

AN EXPLORATION OF EFL STUDENTS' PERCEPTIONS OF AI-INTEGRATION IN THE LEARNING PROCESS

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ABSTRACT

This study explores EFL students' perceptions of artificial intelligence (AI) integration in language learning, utilizing Kahneman's Dual Process Theory (2011) to examine intuitive (System 1) and reflective (System 2) cognitive responses. The study aims to understand how junior EFL learners engage with AI tools, and to explore the perceived benefits and challenges of AI-assisted learning. A qualitative research approach was employed, involving 14 students from a Junior-Teenager Conversation class in Medan, selected through convenience sampling. Data were collected using a two-part questionnaire: the first part consisted of multiple-choice items to assess instinctive, emotional reactions, while the second part included open-ended questions to elicit analytical and evaluative responses. Data were gathered during regular classroom sessions and analyzed thematically using Braun and Clarke's (2006) five-phase framework. The findings revealed that 71.4% of students found AI tools "interesting," while 7.1% felt "optimistic" and 21.4% "amazed." Key benefits included AI's user-friendly interface (42.9%) and well-explained responses (35.7%), while concerns included reduced learning effort (57.1%) and potential academic dishonesty (35.7%). The study highlights the dual impact of AI enhancing personalization and engagement, while presenting ethical and pedagogical challenges. It recommends balanced integration of AI in EFL learning and further research into its long-term effects.

Keywords: *Artificial Intelligence (AI), EFL Learning, Students' Perceptions, AI Integration, Language Education*

Introduction

The advancement of Artificial Intelligence (AI) into English as a Foreign Language (EFL) learning environments has gained significant scholarly attention due to its potential to develop teaching and learning setting. AI technologies offer number of benefits in terms of learning process such as intelligent tutors, adaptive learning platforms, and human-machine interaction, which collectively support personalized learning and enhanced student engagement (Chiu, 2024; Hirankerd & Kittisunthonphisarn, 2020; Kim et al., 2021). Given that students are the direct users of these technologies, their perceptions are vital to understanding both the efficacy and impact of AI in educational settings. Exploring students' perception allows educators to have access whether AI truly supports language acquisition or if it introduces unforeseen challenges that hinder authentic learning experiences and enhancements to the adaptability and interactivity in digital environments (Espartinez, 2024; Westera et al., 2020). The integration of artificial intelligence in the field of English Language Learning has given the significant interest for scholar research (Fan & Zhang, 2024; Waluyo & Kusumastuti, 2024).

Despite the growing volume of research emphasizing the advantages of AI in EFL—such as improvements in writing ability, motivation, and overall learning outcomes (Teng, 2024; Darwin et al., 2024; AlTwijri & Alghizzi, 2024)—there is a research gap or notable lack of studies that critically evaluate students' concerns and challenge. While many learners extend their enthusiasm over AI's efficiency and accessibility, others raise problems regarding academic dishonesty, over-reliance on technology, and reduced opportunities for critical thinking and independent learning. This divide between optimism and skepticism reveals a gap in the field of literature: existing studies often overlook the complexity and sometimes contradicting cognitive and emotional responses students have toward AI. On top of that, limited attention has been given to applying cognitive frameworks like Kahneman's Dual Process Theory (2011) to interpret these responses, where intuitive (System 1) and reflective (System 2) processing offer insights into students' nuanced evaluations. The current study seeks to address this gap by examining how students perceive the integration of AI in EFL learning, using Dual Process Theory as

a lens for analysis. While AI tools may provoke immediate engagement and efficiency, they can also stimulate deeper concerns about ethical practices and pedagogical effectiveness. Although a large number of EFL students convey their enthusiasm and positive insight focus on how to improved understanding and motivation, some are careful about potential long-term drawbacks such as diminished creativity and genuine language acquisition. By investigating these students perception, this research seeks to offer a balanced interpretation of both the perceived benefits and limitations of AI in the EFL classroom, contributing a more holistic view that has been underrepresented in current literature.

Method

The study explores the EFL learners' perceptions of AI integration into language learning in terms of advantages and disadvantages through qualitative research methods. The qualitative approach was undertaken since it can better uncover the nuances of lived human experiences and subjectively real worlds situated within a relevant context (Luo et al., 2023). From an English course in Medan, where one of the researchers had previously been teaching, participants were selected using convenience sampling from a Junior-Teenager Conversation class. The researchers used a non-probability sampling method known as convenience sampling, which allows easy access to participants (Giday & Perumal, 2024; Golzar, 2022). The participants included 14 students - a mixed-gender group of different academic levels who happened to be in the same class.

For data collection, a two-part questionnaire was used as the data collection instrument to encourage both intuitive (Part I: multiple choice) and reflective (Part II: open-ended question) comments from students concerning AI tools in language learning. Section 1 (System I: Intuitive, Emotional and Automatic Reactions) contained items on their general positive and negative feelings and experiences with AI in learning. The second segment (System II: Analytical, Reflective, and Critical Evaluations) focused on the perceived advantages and disadvantages of AI in language learning. The questions were adapted from previous studies (36, 37) to align with the study's objectives.

The participants who expressed their interest were contacted for more information on the objectives of the research, and confidentiality of the data was maintained. The participants attended classes in a traditional manner and then completed a questionnaire that incorporated their experiences and perspectives of AI-based tools (including

ChatGPT) that they had experienced in the context of their academic activity.

thematic analysis approach guided by Braun and Clarke's (2006) framework to systematically examine the qualitative data. This method was chosen for its flexibility in identifying, analyzing, and reporting patterns (themes) within the dataset while maintaining methodological transparency. The analysis process began with researchers immersing themselves in the data through repeated readings of all questionnaire responses, which facilitated deep familiarity with both the explicit content and underlying nuances of participants' answers. Following this immersion phase, researchers conducted initial coding by systematically labeling meaningful segments of text that related to the research questions, using both inductive (data-driven) and deductive (theory-informed) approaches. These codes were then organized into preliminary categories through an iterative process of comparison and refinement, with researchers engaging in ongoing discussions to ensure consistent interpretation.. After thorough examination and re-evaluation, the codes were classified into themes, allowing for determination of commonality and associations (Nguyen et al., 2023). The rigorous process ensured a close correspondence between the research findings and data collected from the participants, and between the findings and the study aims.

Findings and Discussion

The findings are categorized into three main parts: firstly, EFL Students' Perceptions of AI-integration in Learning Process; secondly, the perceived benefits of AI in learning; and thirdly, The Perceived Drawbacks and Limitations of AI-integration in Learning Process. The distribution of responses can be observed in Table 1.

Table 1
The Distribution of Students' Responses regarding the AI-integration in the Learning Process

Category	Item/Response	Frequency	Percentage
Perception	Interesting	10	71%
	Optimistic	1	7%
	Amazed	3	22%
Positive Experiences	Belief in AI's positive learning impact	4	28,6%
	AI improves learner effectiveness	3	21,4%
	AI generates better results than learner	1	7,1%
	AI is user-friendly	6	42,9%
	Using AI is cheating	5	35,7%
Negative Experiences	AI reduces effort in learning	9	64,3%

Perceived Benefits	Informative, clear responses	5	35,7%
	Efficient and valuable for learning	4	28,6%
	Good supplementary resource	2	14,3%
Perceived Drawbacks	Enhances learning effectiveness	3	21,4%
	Promotes cheating	5	35,7%
	Reduces deep learning/critical thinking	8	57,1%
	No drawbacks mentioned	1	7,2%

EFL Students' Perceptions of AI-integration in Learning Process

Consistent with the initial findings, the large majority of participants were willing to accept AI integration into the learning process. They described technology as “awesome” and “promising”, highlighting how it boosted their confidence in language proficiency and generated feelings of hope and curiosity. These responses also found in the previous research indicating that leveraging AI would assist in developing an interactive learning environment that captivates students' attention (Dai and Liu, 2024; Alshumaimeri and Alshememry, 2024). The emotional responses from students also affirm the motivational impact, particularly the response of surprise and interest, of AI-integration in the language learning (Daweli and Mahyoub, 2024). In addition, students showed significant interest and moderate motivation towards AI, indicating the significant role of AI to promote student engagement and more personalized learning paths (Chellappa & Luximon, 2024).

Regarding positive experience, most students believe AI gives the impression of being user-friendly. Many commented on the ease of navigating tools such as ChatGPT or Grammarly, consistent with Wulyani et al. (2024), who observed similar usability satisfaction. Moreover, it has been observed that the students have a positive perspective on the usage of AI in the learning process. This is confirmed by previous studies that showed that students' attitudes and perceptions about the use of AI in the use of EFL are both quantifiable and qualifiable and positive in nature (Ali, 2019). Moreover, they claimed AI helps them learn better and get results that are better than their own. Such results prove the claim that the AI tool is indeed a valuable and productive tool that promotes knowledge acquisition and idea generation leading to potentially improved

academic performance (Pasenta & Chakim, 2024; Shoufan, 2023).

However, responses were not all positive. Five participants (35,7%) expressed ethical concerns, stating that performing academic tasks and examinations using AI tools may be seen as academic deception. As discussed in the earlier study about the ethical implications of AI in education, AI may eventually confuse learning and cheating, straddling a fine line (Stöhr et al., 2024). Moreover, also, there was this proportion of 64,3%, the rest defenders warning about some defects of AI for learning — they are more than half of the total number of respondents — claim that AI makes a negative sense of learning. AI systems offer answers and solutions after the least amount of effort, which can dissuade students from spending hours doing research and retrieving information, they argued (Duhaylungso and Chavez, 2023). This has the potential to result in a drop in creativity, excessive dependence upon AI, and issues around ethical questions like plagiarism and data polarity (Zhai, Wibowo, & Li, 2024).

Participants identified several perceived benefits of AI integration. Five participants (35,7%) noted that AI provides informative and well-explained responses, which enhanced their understanding of the material (Labadze, Grigolia, & Machaidze, 2023). Another participants with the percentage of 28,6% agreed, viewing AI as a valuable and efficient tool for supporting learning. This is a feature provided by AI as tutor intelligence, which is beneficial for use as a study partner, for offering clarifications and explanations on a variety of topics (Crawford et al., 2023; Fauzi et al., 2023; Lo, 2023; Qadir, 2023; Shidiq, 2023). Two participants (14,3%) described AI as a helpful supplementary resource that enriches their educational experience. Artificial intelligence (AI) has the prospective to facilitate the creation of a multitude of media and learning tools for each language skill, thereby enhancing the abilities of language learners (Kamalov, Calonge, & Gurrib, 2023). Additionally, the remaining three with the total percentage 21,4% of participants emphasized that AI enabled them to study more efficiently and effectively, suggesting that its use facilitated a more streamlined and productive approach to learning (Genelza, 2022). These findings also underscore the positive impact of AI in supporting students' academic progress, as discussed by Alammari (2024), who highlights AI's potential to create more efficient learning environments.

The Perceived Drawbacks and Limitations of AI-integration in Learning Process

The third layer of findings highlights the primary perceived disadvantages of AI integration,

as identified by students. Five participants (35,7%)(expressed concerns about academic dishonesty, arguing that AI could facilitate cheating by allowing students to finish assignments without fully participating in the learning process. Nevertheless, these concerns are mitigated by the advent of novel cheating-detection strategies, which have given rise to a multitude of "arms races" (Oravec, 2023).

Moreover, 8 participants with the total of 57,1% cited the potential harm AI could do to learning as the second significant drawback. They argued that students can generate the answers in less efforts which diminishes the critical thinking skills. This argument proves the literature on education regarding the necessity of striking a balance between cognitive involvement and technological instruments (Malik, et al., 2023). However, one student with the number of 7,2%, argues that no drawbacks or limitations associated with AI. This emphasizes the separate perception, with some students recognizing the potential for AI to undermine academic integrity and deep learning, while others view it as a neutral or even beneficial tool (Vidaurre, et al., 2024). These differing viewpoints reflect ongoing debates within the field about the role of AI in modern education (Al-Zahrani, 2024).The research reveals a nuanced perspective on AI integration in the learning process which suggest that there is a necessity recognize both the benefits and challenges associated with AI tools in language learning.

Conclusion

The connection between the benefits and drawbacks represents the instinctive responses and critical assessments of students' perceptions. The study reveals that students recognise the significant advantages of AI integration in the EFL learning context. It shows the provision of personalised learning experiences, an enhancement in the self-directed learning and the improvement of the communicative skills which is facilitated by the feature of AI through chatbots and real-time feedback mechanisms. The integration of Artificial Intelligent engage and supports the academic achievements by providing assistance and immersive experiences align with the broader potential of AI in adaptive and inclusive education. However, this is also raising the concerns about the over-reliance on AI-generated content, emphasising the role of using AI as supplementary tool rather than as a replacement for human instruction. The concern also includes in the ethical and pedagogical regarding the accuracy and the necessity for critical evaluation of AI outputs. These findings highlight the dual nature of AI's impact, whereby technological advantages are

accompanied by limitations that require careful navigation. It indicates that further research is necessary to investigate the long-term impacts of AI in language learning and the strategies for balancing the technology and human pedagogical approaches.

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