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OVER-RELIANCE OF AI TOOLS IN ACADEMIC WRITING TASKS: THE MALAYSIAN TERTIARY LEVEL CONTEXT

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ABSTRACT

The integration of Artificial Intelligence (AI) tools in academic settings has revolutionised the process of teaching and learning worldwide. This technology also undeniably offers boundless accessibility to English as a Second Language (ESL) students in accomplishing their academic writing tasks. This custom is mostly prevalent especially among Malaysian tertiary level students, seeing the incorporation of technology is a must in the current implementation of blended learning in the education system. However, over-reliance on these AI tools may potentially undermine students' academic integrity, creativity, and particularly their critical thinking skills. This paper investigates the phenomenon of over-reliance on AI tools in academic writing tasks within the Malaysian tertiary level context. This study surveys Malaysian undergraduates' AI technology usage patterns in completing their academic writing assignments in English as their second language. Qualitative interviews were also conducted to provide background understanding of the participants' viewpoints on the related AI technology, reasons of using the opted AI tools, and related issues in using AI tools in accomplishing academic writing tasks. The findings reveal that Malaysian undergraduates profoundly opted for AI tools related to translation purposes, English writing prompts for content generation, English spelling and grammar check, and plagiarism detection. This over-reliance is due to such factors related to the ease of access to technology, lacking in writing skills, students' academic pressure, and weak ESL proficiency. This study recommends that educators intervene and guide students' use of AI tools so that they are able to incorporate critical thinking skills and responsibly utilise available technology with integrity.

Keywords: Artificial Intelligence (AI) tools, ESL (English as a Second Language), academic writing.

1. Introduction

The integration of artificial intelligence (AI) tools in academic writing tasks has emerged as a transformative trend in educational settings. Those involved in the educational context: learners and teachers benefit from these AI tools which offer a range of functionalities aimed at enhancing various aspects of writing and composition process. Composition progression including drafting, editing, citation management, and plagiarism detection is made easier with the assistance of the right AI tools. These AI tools integrate AI techniques, machine learning algorithms, and natural language processing (NLP) to provide computerised assistance in tasks such as generating content, managing citations, analysing grammar, detecting plagiarism and analysing writing styles. Use of various AI-powered writing tools among university students are increasing day-by-day: automated writing evaluation tools, tools providing automated corrective feedback, AI-powered machine translators, and GPT-3 text generators are mostly typical options (Alharbi, 2023). In the Malaysian tertiary education picture, online sources, and AI tools such as Google Translate, ChatGPT, Grammarly, Turnitin, QuillBot, and Wordtune have been widely exploited especially in accomplishing academic writing tasks in English.

Even though the risk of privacy and security exists when using AI writing platforms, factors such as time constraints and limited language skills contribute to the increase of AI tool reliance among tertiary-level students. AI writing tools that offer real-time feedback on grammar, punctuation, and style issues can greatly increase the quality of writing among second language learners, however, the tendency to commit plagiarism in academia is quite high (Roe et al., 2023). When using AI tools, students claimed that it boosted their confidence because of the improved writing outcomes provided; specifically on their grammar, punctuation, and style. A study on technology-mediated learning and



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self-regulated study has revealed that AI assistance significantly improved EFL (English as a Foreign Language) students' writing performance largely due to increased exposure to learning materials. (Han et al., 2021). It is also significant to highlight when specific contexts are required, AI tools may suggest unreliable feedback and fabricated data. This factor of too much reliance on AI tools in educational tasks is often associated with the stagnancy of writing skills development. When higher critical writing skill is required, the employment of such AI-based methods worsened learners' summary writing skills, especially in terms of readability (Kavanagh, 2022). In combatting academic dishonesty, AI tools may also assist in detecting plagiarism, although issues of accuracy are at certain levels disputed. In certain contexts, when evaluating language that was entirely produced by AI or totally authored by a human, AI detectors performed accurately; however, when evaluating text that was generated entirely by AI but had a human outline, their accuracy dramatically decreased (Alexander et al., 2023).

Integrating AI tools in educational tasks may play a vital role in bringing about opportunities of better performance among students, and on the contrary also challenging for educators (Kavanagh, 2022). By further exploring the prospects and drawbacks of integrating AI tools within educational settings, it helps in leveraging coordinated exploitation of technology assistance in teaching and learning, without jeopardising learners' intellectual development, critical thinking skills, and autonomous writing skills. Educators could take advantage of the same AI tools that assist students in their composition by assessing their writing skills from another perspective. The assessment approach must be assimilated to exploiting AI tools, rather than doing it the traditional way which may lead to the hassle of dealing with academic dishonesty attempts and unmet learning objectives. The results of examining the benefits and cons of integrating AI tools into the classroom could also be incorporated to readdress the writing assessment rubrics. In regards to the pros and cons of AI technology in education, this paper examines the practice of using artificial intelligence tools for academic writing assignments in the context of Malaysian tertiary education. This study examines how Malaysian undergraduates who are learning English as a second language use AI technologies to complete their academic writing tasks.

2. Methodology

The current qualitative study has a small-scale, exploratory design. Even though the study's generalizability is limited, it is hoped that it will offer preliminary understanding of this trending overflowing use of technology among Malaysian undergraduates and spark ideas for future research into larger-scale initiatives and effective technology integration in education implementations. The following inquiries serve as the basis for this study: (1) What are the most opted AI tools for English writing tasks among Malaysian undergraduates? (2) Why are the selected AI tools opted? (3) How effective and reliable are AI tools in the development of Malaysian undergraduates' ESL proficiency and communicative skills?

A survey on 182 Malaysian undergraduates was conducted, reviewing their choice of AI tools in accomplishing their academic English writing tasks. The participants were in their first-year of undergraduate studies. The survey was done on WhatsApp Poll and the results were quantified manually using Microsoft Excel. Supplementary semi-structured interviews were also conducted on the participants. The interviews focused on the causes of the participants' choice in using certain AI tools over others and how they find the AI tools effective. The responses of the interviews and the results of the survey were then associated to explain the basis of over-reliance of AI assistance among Malaysian undergraduates in writing assignments.



3.1 Most opted AI assistance for ESL writing assignments

Among Malaysian undergraduates surveyed in this study, several AI tools are particularly popular for English writing tasks. The most frequently used tools include ChatGPT, Google Translate, Grammarly, QuillBot and other AI writing assistant apps. Together, these resources assist students with a variety of writing-related tasks, such as idea generation, content creation, and grammar and readability improvement. These AI tools' capacity to ensure high-quality academic work, enhance language proficiency, and expedite the writing process is what makes them so popular among the studied participants. Around 42% of the multilingual participants surveyed, opted for Google Translate as their preferred AI writing assistant. Approximately 32% of those surveyed are used to using ChatGPT, 14% favour QuillBot, 10% use Grammarly in checking their English, 2% use other AI tools such as SpinBot and ProWritingAid in paraphrasing, and another 1% use Turnitin for content similarity check.

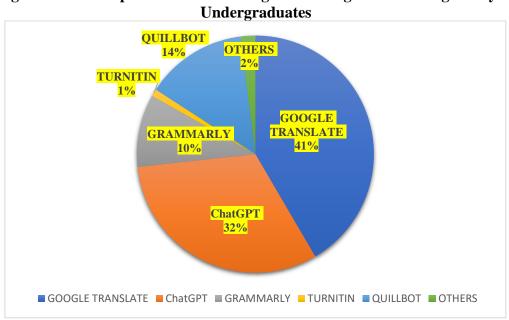


Diagram 1: Most Opted AI Tools for English Writing Tasks Among Malaysian

Generally, several AI tools have become popular among Malaysian undergraduates for their ability to enhance various aspects of the writing process. Google Translate, a multilingual neural machine translation tool, enables students to translate webpages, documents, and text between languages. Google provides free translation between more than 100 languages and English for words, phrases, and web pages in real time. ChatGPT is a well-liked AI writing helper that may help students with idea generation, essay drafting, and clarity enhancement. Its conversational tone encourages students to come up with ideas and polish their writing. QuillBot, SpinBot, and ProWritingAid can be used for paraphrasing tasks. Both AI tools may assist to improve vocabulary, rephrase words, and make sure the writing flows naturally. Grammarly is a cloud-based typing assistant examining English texts for spelling, grammar, punctuation, clarity, engagement, and delivery errors. Grammarly also looks for plagiarism and offers corrections for the errors found. Turnitin is an AI that focuses on originality checking of scholarly work to help prevent plagiarism. With the use of its database of scholarly papers, the internet, and previously submitted documents, Turnitin's programme finds similar content in electronically submitted materials. For a variety of purposes, students employ AI writing tools,



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utilising the technology to increase productivity, polish their writing, and speed up the learning process.

3.2 Reasons of relying on opted AI tools

Most Malay undergraduates opt for AI tools to address constraints in their English capability, to translate English texts to their first language for better logical interpretation, and to kickstart their brainstorming of ideas for assignment compositions. With its wide range of language support, Google Translate is especially helpful for multilingual Malaysian undergraduates. Students can use it to translate between their first and second languages, giving them access to a greater variety of resources and information. Over time, students claim that it improves their English language proficiency by assisting in the acquisition of new vocabulary and helping them comprehend unfamiliar words and phrases. The use of Google Translate is often opted because it is an open source, provides quick feedback, and is user friendly. It is also simple to combine Google Translate with other programmes and services, like Gmail, Google Docs, and other educational websites. This ease of integration enables translation while completing writing tasks, reading articles, or emailing others. However, without efficient and appropriate skills in extracting data from these AI prompts, challenges arise in verification of information and precise data discerning. This may also result the possibility of translation plagiarism. This form of hidden plagiarism may take years to detect (Dougherty, 2019).

Relying on AI technology in completing English writing tasks enhances learners' self-efficacy and academic emotions. AI writing assistance functions such as providing personalised support and immediate feedback help engage learners' learning experiences that relatively build their confidence. Most of the participants claim that using AI powered assistance encourages self-directed learning when having too many academic tasks simultaneously within the running academic semester. The participants claimed that use of AI tools can aid in the process of independent learning. The participants stated that, to maximise the effectiveness of their study time, they rely on AI technologies to help them concentrate on the areas in which they most need to develop. The students stated that AI-driven platforms like ChatGPT and Grammarly could engage users and offer them immediate feedback on their grammar, vocabulary, and pronunciation when required. Through this practice, they viewed that their language abilities are enhanced in a practical conversational setting. In improving grammar, editing, and revising English writing tasks, Malaysian undergraduates in this study prefer using Grammarly because of its extensive grammar checking, style upgrading, and plagiarism detection features. Students claim that using Grammarly helps them produce writing that is polished and free of errors. Students find ChatGPT to be a great time-saving tool for managing their busy schedules because it allows them to quickly access a variety of materials. Instead of brainstorming and library research for academic writing tasks, students use these AI chatbots to inquire explanations and to answer related questions on demand. AI-based writing tools such as QuillBot, SpinBot, and ProWritingAid are opted in helping students improve their writing skills by offering suggestions on grammar, vocabulary, style, and coherence. Students also find these tools helpful because they use them to paraphrase content to avoid direct plagiarism.

Advanced academic writing often requires multiple rounds of revising and editing. This is especially more so for Malaysian undergraduates writing in English. Turnitin has been popular among Malaysian academicians, most instructors advise their students to submit their assignments to Turnitin beforehand. This is also the main cause of Turnitin being opted by Malaysian undergraduates. Usually, students opt for using Turnitin because of certain requirements set by their instructors or their coursework. The software assists in detecting possible plagiarism in student work by comparing



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it to a vast database of scholarly publications, articles, and online information. This makes it more reliable for the students to turn in original work and recognise the value of maintaining academic integrity.

3.3 Effectiveness and reliability of AI assistance in ESL writing tasks

Because of their overworked schedules and packed classrooms, instructors no longer have enough time to give formative feedback comments. Hence, the immediate feedback features of AI help engage learners' learning experiences in certain aspects. However, the instructors' feedback and review for confirmation are still required. Biases and ethical dilemmas can still affect AI systems and affect the information they generate. When students use AI excessively in their work, it might amplify negative preconceptions, strengthen current disparities, and marginalise certain voices and viewpoints. It is important to take into account some of the disadvantages of totally relying on AI writing assistance technology in order to maintain students' learning experiences and writing abilities as a whole.

Although Google Translate is a handy and frequently helpful tool for quick translations, most Malaysian students are not aware that they should use this AI tool with caution, especially for critical or sensitive translations, due to its limits in accuracy, context sensitivity, specialised language handling, and privacy. It is advisable to use extra translation tools to cross-check results or to consult with their instructors for crucial work. ChatGPT is also not totally dependable, it cannot be regarded as a reliable information source. The technology continues to rely on online content that was published before 2022. ChatGPT also generates non-accurate data, for example non-existing APA citations and made-up figures. Although ChatGPT helps students brainstorm and learning, overrelying on it for academic writing tasks is a risk. QuillBot, SpinBot, and ProWritingAid are really accommodating AI tools in revising and editing English written drafts. These tools may aid students in avoiding plagiarism and enrich writing styles. However, their writing outcomes may be less creative and become formulaic and generic. As for Grammarly, without a doubt it contributes to the ecology of better writing. More help and more thorough feedback are provided in grammar checking tasks. Grammarly may be relied upon to check spelling and punctuation accurately, but its style recommendations should be regarded with caution. In combatting academic dishonesty, Turnitin is an effective tool for highlighting possible plagiarism, however it is not a plagiarism detector. Users must carefully analyse their writing because a high Similarity Index score generated by Turnitin does not always indicate plagiarism. The same goes for low Similarity Index score, it may indicate poor writing skills or insignificant content input.

The benefits that AI tools offer to Malaysian undergraduates in accomplishing their English writing tasks include simplifying tasks, time saving, bias elimination, and task automation. However, overreliance on these AI tools will bring about drawbacks like expensive implementation, the possibility of eliminating jobs for certain parties, and a lack of feeling and originality. Overall, these AI writing assistant tools are not free of errors, and should not be totally relied on without human intervention. It is significant to note that in the teaching and learning context, the learner-instructor collaboration should exist in synchronous to available AI technology assistance to ensure effective learning outcomes.



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4. Conclusion

All in all, computer-based intelligence apparatuses have become necessary parts of scholastic composing errands, offering mechanised assistance in different parts of the ESL composition cycle. While these instruments hold guarantee for upgrading composing capability and advancing scholarly uprightness, they additionally present difficulties connected with overreliance, exactness, and information protection. Pushing ahead, educators and students should together explore these intricacies while utilising the advantages of simulated intelligence devices while alleviating their impediments through informed utilisation and basic commitment. Relevant methods should be devised in exploiting computer-based intelligence instruments on scholastic composing practices and instructional methods. Subsequently, if college level appraisals offer imprints for style and articulation, punctuation, and language use in their rubrics; arrangement should be made for an evenhanded methodology with the goal that AI tools should either be allowed or on the other hand not be allowed. Organisations ought to contemplate about taking an entire of-institution approach and giving admittance to AI tools to improve the value of evaluation.

Utilisation of some AI instruments is inevitable and should be permitted to help with composing English texts, however it should obviously be acknowledged and recognised and credited by the students. This would mean undergraduates might have the option to utilise some computerised composing apparatuses without repercussions of committing academic dishonesty. In addition to this, students also need to understand that in writing, good paraphrasing is not only about replacing words and restructuring sentences which is very possible with the reliance of AI writing tools; excellent paraphrasing must include our insights of the ideas extracted from the original resources. Specific instructive elements on accountability, impediments, inclinations, errors, and moral contemplations of exploiting AI assistance need to be more noteworthy and communicated thoroughly within the academic context.

As digital literacy is increasingly required, educators too must familiarise themselves with the use of AI tools and AI generated texts so that they are able to assimilate to this inevitable context and assess written assignments properly. Knowing ChatGPT generated writing, Quillbot generated paraphrased suggestions, and SpinBot generated data; will bring an advantage to instructors in grading students' tasks. This could also be included in improving the rubrics of the assessments. Even though AI detectors are available to assist in evaluating plagiarism and originality; still those tools are not totally reliable and human evaluation is required. For now, it is best to integrate both methods: AI and human assessors since AI tools function to assist human beings. Total reliance on AI tools may jeopardise the quality and validity of written task evaluation. This means, it goes both-ways, whether in producing written assignments or evaluating those assignments. AI technology should serve as a teacher and student companion rather than as a substitute for effective instruction. Educators should expand ESL writing curriculum to a more efficient AI integrated writing experience. Students should be aware that 100% over-relying on AI tools is perilous. ESL students should be exposed to be perceptive of editing and correcting AI generated suggestions which are frequently not free of errors. ESL learners should beforehand be exposed to intensive explanation about writing styles – readability, sentence length variation, active-passive voice, sentence clarity, language tone – formal, informal, polite language, confident language, business language norms, punctuations, style of numbering, date, and time, inclusiveness of certain biased conventions, language creativity, and proper citation.



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