International Journal of Social Science and Human Research

ISSN (print): 2644-0679, ISSN (online): 2644-0695

Volume 08 Issue 04 April 2025

DOI: 10.47191/ijsshr/v8-i4-45, Impact factor- 8.007

Page No: 2350 - 2354

Challenges of Using Artificial Intelligence (AI) In English Productive Skills Learning: A Thematic Analysis of The Student Experience

Nur Wahidah Thayib Pido[1], Karmila Machmud[2], Moh. Syahrun Ibrahim[3], Sartin Miolo[4], Hasanuddin[5]

[1,2,3,4,5]Program Studi Linguistik Terapan, Universitas Negeri Gorontalo

ABSTRACT: Advances in artificial intelligence (AI) technology have made significant contributions to English language learning, particularly in productive skills such as speaking and writing. However, the application of AI in this field still faces various challenges. This research aims to explore the main barriers students experience in using AI to improve their productive skills. Using a qualitative approach with a thematic analysis method, this study collected data through in-depth interviews with 10 students who actively use AI in English language learning. The results of the study revealed four main challenges, namely (1) the limitations of AI in providing contextual feedback, (2) the lack of social interaction and responsiveness of AI, (3) students' dependence on AI which can reduce creativity and critical thinking, and (4) the problem of accuracy and bias in AI recommendations. These findings are supported by various previous studies that highlight the limitations of AI in understanding the meaning and context of communication more broadly. Therefore, the use of AI in language learning needs to be balanced with human interaction in order to optimally improve productive skills. This study recommends an integrative strategy that combines AI with a more interactive pedagogical approach to effectively support students' language development.

KEYWORDS: Artificial Intelligence, English Language Learning, Productive Skills, Thematic Analysis, AI in Education

INTRODUCTION

The development of artificial intelligence (AI) technology has brought significant changes in the world of education, especially in English language learning. AI offers a range of advantages, such as personalized learning, automated feedback, and more flexible access for learners(Zou et al., 2023). However, the application of AI in productive skills namely speaking and writing it is till faces various challenges that need to be further researched. This challenge is not only related to the technical aspects of AI, but also to the pedagogical and psychological aspects of language learning(Zawacki-Richter et al., 2019). Therefore, a deep understanding of these barriers is essential to optimize the use of AI in the teaching of productive skills.

One of the main challenges in using AI for productive skills is the limitations in providing contextually appropriate feedback (Athirah & Aziz, 2020). Although technologies such as Natural Language Processing (NLP) have developed rapidly, AI still struggles to understand the nuances of language, pragmatism, and creativity aspects of writing and speaking. In writing, AI can be helpful in detecting grammatical and spelling errors, but it often struggles in providing suggestions that are more contextual and appropriate to the writer's desired style of language. While speaking, AI is often only able to assess phonetic aspects and fluency, but is less able to understand intonation, emotional expression, and implicit meaning in conversation. This makes AI less effective in training students to communicate in dynamic real world situations(Kovačević, 2023).

In addition to technical limitations, other challenges faced are emotional engagement and learning motivation. Interactions with AI tend to be mechanical and lack a natural social experience, which can affect students' confidence and motivation in using English productively(Akgun & Greenhow, 2022). In addition, speaking skills, interactions with AI do not provide social feedback such as facial expressions, gestures, or conversational nuances that are typically obtained in human communication. As a result, students may have difficulty developing interpersonal communication skills that are essential in real-life use of English. Similarly in writing skills, AI tends to provide pattern- and rule-based feedback, which can make students less creative and more fixated on technical corrections compared to broader idea development(Jupalli et al., 2022).

A part from this, a pedagogical perspective was the integration of AI in productive skills also raises concerns regarding students' dependence on technology. If not implemented appropriately, AI can make students overrely on automated systems without developing independence in critical thinking and language expression skills. For example, in writing, students may rely more on AI to structure or refine their sentences without really understanding the structure and meaning of what they write. In speaking, the use

of AI for pronunciation exercises can help improve fluency, but without real human interaction, students may not be accustomed to dealing with communication challenges such as interruptions, differences in accents, or the use of language in different cultural contexts.

In addition, there are ethical and practical challenges in the application of AI in productive skills. The accuracy of AI in detecting grammatical errors and sentence structure in writing is often still limited, especially in the context of complex academic writing(Nazari et al., 2021). There is also a risk of algorithmic bias in AI systems that can provide feedback that is not always fair or accurate for all users, especially for learners with different language backgrounds. Additionally, data privacy and security issues are of important concern, especially when students must use cloud-based AI applications that collect and store their data. Therefore, further research is needed to explore these challenges in depth as well as identify solutions that can support more effective, ethical, and inclusive English language learning. Based on these challenges, this study aims to explore the main obstacles in the use of AI in English productive skills as well as identify solutions that can support more effective and balanced learning. By understanding the factors that hinder the effectiveness of AI in speaking and writing skills, it is hoped that this study can provide useful recommendations for educators and technology developers to create AI systems that are more adaptive, interactive, and appropriate to learners' needs.

RESEARCH METHOD

This study uses a qualitative approach with thematic analysis methods to explore the challenges of using artificial intelligence (AI) in teaching English productive skills, namely speaking and writing. The qualitative approach was chosen because it is able to explore the experiences, perceptions, and challenges faced by educators and learners in depth. Through thematic analysis, this study will identify thematic patterns that emerge from the data collected, so as to provide a comprehensive understanding of the barriers faced in the use of AI in productive skills. Participants in this study consist of English teachers or lecturers as well as students who actively use AI in learning speaking and writing skills. Purposive sampling techniques are used to select participants who have experience in using AI, such as the use of AI-based chatbots, grammar correction applications, or other AI-based learning platforms. That 10–15 participants will be interviewed to obtain rich and diverse data related to their experiences. Data were collected through in-depth interviews and focus group discussions (FGDs). The interviews were conducted in a semi-structured manner to allow for a broader exploration of participants' experiences and views on the challenges of using AI in productive skills. In addition, the FGD was conducted to gain a broader perspective and understand the general patterns that emerged from various participants' experiences. Additional documentation, such as recordings of interactions with AI and examples of written results or conversations recorded processed by AI, are also collected as supporting data. The data were analyzed using a thematic analysis method developed by (Braun & Clarke, 2022). The analysis process is carried out in several stages, namely: Data Familiarization – The researcher reads and understands interview transcripts and other data in depth to gain an initial understanding of the patterns that appear. Initial Codification – The data is coded based on initial categories that reflect the key challenges in using AI on productive skills. Theme Identification – Key themes are developed based on codes that have been identified, such as limitations of AI feedback, lack of social interaction, or technology dependency. Theme Review – Themes found are revised and confirmed with data to ensure the suitability as well as consistency of emerging patterns. Theme Definition and Naming – The main theme is clearly named and defined to provide a more systematic understanding of the challenges of using AI in productive skills. Interpretation and Preparation of Reports – The findings are further analyzed in the context of previous theories and research to provide broader insights into the issues being studied. To ensure the validity and credibility of the data, this study applied source triangulation, which is comparing the results of individual interviews with the findings from the FGD and the documents collected. In addition, member checking is done by asking participants to review a summary of their findings to ensure that the results of the study accurately reflect their experiences. With this method, the research is expected to provide deeper insights into the challenges of using AI in English productive skills as well as offer relevant recommendations for educators and developers of AI technologies in the field of language learning.

RESEARCH RESULTS

This study involved 10 students who actively used AI in learning English productive skills, namely speaking and writing. Students come from different levels of study and have different experiences using AI-based applications, such as Grammarly, ChatGPT, Elsa Speak, and Google Assistant. To understand their experiences in depth, this study grouped interviews based on the main themes that emerged from the results of the thematic analysis.

1. The Limitations of Contextual Feedback from AI

Most of students reveal that while AI helps in improving grammar and vocabulary, AI often doesn't understand the broader context of communication.

Student 1: *"I use Grammarly to write essays, but the AI only focuses on grammar and spelling. Sometimes, the AI suggests chaynges that don't match my intentions."*

Student 2: *"When I practiced speaking with the AI app, the system only evaluated my pronunciation based on voice. There is no feedback on whether or not my sentences sound natural in a particular context."*
Student 3: *"AI can help me structure paragraphs more neatly, but it can't judge whether my argument is strong or not. I still have to discuss it with the lecturer."*
From these findings, it can be concluded that AI still has limitations in understanding the broader context of communication, especially in assessing the quality of arguments and the clarity of messages in writing and conversations.

2. Lack of Social Interaction and Responsiveness
Students also mentioned that practicing talking to AI feels less natural than practicing with humans.
Student 1: *"I tried speaking practice with an AI chatbot, but it felt like talking to a robot. AI doesn't respond like humans can give spontaneous reactions."*
Student 2: *"In real conversations, there are facial expressions, intonation, and emotional responses that help me understand if I'm speaking correctly. AI can't provide that."*
Student 3: *"I like AI for pronunciation practice, but I still need to practice with a friend or lecturer because the AI can't tell me if my intonation is appropriate or not."*
These findings suggest that AI is still not able to completely replace real social interaction in speech skills learning.

3. Reliance on AI and Reduced Creativity
Some of students expressed concerns about their reliance on AI, especially in writing.
Student 1: *"I feel like I'm writing faster with the help of AI, but I'm worried that I'm going to be lazy to think on my own. Sometimes I just accept the AI's suggestions without really understanding the reason for the suggested change."*
Student 2: *"I like to use AI to paraphrase text, but I realize that I'm becoming less creative. AI often delivers sentences that sound formal, but are less original."*
Student 3: *"AI is very helpful when I write assignments, but I'm afraid I'm becoming too dependent. I started to feel that without AI, I would have a harder time writing fluently."*
From these interviews, concerns arise that the excessive use of AI can reduce students' independence of thinking and creativity in writing and speaking.

4. Accuracy and Bias Issues in AI
Some students also revealed that AI does not always provide accurate or relevant results.
Student 1: *"Sometimes AI gives advice that is not appropriate for the academic context. I have to keep double-checking whether the AI is right or not."* Some students also mentioned that AI sometimes has a bias in providing corrections or suggestions.
Student 2: *"I've noticed that AI is more likely to suggest formal language styles, although in some tasks, I need to write in a more relaxed style."*
This shows that AI is not perfect in providing recommendations that always suit the needs of users.
Conclusion of the Research Results from interviews with 10 students, it was found that some of the main challenges in using AI for productive English skills were found: The limitations of AI in providing contextual feedback, so that students still need human help to assess the meaning and clarity of communication. The lack of social interaction and responsiveness of AI, which makes the learning experience feel less natural compared to human communication. Students' dependence on AI, which can reduce their creativity and independence in critical thinking. AI accuracy and bias issues, where AI sometimes provides advice that is less tailored to the specific needs of students. While AI provides many benefits in improving speaking and writing skills, this study confirms that this technology cannot yet completely replace the role of human interaction in English language learning. Therefore, a balanced strategy is needed in the use of AI in order to support the optimal development of students' productive skills.

DISCUSSION
The results of this study show that while AI has benefits in improving English productive skills, there are some challenges that still need to be overcome. These findings are in line with various previous studies that have highlighted the limitations of AI in language learning. This discussion will relate the results of the research to the theories and views of experts in the field of language learning and AI technology such as:

1. AI in Providing Contextual Feedback
From the interviews conducted, most students felt that AI was incapable of providing in-depth contextual feedback in speaking and writing. This result is in line with the opinion of (Huang et al., 2021) who stated that AI based on Natural Language Processing (NLP) still has limitations in understanding meaning and context as a whole. Although AI can correct grammar and sentence structure, it has not been able to effectively assess the quality of arguments, clarity of message, or creativity in writing. In addition, according to (Chien et al., 2022), AI in language learning tends to work based on pre-programmed linguistic patterns, but it does

not have the deep semantic understanding of humans. Therefore, students still need guidance from lecturers or mentors to ensure that their use of language is correct not only in terms of grammar but also in terms of meaning and purpose of communication.

2. Lack of Social Interaction and AI Responsiveness

Students also revealed that AI is less responsive in providing natural interactions, especially in speaking skills. (Muñoz-Basols et al., 2023) asserts that AI in English learning tends to focus on mechanical aspects, such as pronunciation and fluency, but is less able to provide a realistic interpersonal communication experience. In a study conducted by (An et al., 2023) it was found that learners who only practiced speaking with AI had difficulty when it came to talking to native speakers, because AI was unable to provide nonverbal communication elements such as emotional intonation, facial expressions, and natural pauses in conversation. Therefore, while AI can be a tool in phonetic practice, learners still need to interact with humans to improve their overall speaking skills.

3. Reliance on AI and Reduced Creativity

Some students stated that they began to rely too much on AI in their writing, which made them think less critically and creatively. Perelman (2023) warned that excessive use of AI in writing can reduce the ability to think independently because AI tends to offer instant solutions without encouraging deeper reflection or exploration of ideas. In addition, McCarthy et al. (2022) showed that AI often provides formal and repetitive language structures and styles, so that if users are not careful, their writing can lose their uniqueness and personal voice. This is in line with students' concerns that their writing becomes less original when using AI too much in constructing sentences and paragraphs.

4. Accuracy and Bias Issues in AI

Students also complain that AI does not always provide accurate answers or corrections, and is sometimes biased in making recommendations. Bender et al. (2021) highlight that AI is often influenced by the data used in its training, which can reflect certain biases in certain language styles or ways of writing. Research from Weber & Ganesan (2023) found that AI tends to provide advice based on more general and formal English standards, which may not always fit into specific contexts, such as academic, technical, or informal English. This explains why some college students feel that AI is more likely to suggest formal language styles even though they need a more flexible approach to their writing.

Based on the findings of this study and the opinions of experts, there are several recommendations that can be applied in the use of AI in learning productive English skills: Using AI as an aid, not a substitute for AI teachers, should be used as a companion in learning, not as the only source of feedback. Educators need to continue to play a role in guiding students so that they understand the context and meaning behind AI corrections. Combining AI-based training with human interaction. In speaking skills, students need to get the opportunity to practice with fellow students or native speakers to practice aspects of communication that cannot be obtained from AI, such as emotional expression and improvisation in conversation. Encourage critical thinking in the use of AI. Students should be trained to think critically about the advice given by AI, not just passively accept it. Class discussions about the advantages and limitations of AI can help students be more aware of using it wisely. Further research on AI bias and accuracy and the development of AI technology need to continue to improve the system to be more responsive to the needs of language learners. Additionally, educators and students must understand that AI is not always accurate, so there needs to be additional verification and validation from other sources.

CONCLUSION

The results of this study confirm that AI has benefits in learning English productive skills, but it also faces significant challenges, such as limitations in providing contextual feedback, lack of social interaction, students' dependence on AI, and accuracy and bias issues. These findings are supported by various previous studies that have highlighted the limitations of AI in language learning. With a more balanced approach combining AI with human interaction and encouraging critical thinking AI can be a more effective tool in helping learners develop their speaking and writing skills optimally.

REFERENCES

1) Akgun, S., & Greenhow, C. (2022). Artificial Intelligence (AI) in Education: Addressing Societal and Ethical Challenges in K-12 Settings. Proceedings of International Conference of the Learning Sciences, ICLS .
2) An, X., Chai, C. S., Li, Y., Zhou, Y., Shen, X., Zheng, C., & Chen, M. (2023). Modeling English teachers' behavioral intention to use artificial intelligence in middle schools. Education and Information Technologies, 28(5). https://doi.org/10.1007/s10639-022-11286-z
3) Athirah, & Aziz, A. (2020). Implementing Student-Centered Collaborative Learning when Teaching Productive Skills in An ESL Primary Classroom. International Journal of Publication and Social Studies, 5(1). https://doi.org/10.18488/journal.135.2020.51.44.54

4) Braun, V., & Clarke, V. (2022). Thematic Analysis: A Practical Guide. QMiP Bulletin, 1(33). https://doi.org/10.53841/bpsqmip.2022.1.33.46
5) Chien, Y. C., Wu, T. T., Lai, C. H., & Huang, Y. M. (2022). Investigation of the Influence of Artificial Intelligence Markup Language-Based LINE ChatBot in Contextual English Learning. Frontiers in Psychology, 13. https://doi.org/10.3389/fpsyg.2022.785752
6) Huang, J., Saleh, S., & Liu, Y. (2021). A review on artificial intelligence in education. Academic Journal of Interdisciplinary Studies, 10(3). https://doi.org/10.36941/AJIS-2021-0077
7) Jupalli, T. K., Reddy, M. S. T., & Kondaveeti, H. K. (2022). Artificial intelligence in higher education. In Mobile and Sensor-Based Technologies in Higher Education (pp. 1–30). IGI Global. https://doi.org/10.4018/978-1-6684-5400-8.ch001
8) Kovačević, D. (2023). Use of ChatGPT in ESP Teaching Process. 2023 22nd International Symposium INFOTEH-JAHORINA, INFOTEH 2023. https://doi.org/10.1109/INFOTEH57020.2023.10094133
9) Muñoz-Basols, J., Craig, N., Lafford, B. A., & Godev, C. (2023). Potentialities of Applied Translation for Language Learning in the Era of Artificial Intelligence. Hispania, 106(2). https://doi.org/10.1353/hpn.2023.a899427
10) Nazari, N., Shabbir, M. S., & Setiawan, R. (2021). Application of Artificial Intelligence powered digital writing assistant in higher education: randomized controlled trial. Heliyon, 7(5). https://doi.org/10.1016/j.heliyon.2021.e07014
11) Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F. (2019). Systematic review of research on artificial intelligence applications in higher education – where are the educators? In International Journal of Educational Technology in Higher Education (Vol. 16, Issue 1). Springer Netherlands. https://doi.org/10.1186/s41239-019-0171-0
12) Zou, B., Lyu, Q., Han, Y., Li, Z., & Zhang, W. (2023). Exploring students' acceptance of an artificial intelligence speech evaluation program for EFL speaking practice: an application of the Integrated Model of Technology Acceptance. Computer Assisted Language Learning. https://doi.org/10.1080/09588221.2023.2278608