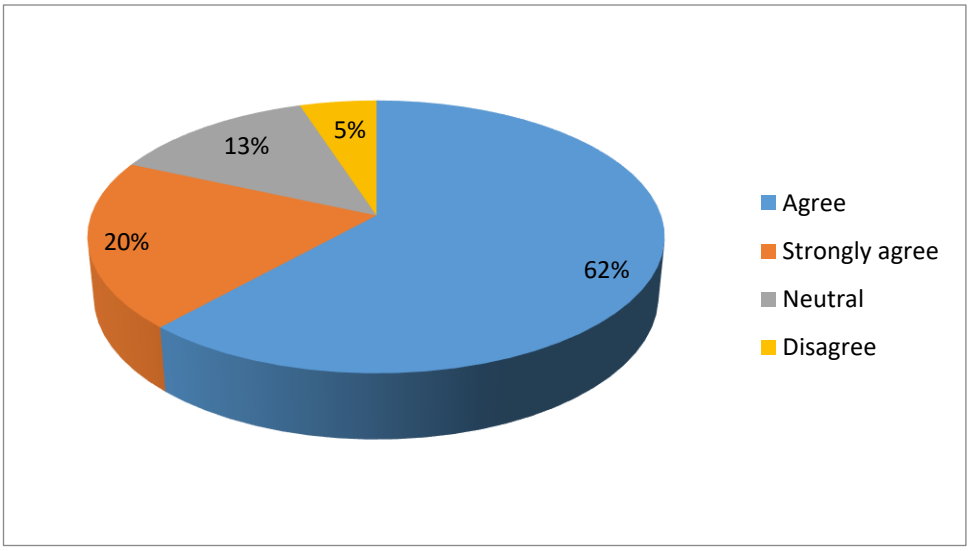


Chart 4 displays students' attitudes toward and perceptions of the statement "the use of AI-assisted writing tools improves my English writing skills". It was found that a large proportion of the sample 37 students (62%) agree with the statement and 12 students (20%) strongly agree with the statement. 08 students (13%) showed neutrality toward the statement while only 03 students (5%) who disagree with the statement.

Chart.5. Students' attitudes toward and perceptions of the statement "the use of AI-assisted writing tools decreases my creativity"

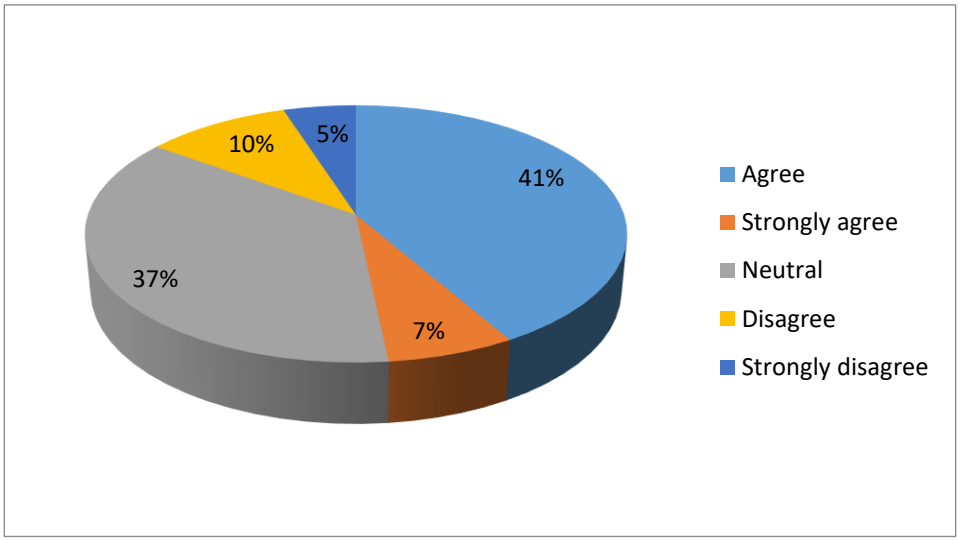


Chart 5 shows students' attitudes toward and perceptions of the statement "the use of AI-assisted writing tools decreases my creativity". It was found that 25 students (41%) agree with the statement and 22 students (37%) reported their neutrality toward the statement. 06 students (10%) disagree with the statement while only 03 students (5%) strongly disagree with the statement.

Chart.6. Students' attitudes toward and perceptions of the statement "the use of writing AI-assisted tools makes me dependent on them"

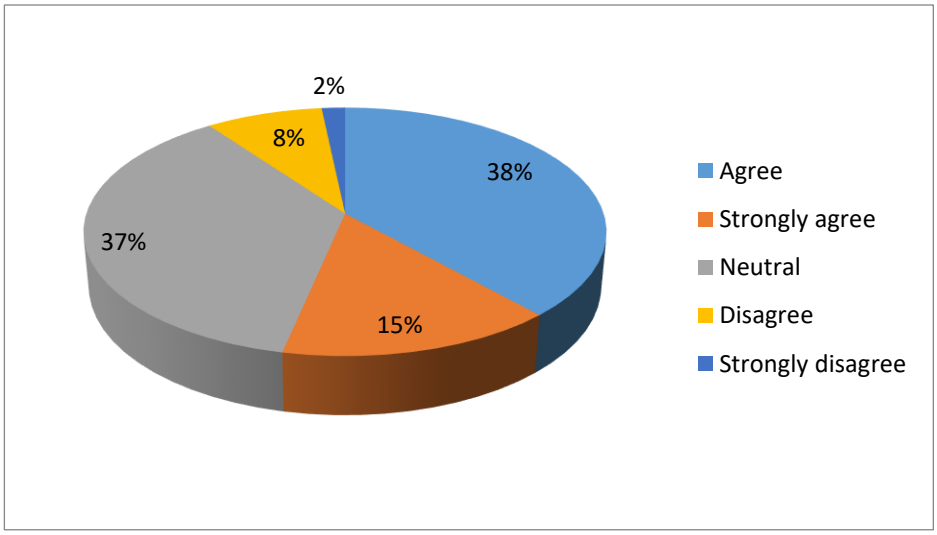


Chart 6 shows the findings of students' attitudes toward and perceptions of the statement "the use of AI-assisted writing tools makes me dependent on them". The findings show that there are 23 students (38%) who agree with the statement and 22 students (37%) who indicated neutrality toward the statement. 9 students (15%) strongly agree with the statement, 5 students (8%) of them show their disagreement with the statement while only 1 student (2%) strongly disagrees with the statement.

Chart.7. Students' attitudes toward and perceptions of the statement "AI-assisted writing tools make me feel more self-confident"

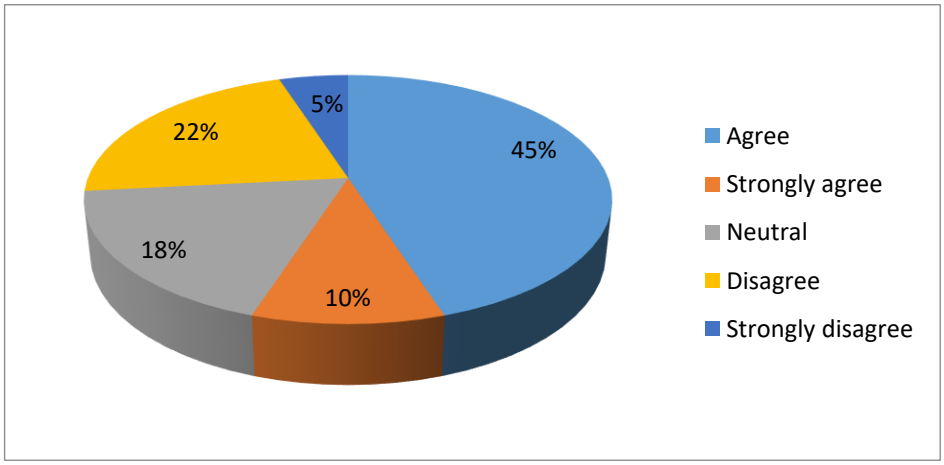


Chart 7 displays the findings of students' attitudes toward and perceptions of the statement "AI-assisted writing tools make me feel more self-confident".27 students (45%) agree with the statement and 13 of them (22%) disagree. 11 students (18 %) showed neutrality toward the statement, 6 students (10%) indicated strong agreement while 3 of them (5%) exhibited strong disagreement.

3.5.2 Qualitative Findings

The findings of students' responses to the first open-ended question, which deals with students' ability to stop using AI-assisted writing tools in essay writing, reveal three main themes: students' willingness to discontinue employing such tools, students' dependence on such tools and

students' uncertainty about their ability of stopping the usage of the tools. First, many students reported that they would be able to stop using these AI-assisted writing tools. More particularly, several students reported that it is important to rely on themselves and improve their own writing skills, believing that this allows them to develop their creativity and critical thinking. Second, a considerable number of students expressed their dependence on AI-assisted writing tools. They indicated that it is difficult to completely stop using these tools because they are helpful in providing them with feedback linked to both language and style, believing that this permits them to improve their essay writing. Lastly, very few students indicated that they are unsure about whether they would be able to cease utilizing AI-assisted writing tools. More specifically, they just reported: "may be" and "it depends".

The findings of the second open-ended question, which is about what the students should do to implement AI-assisted writing tools effectively, show three significant themes: using AI-assisted writing tools as a helpful resource, avoiding dependence on them and employing them carefully and wisely. Firstly, most of the students indicated that AI-assisted writing tools should be used as a resource which helps them to improve their writing skills. More specifically, they stated that these tools should be used to learn techniques of essay writing and to improve their essay writing in terms of grammar, vocabulary and spelling as well as the structure. Secondly, some students advised that the students shouldn't depend on these writing tools fully and constantly. More particularly, they indicated that the students shouldn't take the whole essays as they are produced by AI-assisted tools and they shouldn't utilize them as replacement for their thinking, they should, instead, produce essays which reflect their own ideas and voice, using their own words. Finally, some students indicated that AI-assisted writing tools should be used carefully and wisely. They recommended that the students should evaluate the suggestions offered by these tools critically through reflecting on them and compare them to their own answers.

4. Discussion

To begin with, the findings of the first section which deals with the use of AI-assisted writing tools reveal that there is a clear tendency among students to use AI-assisted writing tools, suggesting that the use of these tools has become part and parcel of their essay writing practices. Concerning the frequency of use, the great majority of the students 'sometimes', 'often' and ' always' use these tools, indicating both moderate and stronger reliance. This is thanks to the support, guidance and the trustworthy information that these tools offer. Meanwhile, the "rare" use of such tools by very few students points out slight dependency, highlighting that the students can produce essays, but with a bit reliance on these tools.

The findings also reveal that the students tend to make use of a variety of tools mainly ChatGPT. This means that the students are knowledgeable about the available tools and how to use them to write their essays because these tools provide the students with human-like replies that guide them throughout the process of writing. However, using Grammarly and ProwritingAid by few students means that these tools are less common among them, in contrast to QuillBot that they may not know that it exists. About the cases of using such tools, it was found that the students generally refer to them in cases of time constraints, linguistic incapability, demotivation and lack of self-confidence. These findings imply that these tools act as time-savers, a linguistic refuge, a support and a secure atmosphere for the students to produce essays which are correct in terms of language and content.

Regarding the purposes of using writing AI-assisted tools, the majority of students use them for exploring and generating ideas, revising language as well as for translation. This means that these tools are considered a source of reliable information, a linguistic support and a trustworthy translation source respectively. There are also few students who use these tools for paraphrasing,

denoting that most of the students do paraphrasing themselves. However, the slight percentage of students who utilize these tools to produce full essays indicates their overreliance on them.

The findings of how often and how the students reflect on the suggestions and feedback which are provided by AI-assisted writing tools show that there is a high percentage of the students who "sometimes", "often" and "always" reflect on the suggestions and feedback in various ways, implying that the students do not take the information offered by these tools for granted; however, they think critically of the input through reading them frequently and carefully to check whether they are correct and relevant to their essays. However, the tiny proportion of students who never reflect on the suggestions and feedback; moreover, they trust and apply them as they are indicates their overreliance on and uncritical trust in AI-assisted writing tools.

Secondly, the data of the second section which covers students' attitudes and perceptions toward the use of AI-assisted writing tools reveal that the great majority of the students showed positive attitudes and perceptions toward the ideas that the use of AI-assisted writing tools improves their English writing skills, makes them more self-confident, dependent as well as decreases their creativity, suggesting that the students are aware of the importance that the tools play in enhancing their writing skills and their self-confidence, on the one hand, and that these tools are harmful to them in the sense that they can increase their dependency and limit their creativity, on the other hand.

However, very few students showed negative attitudes and perceptions toward the former ideas, denoting that these students need more guidance and exposure to such tools in order to recognize their usefulness in essay writing and that the impact of such tools on students' self-confidence is not universal, on the one hand, and the students use AI tools just as supportive tools rather depending on them completely and they are certain that these tools cannot harm their creativity

Lastly, the qualitative findings which are about students' future use of AI-assisted tools and recommendation about their effective use show, firstly, students' willingness to cease utilizing AI-assisted writing tools, suggesting that they have a strong determination to improve their writing skills far from using such tools. However, students who showed dependence on such tools denote that these tools are so important and helpful that they find it difficult to discontinue using them. Furthermore, students' uncertainty about their ability to stop using AI tools implies that they want to stop using these tools, but their lack of self-confidence in their linguistic capacities and their overreliance on the tools prevent them from thinking about quitting the usage of such tools. Secondly, regarding the effective use of AI tools, students' advice of using AI-assisted writing tools just as a helpful resource may indicate that the students are conscious of the significant role that these tools play in helping them to improve their writing skills. The second advice of avoiding dependence on AI-assisted tools suggests that they are aware of the risks of overreliance on such tools which may lead to killing their creativity in writing and reducing their critical thinking. The last advice of using the tools carefully and wisely denotes that the students do not fully trust the information that AI-assisted writing tools offer. They, instead, should process and evaluate such information before using them.

5. Limitations of the Study

This study has two main limitations that should be acknowledged. The first one involves the sample size which is limited to only 60 students from one level and at one academic institution. This restricts the generalizability and the applicability of the findings to other contexts.

The second limitation is that the study did not include other data collection methods such as interviews and analysis of students' written essays. This could have provided in-depth insights and more triangulated data about how the EFL students use AI-assisted tools in their essay writing.

6. CONCLUSION

This study investigated the use of AI-powered tools in essay writing by the EFL students. The findings demonstrated that the use of these tools has become part and parcel of their essay writing practices in order to improve their essay writing skills. Furthermore, the students showed awareness of the dangers of overreliance on such tools and they recommended for using them wisely and carefully. These findings are significant in the sense that they contribute to understanding of how the students use AI-driven tools in their essay writing and how they perceive their use. Moreover, the study contributes to the growing body of research on technology-enhanced language learning, providing it with context-specific data from Algerian higher education setting.

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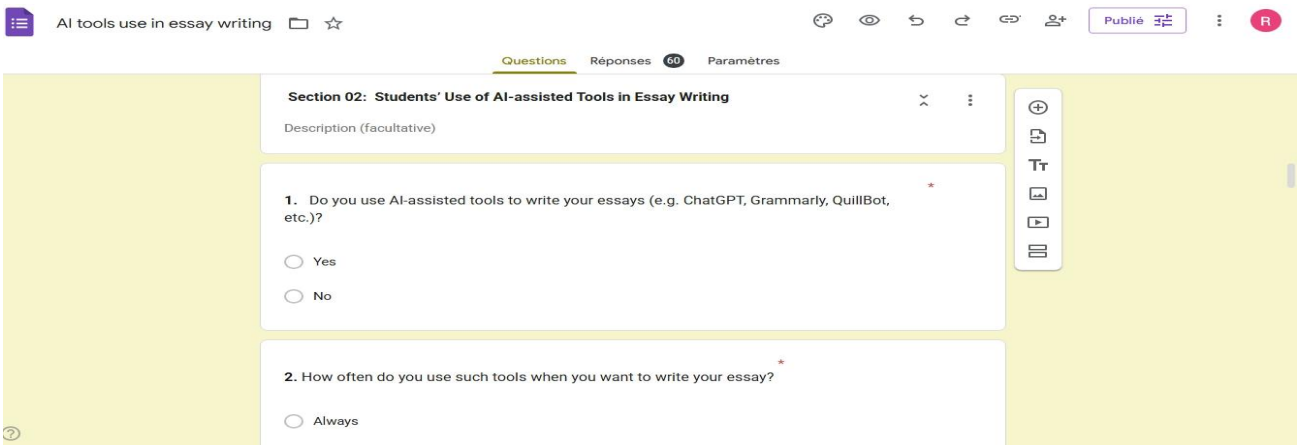
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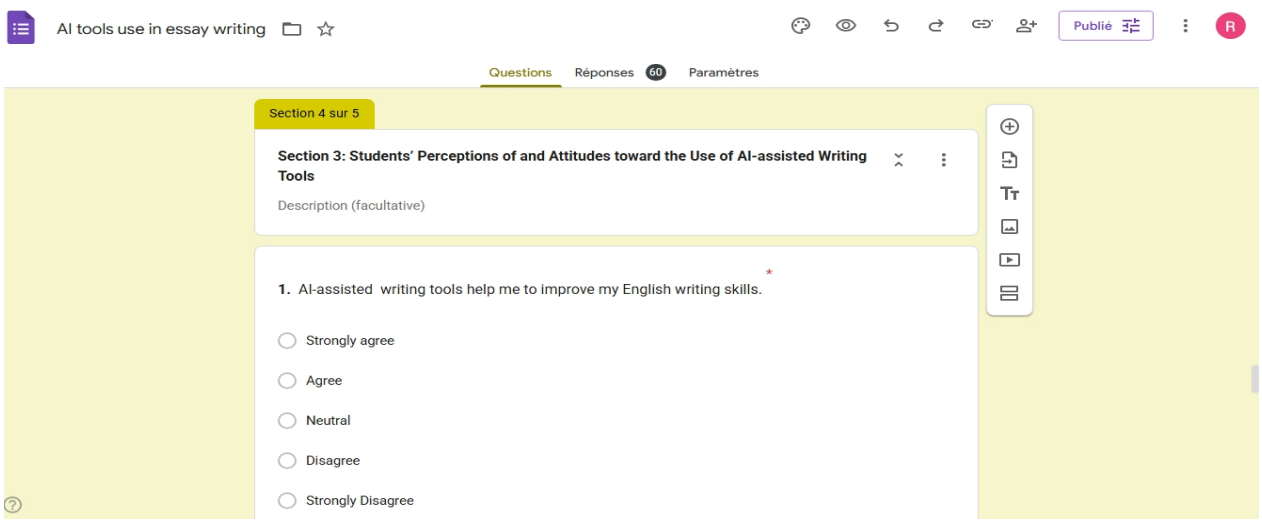
Appendix: Online Questionnaire

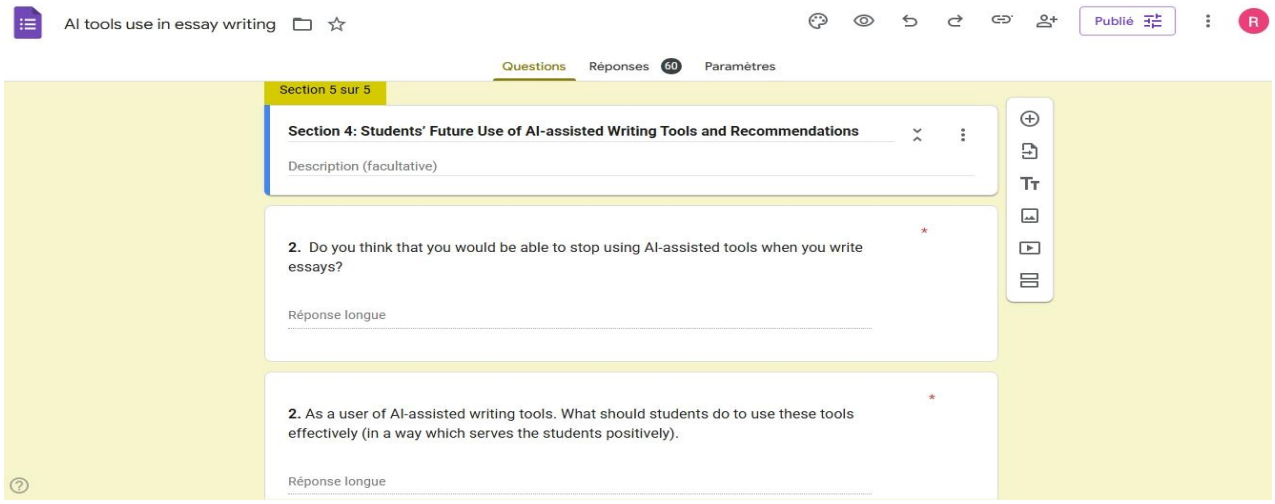
The questionnaire link: [AI tools use in essay writing - Google Forms]

Online questionnaire screenshots






AI tools use in essay writing
Publié
Questions
Réponses 60
Paramètres
Section 4 sur 5
Section 3: Students' Perceptions of and Attitudes toward the Use of AI-assisted Writing Tools
Description (facultative)
1. AI-assisted writing tools help me to improve my English writing skills. *
Strongly agree
Agree
Neutral
Disagree
Strongly Disagree


AI tools use in essay writing
Publié
Questions
Réponses 60
Paramètres
Section 5 sur 5
Section 4: Students' Future Use of AI-assisted Writing Tools and Recommendations
Description (facultative)
2. Do you think that you would be able to stop using AI-assisted tools when you write essays? *
Réponse longue
2. As a user of AI-assisted writing tools. What should students do to use these tools effectively (in a way which serves the students positively). *
Réponse longue